

APPENDICES TO THE EDUCATIONAL EFFECTIVENESS REVIEW REPORT

**Response to WASC Commission Action Letter of March 3, 2010 and
Additional Supporting Materials**

University of California, Merced

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ORGANIZATION OF THE APPENDICES

The Commission asks UC Merced to “incorporate its response to the issues raised in this action letter and to the major recommendations of the CPR team report into its Educational Effectiveness Review report.” The comprehensive nature of Initial Accreditation makes it difficult to organize our response to this request, as the [letter itself](#) [2, p.2] notes that “the Commission would like to highlight the following issues, which *overlap with but are not identical* to the team recommendations” [emphasis added]. Much of our response is embedded in the body of the EER report, but much also lies outside the scope of the required essays.

For each issue¹ raised in the action letter, we present a separate appendix (Appendices I-IV). To accommodate the ways in which the team report, including the team’s summative recommendations,² and the Commission’s action letter are *not* identical, we preface each sub-part of each appendix with pertinent quotations from the team report, the action letter, or both. Each appendix will also direct reviewers to any pertinent passages in the body of the EER, will add additional information and analysis, or both. The table below directs readers by Appendix to the relevant pages of the Commission’s action letter and the team’s report. All pages numbers refer to PDF, not document, pagination.

In addition to the four main appendices, we include two more: our responses to outstanding issues from the CPR report (Appendix V) and a chart that identifies where in the report we address each CFR (Appendix VI).

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| Appendix V. UC Merced Action Items from CPR | | |
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¹ The bolded sections of the [action letter](#) [2].

² See pages 46-47 (PDF pagination) of the Team [Report](#) [3].

³ PDF, not document, pagination

APPENDIX I: ASSESSMENT

A) Student Learning, Academic and Co-curricular

i) Academic Programs and Student Affairs (CFR 1.2, 2.3, 2.2, 2.4, 2.11, 4.3, 4.4, 4.6, 4.7, 4.8)

In its [letter](#) [2, p.2] of March 3, 2010, the Commission challenged UC Merced to:

- 1) refine learning outcomes throughout the university so they are assessable and so there are linkages from outcomes at the course and program level to the institution level;
- 2) develop methods of *direct* assessment to determine how well students are achieving these outcomes and to guide efforts to improve learning;
- 3) develop and implement multi-year assessment plans for program learning outcomes, with the leadership of the Faculty Accreditation Organizers;
- 4) strengthen collaboration between Academic Affairs and Student Affairs regarding the development and assessment of co-curricular programs;
- 5) optimize access to and use of data to inform campus-wide planning and improvement; and
- 6) produce findings about student learning and development by the time of the Educational Effectiveness Review (EER) visit. (CFRs 1.2, 2.3, 2.4, 2.10, 2.11, 4.6, 4.7)

We address assessment of student learning substantially throughout the EER report, taking the effectiveness of our assessment processes as one of the fundamental questions by which we structured our self-study. Below, however, we key descriptions of our assessment efforts to each of the Commission's six challenges.

- 1) *Refine learning outcomes*: Our Educational Effectiveness Review Report provides examples of continued attention to and refinement of learning outcomes since the Capacity and Preparatory Review. With respect to Program Learning Outcomes (PLOs), these include
 - a. Four programs revising their PLOs in response to their assessment experiences; the PLO Reports of three additional programs note that revisions to one or more PLOs will be considered [39];
 - b. The Ad-Hoc Committee to Review PLO Reports recommended PLO revisions to four programs [55];
 - c. Revision of the [Environmental Science and Sustainability Minor PLOs](#) [311] in response to feedback from the Undergraduate Council of the Academic Senate [263].

We also examined trends in syllabus development, estimating the percentage of syllabi that contain learning outcomes and the level of development of these outcomes with respect to their susceptibility to assessment and the explicitness of their connection to course curriculum. Recognizing that linking course to program learning outcomes in syllabi has

been unevenly encouraged⁴, we also estimated the percentage of syllabi in which this connection is made with the goal of improving alignment in the future.

As of fall 2010, approximately 95% of undergraduate syllabi and between 84 and 100% of graduate syllabi [312, Tables A and B], excluding units for independent study and similar tutorial-like courses, can be expected to include learning outcomes. Rates remain high when syllabi for independent research-related units⁵ are included [312, Tables C and D]. With respect to the degree to which course-level outcomes are assessable⁶, approximately 75% of undergraduate and graduate syllabi have been judged to be developed or highly developed since Fall 2009 [314, Table E]. Collectively, these results suggest that we have been able to increase the percentage of syllabi with learning outcomes [312], while simultaneously maintaining the quality of outcomes [314, Table E], even as we have added new faculty and new courses. That said, we will work to increase the percentage of learning outcomes judged to be at least “Developed.” This might best be accomplished by integrating syllabus alignment into our annual assessment practices.

We have not done as good a job making transparent the connections between course curriculum and course learning outcomes in syllabi, with about two-thirds judged to be emerging with respect to the explicitness of this alignment⁷ [314, Table F]. In undergraduate syllabi, course and program-level outcomes are also expressly linked at relatively low rates [315, Table G]. However, these numbers underestimate the true degree of alignment due to the difficulty of identifying ‘service’⁸ courses that reasonably would not include such connections. Course and program-level outcomes are explicitly aligned in approximately 60% of graduate courses [315, Table H]. The results of this syllabus analysis project will be shared with SACA and the Schools to improve all criteria evaluated but particularly to increase the transparency of connections between course curriculum and course and program level outcomes in support of student learning.

This is not the only measure of alignment. Program Assessment Plans [32] reflect on how faculty see course alignment with both program and General Education outcomes. Thus, linkages between course level and program level outcomes also are being clarified and refined through

- a. The expectation that all academic assessment plans include curriculum maps [31] articulating the alignment of course and program level learning outcomes and PLOs and the Eight Guiding Principles of General Education. One hundred percent of academic program assessment plans align PLOs to the Eight Guiding Principles [36] and all but four include curriculum maps illustrating connections between course and program levels outcomes⁹ [316, 32]. With respect to the latter, all but three indicate progressive levels of development or emphasis through the program’s curriculum [32].

⁴ Political Science faculty are the exception in their regular inclusion of PLOs in *all* syllabi. Several other programs, in response to their first PLO assessment, have articulated the need to make such links explicit in syllabi [39, 80].

⁵ And therefore are submitted for individual students.

⁶ Evaluated using the Explicitness criterion of the *UC Merced Rubric for Creating and Aligning Student Learning Outcomes* [313], which describes the specificity of the learning outcome.

⁷ Evaluated using the Explicitness criterion of the *UC Merced Rubric for Creating and Aligning Student Learning Outcomes*, which describes the specificity of the learning outcome [313].

⁸ Courses that serve students from multiple majors.

⁹ Literatures and Cultures noted that a curriculum map could not be developed until their assessment question had been answered.

- b. The annual assessment process. Programs reported diverse modifications to the curriculum and to assessment practices [39, 80, 35], most of which are intended to tighten connections between course-level practices and outcomes and program level outcomes. If adopted, revisions to the assessment process suggested by the Ad-Hoc Committee to Review PLO Reports [55] should further strengthen these connections. (We report further on these points in Essay II.)

Student Affairs units have also improved the quality of their program level student learning outcomes as well as their alignment with program goals (See Essay II). To further connect co-curricular student learning to the academic curriculum, the Division has initiated the alignment of unit programming with the Division's Learning Outcomes and, in turn, the Eight Guiding Principles of General Education [38]. The goal is to begin developing and assessing, in 2011-2012, unit level outcomes that explicitly support achievement of Division and General Education outcomes.

That UC Merced will continue to attend to the assessability of learning outcomes and their articulation from course/unit to institutional levels is ensured by a number of key practices that have been or will be established. On the academic side, these include

- a. Annual assessment reporting guidelines that support reflection on the quality of learning outcomes [50], which includes
- b. Program self-evaluation [60] against a locally developed rubric [34] with criteria that address the assessability of program-level learning outcomes;
- c. Annual feedback to programs on the quality of their assessment practices, including their PLOs [55];
- d. Program Review policies that expect reexamination of curricular goals and alignment from the course through to the institutional level [121, 148].
- e. The placement of Assessment Specialists in the schools to support faculty development in relation to assessment [44].
- f. Coordination and oversight of the quality of assessment efforts across campus through SACA and the Director of Assessment [44].

Student Affairs is implementing processes to support similar outcomes (See Essay II and Essay V, Part A). These include

- a. Assessment planning and reporting template that clearly supports alignment of learning outcomes and goals [111].
- b. The use of locally developed rubrics that address the quality of outcomes to review assessment plans and reports [105,106].
- c. Support for assessment-related professional development via an annual retreat and coaching by the Assessment Coordinator.
- d. The implementation in summer 2011 of a committee to provide assessment-related feedback to Student Affairs units (see Essay V, Part A).
- e. Coordination and oversight of the quality of assessment efforts across campus through SACA and the Director of Assessment [44].

2) *Direct assessment.*

As described in Essay II, we are successfully making the transition from the use of indirect to direct evidence of student learning. All academic assessment plans require programs to identify direct evidence of student learning [31], all assessment plans include plans to examine direct evidence [32], and all but one reporting program examined direct evidence in their first PLO Report [89]. Programs are also using these results to revise curriculum, pedagogy, and to engage the co-curriculum to improve student learning outcomes [39]. The Division of Student Affairs is also moving toward direct assessment of student learning as indicated by the number of program's that proposed to ask students to directly demonstrate their learning or to collect other forms of direct evidence during the inaugural 2009-2010 assessment cycle [104, 112]. Finally, the Library is also engaging in direct assessment of student learning outcomes (see Part A ii below).

While our approach to programmatic assessment meets the challenges of finding and evaluating authentic direct evidence of student learning, it is less successful at developing direct evidence for cross-program learning. Indeed, the best evidence of student achievement of larger institutional goals may be, as the AAC&U [Integrative Learning VALUE Rubric](#) [281] suggests, indirect evidence in the form of student reflection. As described in the Essay V, Part B, the EER has helped us identify sources of such evidence so that we will in the future be better able to engage in this kind of cross-institutional assessment of student learning. We have also developed institutional structures to guide our inquiries, both in the development of a General Education committee [288] and in the development of a [Senate-Administration Council on Assessment](#) [42].

3) *Multi-year assessment plans for program learning outcomes.*

As of spring 2010, 86% (24/28) of undergraduate academic programs (majors, stand alone minors, and Core) have developed multi-year assessment plans [32, Table 7.1, File 4: Required Data Tables]. Of the four programs that have not yet developed multi-year assessment plans, two are minors with fewer than 5 students enrolled¹⁰ and one, Economics, is currently undergoing program review, one product of which should be an assessment plan. An assessment plan for the remaining program, Management, will emerge with program development planned for 2011-2012 (see Appendix IV, Part C). Of the 24 programs with multi-year assessment plans, all but two submitted the first annual PLO Assessment Report [35]. The three new standalone minors approved in AY 2009-2010¹¹ have developed multiyear assessment plans [32] and will begin assessment in AY 2011-2012.

With respect to graduate programs, UC Merced currently has two approved, independent degree granting programs, Environmental Systems and the Individual Graduate Program (IGP). The latter supports [eight graduate emphasis areas](#) [317]. Environmental Systems has developed a multiyear assessment plan [32] and began implementing it in 2009 [35]. As described in our CPR Report, emphasis areas will develop assessment plans as they proceed through the UC and WASC approval processes to become a standalone graduate program. Currently, three groups are in this process - Cognitive and Information Sciences, Psychology, and Quantitative and Systems Biology - and each is developing an assessment plan. Emphasis areas that do not plan to be reviewed for stand-alone status prior to their

¹⁰ American Studies and Service Science.

¹¹ Chicano/a Studies, Environmental Science and Sustainability, and Public Health

seventh year of operation, will undergo program review [124]. This will require development of an assessment plan. As promised in our CPR Report, graduate emphasis areas have developed learning outcomes [30].

In section 4.8 of their report, the [Visiting Team noted](#) [3, p. 41] “[UC Merced] describes plans for surveys of alumni and graduating seniors in many programs but says nothing of other stakeholders identified in the WASC criterion including employers, practitioners, or any other groups. It does not appear that UC Merced is prepared to meet WASC standards on this criterion.” As of fall 2010, 50% (14/28) of existing assessment plans describe intentions to survey alumni and 11% (3/28) to survey employers [Table 7.1, File 4: Required Data Tables]. Of the plans implemented this past year, two programs, Psychology and Political Science, conducted exit interviews with seniors [35]. The School of Engineering began annual surveys of its graduating seniors in 2009 [84], but the small number of graduates limits the value of these data to individual programs. The institution also surveys seniors [177, 185] and [alumni](#) [417]. The need for programs to further develop indirect lines of evidence was noted by the Subcommittee of the WASC Steering Committee that reviewed PLO Assessment Reports [66]. As our population of graduates grows, and thus enables meaningful feedback from employers and professional and graduate schools, we will work to integrate these groups into our evolving assessment practices.

4) *Strengthen collaboration between Academic Affairs and Student Affairs regarding the development and assessment of co-curricular programs.*

See Appendix III.

5) *Optimize access to and use of data to inform campus-wide planning and improvement.*

See Appendix III and Appendix IV, Part B.

6) *Produce findings about student learning and development by the time of the Educational Effectiveness Review visit.*

See Essay II and Essay V, Part B.

ii) **Library** (CFR 2.2, 2.3, 2.4, 2.11, 2.13, 3.6, 4.2, 4.3, 4.4, 4.6, 4.7)

The [Team Report](#) [3, p. 33¹²] team report emphasized the need for deeper assessment of the library:

[I]t was difficult for the team to assess the sufficiency of those information resources. Older input measures don't really apply (number of volumes, ratios of volumes/student/faculty, expenditures, number of reference staff, number of librarians, etc.), yet no new output measures are cited to measure user satisfaction, adequacy of materials for research, etc. The CPR report does not benchmark the information resources against any measures at other institutions, nor does it provide much information about usage or user satisfaction. At this point they are in a transitional or hybrid state between print and electronic resources, and while they understandably are looking to the future rather than the past in their planning,

¹² PDF, not document, pagination.

they need some way of assessing their sufficiency for the present. This design presents an interesting model, and feedback is generally positive. That said, an expanded inquiry model needs to be developed by the time of the Educational Effectiveness Review. There is a link to “Library Assessment Information” on the Library Website that contains results of a student survey in 2009, along with changes that have been made as a result of responses to the survey. More of that kind of assessment would be helpful. This said, at the moment, the infrastructure of the library does not appear to be a capacity issue—rather, it is an assessment and descriptive issue to be addressed.

Thus, the Team [listed](#) [3, p. 47] as one of three uncompleted CPR issues for UCM: “Directly address the technology and information resources provided by the library, documenting how in a practical sense students and faculty are able to use resources to further their objectives.” The Library’s response follows.

Executive Summary

- The UC Merced Library directly supports Program Learning Outcomes:
 - through careful coordination with the UC Merced Writing Program
 - with instruction that is explicitly prepared in conjunction with course syllabi
 - with subject- and course-specific guides, reference, and instruction
- Detailed and clarified data about the UC Merced Library collection, as well as comparisons to highly ranked libraries, validate that UC Merced faculty and students have immediate access to information resources that far exceed what is available at any library except for the very largest research university libraries.
- Funding and collection usage data with benchmark comparisons to other UC libraries and to ARL libraries show that the UC Merced Library would be very highly ranked within any prestigious research university comparison group.
- Assessment data and information from user surveys are now sufficient to guide action responses and to set benchmarks for ongoing assessment.

1. Program Learning Outcomes and Student Learning Outcomes

Regarding Program Learning Outcomes (PLOs) and Student Learning Outcomes (SLOs), the [WASC CPR Visiting Team Report](#) [3, p. 19] states, “There is little information presented on the role of the library in promoting this information.” Perhaps the reason for this is that everything the UC Merced Library does—from providing access to information resources, to instructing students in the use of those resources, to providing a library facility that promotes both individual study and collaboration—implicitly supports PLOs and SLOs. In the interest of making the implicit explicit, we point out the following examples:

- The head of the UC Merced Library’s instruction program works closely and collaboratively with the heads of the UC Merced Writing Program (the largest user of library instructional services) to ensure that both in-person instruction and the UC Merced Library’s online [Writing 10 Tutorial](#) [318] conform to the PLOs and SLOs of the Writing Program. Prior to instruction sessions, librarian instructors obtain copies of syllabi for Writing Program courses, and these syllabi include course SLOs as part of their content.

- Because the purpose of the Writing Program is to provide foundational courses that serve students throughout their entire university careers and beyond, the instruction and online tutorials provided for Writing Program courses are similarly foundational and are expected to have similar long-term impacts on learning outcomes and student success. We are in the process of gathering evidence to assess this.

When providing instruction for courses that are not part of the Writing Program, librarian instructors obtain (in advance) copies of each course syllabus as well as specific library-related assignments in order to ensure that the library instruction provided meets the course outcomes and supports student success. During a typical library instruction session, librarian instructors begin by pointing out to students the relevance of what is being taught to their academic goals and emphasizing the role of the library and information literacy in successfully completing course assignments. Examples of how this is achieved for both undergraduate and graduate level courses follow.

- Librarian instructors create web-based, course/subject-specific library guides that relate to the learning outcomes of the course for which instruction is being provided. Examples of these guides are found on the UC Merced Library web site at: <http://libguides.ucmercedlibrary.info> [319]. These guides are created to support learning outcomes and remain available for students to refer to not only during the semester they are taking a specific course, but also during later semesters when they may be taking courses with similar information requirements.
- Library instruction frequently covers such universal information-literacy topics as how to evaluate information resources (e.g. scholarly v. popular, primary v. secondary, reliable v. unreliable) and how to avoid plagiarism (both intentional and unintentional). This information-literacy instruction [320] is designed to inculcate students with the basic values of scholarship, the [Principles of General Education](#) [37] especially scientific literacy, decision making, communication, and ethics and responsibility), and, therefore, supports all PLOs and SLOs across the board.
- A number of additional examples of library instruction in support of undergraduate and graduate learning outcomes are available here [321].

2. Benchmarking Information Resources & Services

2.1 Collections

The [WASC CPR Visiting Team Report](#) [3, p.33] specifically mentions the difficulty of measuring the UC Merced Library collection by traditional measures and recommends benchmarking the collection against other institutions.

The following data speak to those traditional measures. However, it is important to first understand that the University of California Libraries operate as a collective and that the aggregate library collections of the ten UC campuses function legally and operationally as the University of California Library Collection. As [The University of California Library Collection: Content for the 21st Century and Beyond](#) [322] states:

The University of California Library Collection comprises all print and digital resources, archival collections, and shared purchases of the UC Libraries. It is an integrated, shareable

user-centric collection that supports and enhances the mission of the University of California and whose strength is derived from the diverse nature of the individual campus library collections.

The impact of this single, unified collection manifests itself in many ways, but perhaps most notably in that access to these information resources is via direct patron-initiated borrowing. When a library user obtains a book from another UC Library, 40% of these books arrive in three days or less; 54% arrive in four days or less; and 92% arrive in seven days or less. See [UCM Library Borrowing Turn Around Times 2009-2010](#) (Excel spreadsheet) [323]. The absence of inhibiting processes or delays that are typical of traditional interlibrary loan means that the access enjoyed by UC Merced faculty and students is equal to that of faculty and students on every other UC campus.

In the initial report to WASC, the UC Merced Library included a table showing information resources by format. Those data are reproduced and expanded with additional descriptive information to clarify and emphasize that UC Merced faculty and students have immediate access to information resources that far exceed what is available at any library except for the very largest research university libraries [324]. The numbers have been updated to reflect the [most recent formal report](#) [325] from the University of California.

An aggressive book digitization program by the UC Libraries and a leading role in [HathiTrust](#) [326] are integral components of the long-term discovery and access strategy of the UC libraries. The HathiTrust collection is a digital repository for the nation's great research libraries, including all of the UC libraries. The books comprising the HathiTrust collection are quality academic books scanned from the UC Library Collection as well as the collections of such other major research institutions as the University of Michigan, Columbia University, Ohio State University, University of Virginia, University of Wisconsin-Madison, and many more. Participation as a contributing partner enables access for all students and faculty of each partner to the complete HathiTrust online collection. UC libraries have contributed 2.7 million volumes and, in return, have gained access to the complete corpus of more than million volumes. The impact of this addition to the UC Library Collection is spectacular:

- Every UC Merced student, faculty, and staff member has unrestricted access for viewing, printing, and downloading each of the more than 6 million (and growing) books in the HathiTrust collection.
- Taken as a free-standing collection, the 6 million books in the HathiTrust collection is larger than the print holdings of all but the twenty-five largest of the 124 libraries that belong to the Association of Research Libraries. In other words, one could make the argument that the UC Merced Library should be ranked among the 25 highest-ranked academic research libraries.
- The true wealth of the information resources exposed by the HathiTrust is difficult to convey, but one example can be found in the first edition of Lewis Carroll's *The Hunting of the Snark*, first published in 1874 and available in full-text digital format via HathiTrust. Print versions of this edition are so rare that the OCLC database shows that only 28 libraries worldwide own a copy. Where a copy is owned, access is via a special collection with strict limits on when and how the book may be used. Thanks to HathiTrust, a book that was once all but impossible to access can now be retrieved with a simple catalog search and can now be studied page-by-page by all UC faculty and students without any restrictions. *The Hunting of the Snark* is but one example of how innovations like HathiTrust are liberating information

and leveling the playing field for inquisitive minds regardless of their campus affiliation or status.

2.2 Funding and services benchmarks

The libraries of the nine University of California campuses that predate UC Merced individually are considered to be premier among research university libraries. The UC Merced Library is a fully participating and equally sharing peer within that group. For example, the UC Merced University Library currently serves as Convener of the UC University Librarians Council, is a member of the [Executive Team for the UC libraries Next Generation Technical Services](#) [327], and represents the UC libraries on the [HathiTrust Strategic Advisory Board](#) [328]. UC Merced librarians sit on all of the UC systemwide library committees and have taken on leadership roles for a number of UC systemwide initiatives. Comparisons of the UC Merced Library to the other UC libraries provide solid benchmarks for evaluation.

2.2.1 Funding

UC libraries are arguably underfunded due to the current budget crisis, but funding is nonetheless sufficient to ensure high rankings for those that are members of the [Association of Research Libraries](#) [329]. (ARL uses library funding as a key indicator of capacity and resultant quality.) A comparison of the UC Merced library annual budget allocation to the number of students and faculty served places UC Merced fourth among the UC libraries [330]. In other words, the UC Merced Library would be favorably ranked even when compared to the membership of the prestigious Association of Research Libraries. (Among the UC Libraries, Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, and Santa Barbara are [ARL members](#) [331].) This is a solid indicator that the library is appropriately supported at UC Merced and that the library has the necessary resources to serve students and faculty.

2.2.2 Usage of information resources

There are myriad technical issues that make it effectively impossible to provide meaningful and comprehensive measures of the usage of electronic resources (ebooks, ejournals, databases, indexes, etc.). However, a sampling of available data does provide one measure of usage. The UC Merced Library has about 600,000 ebooks in the local collection (i.e., available only to UC Merced faculty and students).

- One subset comprises 24,000 titles supplied by Springer. During calendar year 2009, UC Merced faculty and students downloaded 8,350 full-text chapters from these books.
- A different subset comprises 42,000 titles supplied by Ebrary. During calendar year 2009, UC Merced faculty and students accessed this collection 44,460 times.

From these samples it is logical to conclude that the UC Merced Library collection is heavily used.

Another indicator of usage is per capita usage of local resources. According to the most [recent formal report](#) [325] from the University of California, the UC Merced Library is first among the UC libraries [332] in number of library items checked out.

An additional measure of quality can be seen in interlibrary loan data. For every ten books that UC Merced borrows from another library, we loan seven¹³. These are impressive numbers for a research library with a relatively small print book collection [324] and clearly demonstrate that the content of collection is in sync with research needs.

3. User Surveys & Assessment Data

The [WASC CPR Visiting Team Report](#) [3, p. 47] recommended that the UC Merced Library conduct user surveys to determine how students perceive the quality of the services and library resources. UC Merced Librarians have been collecting such data since before the compiling of the WASC Capacity & Preparatory Report, but that data had not been analyzed in time to go into the report.

Not all of the data collected [333] has yet been analyzed, but the UC Merced Library has already begun to respond to what we have learned about how our students use their library and its information resources. Both a “[Summary of Data from Multiple Assessments \(2009-2010\)](#)” [334] as well as the full report, “[Survey And Focus Group with Graduating Students Spring 2009](#)” [335] are available on the UC Merced Library web site.

The following summaries of student responses, along with actions taken by UC Merced Library, are based on our user survey data [333].

1. The UC Merced Library is providing a quality collection that students are using for their academic work. Students favorably referred to the availability and usefulness of the databases, journals, and articles.

Action:

- The library will continue to participate in CDL consortial licenses for electronic resources. The library will also continue to purchase print books through its approval plan and to respond to faculty requests for books, online journals, and DVDs. (Ongoing)

2. Though the library is providing an excellent collection, some students commented on the difficulty of finding information. This issue is not unique to UC Merced and is inherent in providing access to massive quantities of information.

Action:

- On the library web site, we have tagged recommended databases with a star icon in an effort to explicitly highlight some of the databases that may be of most interest to our library users and have included links to subsets of some databases. Example: <http://ucmercedlibrary.info/dblistmain.html?recommended=1> [336].
- In our database listing, we have included links to subsets of databases based on assignment requirements. These subset options limit a search to a specific number of resources within a database and can direct students to a group of acceptable resources for a specific course or assignment. Example: <http://ucmercedlibrary.info/doing-research/databases-subject-areas.html> [337].
- The UC libraries, in collaboration with [OCLC](#) [338] (the world’s largest library cooperative), are developing an advanced system that provides an integrated interface to

¹³ Unpublished UC Libraries 2009-2010 System-wide Report

the UC Library Collection, greatly reducing barriers to finding information. That system—Next Generation Melvyl—is in pilot phase, but it has already become the primary mode for accessing information resources within all of the UC libraries. UC Merced librarians have been actively involved in leadership and technical aspects of that project and will continue that participation. (Ongoing)

3. We are providing a versatile and welcoming physical space that meets multiple needs. Students like the physical space and its ability to meet various needs.

Action:

- We will continue to provide a space that serves multiple purposes. We are aware that both study and social places are needed for students on campus. (In Progress)

4. Though there were many positive comments about the space and library atmosphere, students expressed that there was not enough available quiet study space.

Action:

- The library has designated the entire 4th floor for quiet study. This is regularly monitored by student assistants. Furniture has been ordered to provide a 10% increase in seating for the quiet study area. (In Progress)
- The library has designated a seminar room on the 4th floor as a space for silent study.
- Library staff have consulted with Student Affairs staff to more effectively manage tours of the library building to prevent noisy interruptions and to preserve the quiet study zone of the 4th floor. Implementation has been successful. (Ongoing)

5. Students noted that they liked the collaborative study rooms but that it was almost impossible to ever find one available.

Action:

- The library is collaborating with the campus Information Technology department to implement an [online room-reservation system](#) [339] which will allow students to independently reserve a collaborative study room in advance. (This will be fully launched for Fall Semester 2010.)

6. The UC Merced Library is providing valuable services. Students appreciate several services available in the library, particularly interlibrary loan and printing capability.

Action:

- The library will continue to provide the ILL service and more staffing hours will be allotted to ILL starting in August 2009. (Ongoing & In Progress)
- Though many users noted that they used the ILL service heavily, others were unaware that they could request resources. As a result, library staff will continue to make users aware of this service through instruction opportunities, orientation presentations, and communication tools e.g. digital signage. (Ongoing & In Progress)

7. Students noted that they like the ability to print in the library but that the service is notoriously unreliable. In absolute terms, the amount of downtime is relatively small. However, when students plan on using the public printing service, any amount of downtime

is a serious problem. Even though the printers are located in the library, the library is not the provider of the service. Nonetheless, the library has chosen to take the leadership role in improving this service.

Action:

- Library staff met with key players on campus to take steps to resolve printing unreliability. The two unreliable black and white printers have replaced with new machines. All printers (2 black & white and 1 color) have been moved to a single location, room 369. Now, if one printer is malfunctioning, students can retrieve their print job from another printer in the same room rather than moving to another floor. (Completed Spring 2010)
- Student assistants have been provided with more explicit training in how to best respond to printing questions and how to perform basic troubleshooting. (Ongoing)

8. UC Merced Library is providing friendly, courteous assistance to our users though there is room to provide more knowledgeable assistance.

Action:

- Librarians revised portions of our student-library-assistant training during summer 2009 to improve our student- library assistants' knowledge and skills and enhance their ability to provide excellent customer service. (In Progress)
- Librarians will continue to be involved in summer orientations. This is an opportunity to introduce incoming students to library staff and services. (Ongoing)
- Librarians are making the process of transferring research related questions to librarians easier and more explicit for our student assistants through training and technology (e.g. walkie talkies). (Completed Spring 2010)
- In fall 2009 librarians began training selected student library assistants to offer roving reference assistance to library users in an effort to increase both the level and visibility of research help available to the library users. These student began providing this service at the start of Spring Semester 2010. (Ongoing)
- To raise awareness of the librarians and the services they offer, we began profiling our staff on the digital signage and on the website more prominently starting in Fall 09. (Ongoing)

9. Students expressed a desire for more print books in the collection.

Action:

- The library has done more to inform students of new titles that are available to the UC Merced community. Digital signage and static displays are two ways in which the library is promoting books that are new to the collection. (Ongoing)
- The UC Merced Library is committed to providing interlibrary loan services so that users can request and receive items that may not be available at UC Merced Library or not held in print when that is a user's preferred format. (Ongoing)

In conducting outcomes assessment, the UC Merced Library has learned much about how the process works, and does not work, on our campus. One of the barriers—necessary though it is—to

gathering assessment data is the process of clearing assessment project through the campus [Institutional Review Board](#) (IRB) [340] because of the use human-subjects aspect. Though librarians have learned much about how to work effectively with the IRB, the work of submitting and revising proposed assessment projects in order to receive IRB approval can be so onerous and time consuming that, in some cases, the librarians involved have chosen to forgo projects altogether or to gather data through non-IRB approved processes with the understanding that they will not be able to publish their findings. A major problem of collecting outcomes data from a relatively small student body is over surveying and the resultant survey fatigue among students. We have learned that to ensure student participation in our data-collection efforts, it is good practice to provide incentives, to incorporate survey instruments into course work, and to piggyback library surveys with those of other campus units.

In order to share what we have learned from, as well as how we have respond to, our outcomes-assessment efforts, the UC Merced Library has made our assessment processes and results publicly available at <http://ucmercedlibrary.info/library-assessment-information> [341]. The UC Merced Library has also shared information about our outcomes-assessment efforts at the monthly UC Merced Deans & Directors meeting, through articles that have (or will soon) appear in national professional journals, and through presentations at national professional conferences [342].

B) Administrative Assessment (CFR 4.2, 4.4, 4.5, 4.6)

The [Commission](#) [2, p.2] says “a system for use of assessment and other data at administrative unit and institutional levels should be established.” This elaborates the [Team recommendation](#) [3, p. 46] that UC Merced:

Establish a regular practice for assessment and the use of data at the institutional level for all administrative units (in addition to that already in place for academic units and selected administrative units, such as Student Affairs).

We address questions about data in Appendix IV. Regarding the assessment of administrative units, we responded in two ways. First, in May 2010, we undertook a review of current assessment infrastructure and practices in non-Student Affairs administrative units across the campus, soliciting responses from leaders with oversight of administrative responsibilities, e.g. Deans and Vice Chancellors [343]. This revealed that 71% (10/14) of administrative units¹⁴ have developed, or committed to developing, goals and outcomes by the start of AY 2010-2011, with 90% (9/10) of these expecting to initiate assessment during AY 2010-2011 or during summer 2011 [344]. Of the remaining units, two¹⁵ have committed to developing assessment related infrastructure during AY 2010-2011, and one, Information Technology, regularly assesses ongoing activities, although needs to organize project level assessments under larger unit-level goals and objectives. All units with extant assessment infrastructure have also aligned their mission, goals and outcomes with UC Merced’s mission [344]. The remainder is expected to do so as per newly adopted policy on administrative assessment [8, 258].

As part of this review, leadership was asked to provide examples of assessment work already undertaken and, as possible, the actions taken in response to findings [343]. Seven of 14 units responded with examples that included assessments of assessment infrastructure and practices, assessments of staff service commitments and resulting plans to shift staff efforts and unit funding models, and assessments of and improvements to key services, functions and educational activities, including through staff professional development [344].

Second, to formalize and unify expectations for administrative assessment, we developed a Policy for Annual Assessment and Periodic Review of Administrative Units [8]. In keeping with the goal of “recognize[ing] differences in the professional cultures of administrative units across the campus,” the policy is an umbrella that “outlines the minimum requirements for a coupled Annual Assessment and Periodic Review process.” Promulgating an outcomes focus, the policy establishes expectations for a formative, annual assessment process, the results, impacts and practices of which are reviewed collectively during formal, periodic review every seven years. The results of both annual and periodic assessment are to be integrated into the budgeting process at the unit level.

To connect this work to the larger campus community, as per policy, annual assessment and periodic review results will be shared with SACA [8]. This council will also provide feedback on the quality of assessment practices in support of continued development of this emerging practice [274]. Guidance for assessment planning and periodic review is provided in the form of templates appended to the policy [8], although units are free to develop their own annual assessment and periodic review policies and procedures in keeping with the expectations established by this policy. A periodic review schedule for non-Student Affairs administrative units has been established, with

¹⁴Responses were solicited from non-Student Affairs campus leadership, e.g. Deans and Vice Chancellors, with oversight of administrative responsibilities.

¹⁵ The School of Engineering will begin assessment planning with the arrival of its new Dean in the Fall 2010, after a year of transitioning leadership.

the cycle to be initiated in summer 2011. This is underpinned by SACA's expectation that all administrative units will have assessment plans in place by the end of the 2010-2011 fiscal year and have begun assessment by 2011-2012 [258].

What we have discovered in developing this policy is what we discovered in both academic and co-curricular assessment: performance reviews and rewards have traditionally centered on the individual; assessment focuses on the unit and its connection to the campus. It takes a shift in perspective to think of collective rather than individual performance. We are optimistic that this shift will help the campus meet its aspirations to excellence.

APPENDIX II: PROGRAM REVIEW (CFR 2.7, 4.4, 4.6, 4.7)

In its [Action Letter](#) [2, p.2-3], the Commission, following the visiting team's evaluation of our policies, directed UC Merced to implement its

strong academic program review procedures that were provisionally approved during the CPR visit. The next steps for the campus include

- 1) developing a multi-year schedule for upcoming program reviews;
- 2) implementing the new procedures, as planned, with the Applied Mathematics program;
- 3) having the results of at least one completed program review available by the time of the EER visit; and
- 4) extending systematic program review from Academic Affairs and Student Affairs to other areas of the campus, as the team report phrases it, 'viewing all units as delivering educational outcomes is encouraged.'" (CFRs 2.7, 4.4, 4.6, 4.7)

For the most part, we respond to these directives in the body of the EER report (principally in Essay III; see also Essay V, Part A and Appendix II, Part B regarding the fourth directive), but we would like to emphasize a few additional points here.

Regarding the first directive, we have developed schedules for all academic, student affairs and administrative program reviews [8].

Regarding the second and third directives, we have implemented the new procedures and are nearly finished with the review of Applied Math (see Essay III). The review is not controversial, and we expect the review to be complete by the time of the March site visit. By March we will also have in hand self studies for four additional academic programs: Physics, Environmental Engineering, Economics and the Writing Program. Student Affairs will be reviewing two units, Registrar's Office and the Office of Student Life.

Essay III describes in detail the trial run of the Academic Program review. One notable outcome of our first use of the program review policy was a major re-writing of the guidelines [148]. We saw that our adaptation of program review policies from other UC campuses gave us robust but cumbersome procedures, and the complexity of the policy statement made it difficult to find the purpose of program review. In short, our first policy statement [122] emphasized process over purpose. Our [new policy](#) [148] emphasizes the main goal of program improvement, and lists four questions toward that end. These questions enable programs better to see how to aggregate and analyze annual assessment as part of periodic review. By having purpose drive questions, we have questions drive data collection and analysis, improving efficiency, and thereby allowing us efficiently to improve. UGC also realized that its Program Review subcommittee needed to be larger than the membership of UGC could support and it needed to draw its membership from tenured faculty. UGC thus has tapped the Senate to include additional members on the Program Review subcommittee. The chair and half of the membership of this subcommittee are drawn from UGC; the remaining members are appointed by [Committee on Committees](#) [345] in such a way as to balance faculty representation from the schools. It is also worth noting that the Academic Senate has hired a new analyst whose primary duty is to support program review.

The EER essay on Program Review also discusses the first three Student Affairs Program Reviews (Essay III, Part B). As with Academic Program Review, one of the most important

outcomes was to refine the process for future reviews. And Student Affairs has hired a specialist to support annual assessment and Program Review throughout the division.

Regarding the fourth directive, we have approved a model policy for Administrative Periodic Review [8] (see also Essay V, Part A and Appendix I, Part B). In parallel to Academic Program Review, Review of Administrative units will draw on annual assessment. Administrative units are expected to have developed annual assessment plans by the end of AY 2010-2011, with most having begun this process already [344]. A schedule for periodic review of administrative units has also been developed [8].

APPENDIX III: STUDENT SUCCESS (CFR 1.5, 2.10, 2.11, 2.13, 4.3, 4.4, 4.6)

In its [Action Letter](#) [2, p.3], the WASC Commission noted:

A majority of students at UCM are first generation college goers and students from lower socio-economic backgrounds with modest SAT scores. While UC Merced students persist and achieve beyond what these factors might predict, they do lag behind other UCs. It is commendable that the campus has responded vigorously to impediments to success with mandatory advising workshops, an undergraduate writing course, and a variety of other support programs. However, as the report says, the effectiveness of these efforts "can only be sustained through continued focus and resource allocation."

It will be important for the campus to continue to address obstacles to student success. In particular, the university may want to focus on

- 1) improving student satisfaction;
- 2) maintaining and increasing the high proportion of students who participate in faculty research, even as enrollment grows;
- 3) intentionally developing the opportunities in undergraduate programs to integrate classroom learning with real-world applications;
- 4) ensuring that the campus commitment to student success is embraced across the entire campus;
- 5) developing the ability to disaggregate and analyze student data by demographic characteristics;
- 6) making systematic use of the data provided by the Office of Institutional Planning and Analysis and linking it to programmatic outcomes; and
- 7) ensuring that financial, strategic and academic planning all have student success as a priority. (CFRs 2.10, 2.11, 2.12, 2.13, 4.4, 4.6)

Regarding the first concern, about student satisfaction, we have worked hard to improve the physical environment, broaden the range of extra-curricular activities available to students, improve orientation, and stress first year engagement of students. We discuss these efforts in Essay IV.

Regarding concerns two and three, in asking us to maintain, or even increase, the high proportion of students who participate in faculty research, the Commission identifies one of the great challenges we face. As our enrollment growth outpaces the growth of our research faculty, access to research opportunities is decreasing. For example, History has removed the requirement for a [senior thesis](#) [346], and Chemistry has removed its undergraduate research requirement [347]; each program has, however, sought to provide students with substitute, though less individualized, experiences with the research process – History through a capstone seminar, Chemistry through additional lab courses.

That said, our commitment to undergraduate research remains, as we demonstrate here by calling attention to two recent developments. First, the School of Natural Sciences plans to offer a new course, NSED 198, which is designed in part to prepare students to work with faculty on faculty research. As described in the course proposal [249],

NSED 198 will enable students to have a smooth transition to the research culture of our university by identifying specific educational success tools and techniques for persistence and retention. This course is designed to:

- Offer students resources to develop a richer, more intense and challenging academic experience.
- Identify factors that enhance graduate and professional school admission and strategies to better prepare for a post- baccalaureate degree and science career.

Students will be introduced to the many aspects of the modern research university within the context of the School of Natural Sciences at University of California, Merced, so they will be prepared to initiate and engage in authentic research experiences in Applied Mathematics, Chemistry, Biological Sciences, Physics, and Earth System Sciences.

Note that the purpose is to promote retention by giving students the support they need to find and successfully participate in authentic research.

We also have a new institutional initiative, the [Chancellor's Task Force on Community Engaged Scholarship](#) (CES) [348], that supports student engagement in faculty research. While the Task Force is not specifically charged to involve students in research, it is not a coincidence that CES does, in fact, help us both to involve students in research and to develop opportunities for undergraduates "to integrate classroom learning with real-world applications." Our first [Conference](#) [349] on Community Research and Scholarship, held on November 12, 2010, presented the work of ten campus research teams, 80% of which include undergraduate students as research partners. Associate Professor Rudy Ortiz, in particular, highlighted a published peer-reviewed research paper on which one of his undergraduate students was lead author. The reason this CES initiative is so useful as a way to support faculty who work with student researchers is that community engaged scholarship almost by definition requires faculty to flatten hierarchies, create personal contacts with community members, and therefore to need more help in making connections. Undergraduates in particular are superbly suited for community outreach, and several of the research teams commented on the need for student enthusiasm and numbers in order to get their work done. In conjunction with other mechanisms to support undergraduate research - our many [internship programs](#) [350], our [undergraduate research journal](#) [351], and our annual [Research Week](#) [352] - our developing emphasis on Community Engaged Scholarship not only fits our campus vision to help address pressing needs in the San Joaquin Valley, it also encourages faculty to involve students in their research.

Regarding concern five, we disaggregate [student data by demographic characteristics](#) [353], and we document throughout the EER Report and Appendices the ways in which we use these data to inform our educational practices, not just in the curriculum, but also in Student Affairs programming and in academic support services. In particular, we call attention to Essay IV and to Part C of Appendix IV. We mention further a grant our Center for Research in Teaching Excellence received from FIPSE titled [Educating Future Faculty to Engage with a New Demographic](#) [354]. (See also [this description](#) [355] and [this site](#) [91] for links to the publications coming out of the project.)

Regarding concern six, systematic use of data about students, [Institutional Planning and Analysis](#) (IPA) [356] and [UCOP](#) [278] collect and present student data, which is tapped by diverse constituents across campus [358], and many campus bodies [357], both Senate and Administration, use the data collected about students in their decision-making processes. We present many examples in Essays III and IV, Program Review and Student Success, in the body of the EER Report and in Appendix IV. To add some details and reminders:

- Program Review depends in part on systematic collection and analysis of student demographic data. In its program review, Applied Math used disaggregated data about student majors to identify a gender imbalance as benchmarked against national norms. As a consequence, the program set the goal to increase the number of female majors:

Table 3 shows a summary of Table G of the file UCM Academic Program Review Data - Math.xlsx prepared by the Department of Institutional Planning and Analysis. These data reflect the broad diversity of the Applied Mathematical Sciences students. In particular, it is important to acknowledge that 60% of our majors at Fall Semester, 2009 are first generation college students. Moreover, as of Fall Semester, 2009, approximately 40% of our majors identify themselves as Hispanic. That the female-to-male ratio among Applied Mathematical Sciences majors is approximately 3/7 is typical nationally. However, the applied mathematics faculty would like to work actively to increase the number of female Applied Mathematical Sciences students in the future. As a result, the applied mathematics faculty will develop and implement strategies to attract more women students to the Applied Mathematical Sciences major. [68, p.19]

This is a clear example of using data to address a programmatic outcome and to set a goal to change the outcome.

- In academic planning, faculty and administration use disaggregated data to keep track of the relative success of “at-risk students” and to change programs and procedures to match:
 - As described in Appendix IV, funding requests from the Vice Chancellor for Student Affairs depend on the administration understanding the needs of such students and supporting programs that will improve the odds of success. The long list of interventions listed in Essay IV, Part E attests to the impact of using these data.
 - The School of Natural Sciences used disaggregated student demographic data [243] when developing the [Early Progress Policy](#) [242], approved in spring of 2010. Again, the emphasis is on improving student outcomes.
 - Our establishment of a minor in Chicano Studies is in part a response to faculty using disaggregated data about students to address a need. As faculty put it in their proposal (approved by UGC on April 21, 2010) [359], an important reason to establish the minor is

Student demographics. Chicano/a and Mexican American enrollment at UC Merced is the highest (percentage-wise) in the system at 33%. [At this point, the proposal footnoted “Data from UCM Institutional Planning and Analysis.”] The percentage of Chicano/a and Mexican American residents is also high in Merced as a city (48.5%), Merced County (52.4%) throughout the entire Central Valley, and in the State of California as a whole (38%). The Minor in Chicano/a Studies will be a valuable asset for UC Merced in order to fulfill its mission to serve the population of the state, and its vision to educate and train the youth of the Central Valley. Moreover, as a Hispanic Serving Institution, UC Merced will benefit from additional programs (such as this proposed minor) that directly serve this large part of its student population. [359, p.4]

Now that the minor is approved, we will be able to measure its impact on retention and on other measures of student success.

- Student Advising and the Registrar regularly use a variety of student data in tracking student progress toward degree completion (See Essay IV).
- With regular attendance by and input from the Vice Chancellor for Student Affairs, the Registrar and advisors from each school, Undergraduate Council (UGC) has readily available current data accessed by the people who use it in their daily work. Thus, UGC systematically considers these data in fulfilling its duties. Among those duties are to approve policies and revise programs in light of retention and graduation rates. UGC's response to such proposals as the request to extend mid-semester grades [27] and the School of Natural Sciences Early Progress Policy [243, 416] exemplifies its use of outcomes-based data.

Concerns four and seven on the WASC Commission's list above echo the [Visiting Team's fourth expectation](#) [3, p.47] that we "Ensure a campus-wide commitment to student success planning and co-curricular programming." This commitment is manifest most publicly in our [MOU with UCOP](#) [188, p.5], which establishes the expectation that UC Merced will continue to improve the retention and graduation rates of our predominately first generation and at-risk student population. Beyond the initiatives specifically named in the MOU, achievement of this outcome will depend in part upon the institutional infrastructure and practices we put in place to connect activities and planning processes across the campus. As described below and in the referenced EER Essays, these range from standing committees to initiatives like the First Year Experience (see Essay IV, Part E). They also include the Library's support for educational outcomes as detailed in Appendix I A ii, as well as our efforts explicitly to foster institutional learning goals across campus through the alignment of academic [36] and Student Affairs' learning outcomes and programming [38] with the Eight Guiding Principles of General Education.

Three standing committees, the Enrollment Management Council [210], the [Senate Administration Council on Assessment](#) (SACA) [257], and the [Undergraduate Council of the Academic Senate](#) [12], bring together faculty and administrative leadership in support of student success planning. For example, the newly inaugurated Enrollment Management Council is co-chaired by the Vice Chancellor for Student Affairs and the Vice Chancellor for Research and Graduate Dean and charged [210] with "coordinat[ing] major enrollment activities across academic, student affairs, and administrative units" in service of "build[ing] a student-centered research university" in ways that "maintain our diversity, increase quality and ensure that our graduate population is at the appropriate size."

Similarly, SACA will help to connect the curricular and co-curricular through its [responsibilities](#) [43] for "coordinating and overseeing institutional assessment, including curricular, co-curricular and administrative assessment" and "to ensure communication and data sharing among all groups involved". For example, in collaboration with the Director of Assessment, SACA will propose institutional assessment questions based on reviews of annual assessment reports and periodic reviews (see *Institutional Assessment Initiatives* within Essay V, Part A). At the program level, SACA is already fostering interactions that should strength co-curricular and curricular connections and collaborative planning that result from assessment of learning outcomes. Specifically, Student Affairs plans to include one or more of the School-based Assessment Specialists on its Assessment Committee to be formed in summer 2011 (see *Assessment of Student Affairs* within Essay V, Part A). Reciprocally, the Student Affairs Assessment Coordinator will be a member of the SACA Subcommittee, comprised of faculty and staff, to provide feedback on assessment practices to academic programs. Finally, working collaboratively with SACA, the Director of Assessment will use his or her "broad institutional view" and responsibilities for "disseminating [assessment] results

across the campus community” to facilitate the exchange of evidence and ideas essential to planning [44].

Collaborations and reflection that support this commitment to student success and co-curricular programming are also encouraged by both the undergraduate and Student Affairs Program Review policies. For example, the [undergraduate policy](#) [148, p.6] asks programs to reflect on the contributions co-curricular support, including advising, makes to meeting programmatic goals. In evaluating how well these goals are met, programs are asked to reflect upon disaggregated demographic and student success data provided by IPA [145]. This can lead to the kind of analysis and related goal setting exemplified by Applied Mathematics’ intentions to increase the number of female applied math majors (see above). Reciprocally, Student Affairs encourages engagement of the academic side of campus in its program review process [123, p.9], asking Directors to “consider inviting faculty or colleagues from the Schools ... to serve as an external member of the self-study review panel” while emphasizing that such collaboration is “a priority for the Advancement of the Student Affairs strategic plan and a critical element in our ability to effectively serve students.” Heeding this advice, the first three Student Affairs programs reviewed included staff from the Schools on their self-study review panels [155].

APPENDIX IV: FINANCIAL, STRATEGIC AND ACADEMIC PLANNING

A) Financial Stability (CFR 3.2, 3.5, 4.1, 4.2, 4.3, 4.5)

In response to our CPR, both the [Commission](#) [2, pp. 2, 5-4] and the [Team](#) [3, pp. 30, 46] emphasized the need for "UCOP and the campus leadership (to) develop a financial plan that will realistically align financial resources with enrollment, the educational program, and research objectives." We respond to this expectation below.

The catastrophic budgetary situation in the State has had a significant impact on the University of California and has made the process of building a new campus difficult. Nonetheless, during this trying time the UC Office of the President (UCOP) has held Merced harmless in the face of system-wide budget reductions [360] while continuing to provide needed financial and legislative assistance. Since the CPR review, UCOP has gone further. Their support has taken multiple tacks. First, the campus and UCOP have cemented an agreement in the form of a [Memorandum of Understanding \(MOU\)](#) [188] that for the first time offers the campus a rolling, three year planning horizon. This MOU commits UCOP to providing funding for enrollment growth during the 2010 to 2013 period should the State not provide support for the enrollment growth at UC Merced. This agreement focuses on tactical issues that will help UC Merced to transit through this difficult period while also providing for enrollment growth that will position the campus for future growth. Second, UCOP has worked with the Department of Finance to assert the need for continuation of the State \$5M of supplemental support that was due to expire in the 2009-2010 fiscal year. The recently passed state budget includes this \$5M [361, 415]. Third, they have mounted a strong legislative campaign to provide lease revenue funding for the next academic buildings that are critical for UC Merced to accommodate the expected faculty and student growth over the next five years. Finally, as noted in the [Visiting Team's Report](#) [3, p.30], UCOP continues to offer a line of credit pegged at \$5M per year for eight years should the campus need it at year-end close. Each of these four elements is critical to UC Merced's ability to continue to provide high quality educational experiences during its initial growth phase while also meeting its budgetary responsibilities.

MOU/Operating Budget

During the past five years there have been repeated and ongoing conversations with the Office of the President around UC Merced's operating budget issues. These deliberations culminated this year with the development of a multiyear MOU that ensures enrollment growth support for the campus during the next three academic years. Specifically, [the agreement](#) [188] provides for enrollment growth support to UC Merced that meets the Long Range Enrollment Plan [362] to add approximately 600 new students over base each year of the MOU. This path forward helps to move the campus closer to the point when it can reach fiscal stability while building essential academic and research programs. The MOU spells out the commitment on the part of each party that will allow UC Merced to continue to grow its student body during this time when other UC campuses are being asked to maintain or reduce the enrollments of resident undergraduate students and have also had their budgets significantly reduced as a result of the State's reduced higher education support.

The essential elements of [this agreement](#) [188] include the following:

- 1) During the next three years UC Merced's enrollment will be allowed to continue to grow from 3,400 to 5,200 students. The current academic year is the first year of the MOU and our [enrollment numbers](#) [363] outpaced projections as the campus grew from 3,400 students in 2009-2010 to 4,381 in the fall of 2010, an increase of almost 400 over the projection. We are confident

that we can continue to meet or exceed the enrollment projections outlined in the MOU. As a research university, the campus also needs to continue to grow its graduate student enrollment. This is especially true in the Social Sciences and Humanities where we are far behind UC benchmarks and since, as articulated in the [MOU](#) [188, p.1], SSHA will be the School with the largest faculty expansion in the coming years.

2) UCOP will provide enrollment growth support for the incremental addition of 600 students over the prior year's base. (See this year's allocation letter from UCOP [415, p.3] for additional evidence of this commitment.) These funds will come from UCOP's State operational funds if the State is unable to provide this support. More importantly, the Office of the President has committed to fully fund our student enrollment if and when the State provides the enrollment dollars needed to cover the current unfunded students throughout the UC system.

3) The campus will emphasize growth in the Social Sciences, Humanities and Management during this period to provide a more balanced educational portfolio and to better utilize available facilities on campus. With the opening of the Social Science and Management Building in the summer of 2011, SSHA related disciplines will have much needed research and laboratory space for its continued growth. We have committed to use this strategic advantage to shift the balance of faculty hires into the social sciences and management. This shift towards SSHA related areas is a strategic redirection that balances the emerging needs of the educational programs in the social sciences, humanities and management¹⁶ with the need to build a strong research base across all three schools. As noted in the CPR report, the campus has already begun to see a shift of students to social science majors and the expectation is that this trend will continue as we build faculty depth in the existing SSHA majors. Because of the relatively lower start-up costs in SSHA disciplines this will also help to keep expenditures in better alignment with revenues. The additional advantage of growing the SSHA faculty at this time revolves around the availability of additional research and office space in the form of the Social Sciences and Management Building that will come on line in the summer of 2011.

4) During the period of the MOU, UC Merced will focus resources on developing faculty depth in the existing majors, not on building new programs that will diffuse our resources. This is particularly pertinent in SSHA where there has been a recent expansion in the number of majors¹⁷ without a corresponding increase in the faculty [188]. This ramp-up in the hiring patterns in SSHA is an example of the strategic allocation of resources when an opportunity, in the form of new facilities, presents itself. UC Merced has committed to not adding costly new programs until the campus financial situation has stabilized and resources are available to broaden undergraduate and graduate program offerings.¹⁸ This pause in building new programs and the continued allocation of faculty FTE will provide the opportunity to build depth in the undergraduate majors while also allowing the expansion of graduate opportunities in the existing [interdisciplinary groups](#) [317].

6) The campus has also committed to invest in the success of our students by building both the year-over-year retention rate as well as bringing graduation rates into better alignment with our sister campuses. Given the [highly diverse](#) [165], [first generation](#) [166] nature of our students, this is a task that will require significant resources both in financial aid and in providing resources needed for academic counseling, health counseling, additional tutoring and workshops that can teach study skills that will aid at-risk students in attaining academic goals.

¹⁶ We are currently conducting two searches for faculty in Management.

¹⁷ Anthropology and Sociology were added within the last two years [264].

¹⁸ The MOU does allow us to strategically realign majors and minors if the realignments add no unplanned costs.

As a result of this signed MOU, for the first time since opening, UC Merced has a planning horizon that encompasses three years and the promise of a continuing three year rolling plan through 2015 at which point the campus should be close to financial stability [188]. In addition, the Department of Finance and the Legislature have agreed to extend the supplemental support budget of \$5M to the University's base budget [361, 415].¹⁹

Line of Credit

Even with a multi-year plan that moves us toward long-term financial viability, UC Merced, like many of the campuses that preceded it, will have an extended period of deficit spending. As was the case for the expansion campuses in the 1960s, UCOP is treating UCM as both an extension of the system and as a stand-alone campus. The bridge between the two is a line of credit, currently set at \$5M per year for eight years, should the campus need it at year-end close. For example, during the past fiscal year we used \$1.9M of the line of credit to fill a deficit in state funding of the operating budget at fiscal close [365].

Capital Budget

The Office of the President and the University Regents are working to better inform State legislators about the importance of higher education to the State and thus the importance of securing reliable and consistent State support. While this campaign serves the long-term interests of the system as a whole, UCOP has been pushing specifically for short- and middle-term support for UC Merced as a growth campus. Providing lobbying support in both the legislature and with the State's Department of Finance, UCOP has focused on working with UCM to procure essential legislative support for the capital needs of the campus. This support has resulted in the development of a possible lease revenue option for the next two academic buildings that the campus needs to meet the growing enrollments and the addition of faculty.

In regard to the critical capital budgetary issues impacting the campus, we have worked diligently with the Office of the President to elevate the visibility of our space needs for teaching and research as well as auxiliary support buildings for student housing and recreation. Although the State has declined to submit a General Obligation bond to the voters in the 2010 general election, representatives from UCOP and the campus have worked to educate the legislature about the critical importance of our next two academic buildings, Science and Engineering II and the Class and Academic Office Building. At this point we have every expectation that the State will use Lease Revenue Bonds that will allow construction of these buildings to move forward well in advance of the next General Obligation Bond offering.

¹⁹ The Department of Finance and UCOP argue that this should be a permanent increase to the base; the current budget extends the \$5M but does not promise a permanent extension.

B) Collection and Use of Data (CFR 2.12, 4.2, 4.3, 4.5)

The [Visiting Team's Report](#) [3, p. 47] asks us to “Determine and demonstrate the process by which data are disseminated and analyzed to provide for optimum access and actual use of data. Ensure that leadership team members understand how to use and request data and what the expectations are for their direction of data analysis campus-wide. Systematize the use of data and analysis to inform planning.” The [Commission](#) [2, p.2] concurs in saying “a system for use of assessment and other data at administrative unit and institutional levels should be established.”

The [Team found](#) [3, pp.23-25] “Data collection and reporting is a strength of UCM” but that “The *use* of such data by the campus is not described clearly in the CPR report, but at the time of the visit UCM provided examples of how data are used and analyzed and how some programs were modified in light of the analyses. It therefore appears that data are distributed, analyzed, and effectively used across campus and in the decision-making process at various levels, though on a somewhat ad hoc basis.”

These comments suggest something we were already learning: that we collect large amounts of data, but the collection and use are not coordinated in a way to make information optimally useful at reasonable costs in both money and time. While we were preparing for accreditation, we began to [coordinate campus surveys](#) [366] and began planning to develop technological infrastructure for data collection and dissemination in a virtual “[data warehouse](#)” [356, 367]. Our efforts to collect and use data are fairly developed, our ability to coordinate the use of data—essential in a world of data-overload—is emerging.

Given that data dissemination and use touches every facet of university operations, we find it daunting to “determine and demonstrate” data use across the board. While the administration is committing resources to data warehousing,²⁰ while we have a [Survey Coordinating Committee](#) [366], and while we have developed a [Senate-Administration Council on Assessment](#) [42] to coordinate the use of assessment data, we took the opportunity of the EER report to study three examples of decision-making in order to see what kind of data we collect, how we use it, how we might improve the use of data in these cases, and what conclusions we could draw more generally to improve the use of data across the campus. We chose to look at the use of data in academic planning in three core functions: instructional budgeting, faculty FTE allocation, and Admissions. To implement this study, the Accreditation Steering Committee crafted questions for pertinent administrators and faculty members [368]. Below, we present a composite of the responses for each of the three areas of study. Original responses, including support evidence as provided, are available for each of these three discussions - instructional budgeting [369], faculty FTE allocation [370], and admissions [371]. We learned that in these areas, we are tapping large pools of data and are using data as important inputs in our decision-making processes. We also learned that these data sets are often not mature enough to be fully effective, but that our processes for collecting, analyzing and using these data are improving.

i) Determination of Instructional Budgets

UC Merced receives its annual operating budget from UCOP. This includes the permanent base and an allocation determined by the projected student enrollment growth for the year ahead. Following the third week census of student FTE, adjustments are made to the growth allocation as needed. These funds are used to support most of the ongoing operations of the university, including

²⁰ As of the end of October, IPA has received authorization for a new analyst whose primary responsibility will be to accelerate the development of the data-warehouse.

the annual instructional budgets for each of the three Schools. Additional, one-time funds, i.e., lottery funds, are received periodically by the campus and these have also been targeted to the instructional budgets.

Prior to opening in 2005, the initial instructional budget for UC Merced was determined by the Executive Vice Chancellor, who used information from academic administrators and senior staff who had managed these types of budgets for many years at other UC campuses. The initial allocation for the instructional budget was determined by the enrollment in the first year of operation, the amount of laboratory or field experience involved, the need to hire lecturers and graduate teaching assistants. Additional funding for outfitting instructional laboratories in 2005 and 2006 came from building funds that were designated as part of the capital projects. These funds, amounting to approximately \$8M, were used to purchase equipment used in instructional laboratories and were not part of establishing the base instructional budget.

The base budget has been increased proportional to the enrollment growth in each School in each of the following years. Each School is required to present an annual request [364] along with an analysis of the previous year's allocation, the latter taking the form of a discussion with the Council of Deans. This includes analysis of the instructional needs of any new courses or majors. In preparing their requests, the School Deans also take into consideration the workload of all ladder rank and temporary faculty, enrollment in undergraduate majors as well as the enrollment in service courses offered by the School, increases in the number of graduate teaching assistants in their programs, and course fee offsets that are used for supplies in laboratory intensive courses [369]. The analyses provided by the Schools along with analysis from the EVC's senior staff and the Budget Office [369] are used by the EVC in making the final allocations. As a campus undergoing substantial year-over-year growth in enrollment, undergraduate enrollment has been the major driver of additions to the instructional base budget. The impact of freshman preparedness for college level writing and math courses also is a key component of planning the instructional budgets.

With only five years of history on which to draw, we are still at a point where the institutional trends in enrollment are not as consistent and predictable as they ultimately will be. Nonetheless, data from the Office of Institutional Planning and Analysis, the Registrar, the Graduate Division, the Assistant Vice Chancellor for Enrollment Management and the Schools are used by the Deans, the EVC and the Budget Office to determine the initial instructional allocation for each academic year [369]. These data include information on the current enrollment in majors, projected enrollment patterns of the incoming class (looking both at SIRs and at the long-term enrollment plan), information on course enrollments derived from the registrar as well as any new course offerings that require instructional support or that have a laboratory or field experience requiring specialized materials or equipment. In many of these latter cases, supplemental fees are charged and are added directly to the instructional budgets to offset these specific instructional costs.

The eventual allocation takes into account the faculty FTE available within each School, as determined by school workload policies and union agreements, and generally meets the demands of the required base courses, lab sequenced courses, and the lower division courses. In order for the allocation to be more effective, the requests provided by the Schools need more effective monitoring and management of course enrollments and better processes for determining the distribution of the resources that support faculty instruction. Specifically, in the absence of years of data in a stable enrollment environment, we have frequently failed fully to anticipate the need for enough sections and/or seats to meet demand for lower-division courses and thus must make last-minute adjustments.

During the first two years of operation, the instructional budget grew by an algorithm based primarily on the increase in the undergraduate enrollment. Typically this averaged out to approximately \$2,500 per new student over and above the previous year's instructional base. The main sources of data used in these early efforts were the total enrollment numbers in each of the Schools and the specific enrollments in each course.

Subsequently, as the campus has matured, the ability to collect and use data in decision making around budgetary issues has also matured. IPA, the registrar and the budget office [369] now provide standardized data sets to the Schools [372] and the Office of Academic Affairs [373²¹] to aid in the construction of annual incremental growth of the instructional budgets for each of the Schools. Since budget allocations now depend on balancing needs as demonstrated by several different kinds of data, budget requests from the school deans and their staffs are analyzed by the EVC, Academic Affairs, and the Budget Office. The final allocations are approved by the EVC after consultation with the budget office and the Deans.

Currently, the allocations meet the demands of the required base courses, lab sequenced courses, and the lower division courses in that the vast majority of students are able to enroll for a full course load, although some students choose to take 12 rather than 15 units [376]. In order for the allocation to be more effective, the Schools need inter-annual variability to stabilize which will enable a more predictive analysis of the data elements mentioned above. Increased effective monitoring of course enrollments and management of the courses will also help the Schools to effectively manage the instructional resources.

The deans, the budget officer, and the provost all agree that, to improve decision-making in the Schools, particularly with respect to hiring TAs, the timeline for the Instructional Budget Call, the School Response deadline, and the allocation timing must occur earlier in the Spring semester [369]. A supplemental allocation can follow later in the semester as fall enrollments and the University budget are finalized.

There are a couple of lines of feedback that are monitored to determine the sufficiency of the allocation. First, and probably most important, is the availability of sufficient classroom slots to meet the enrollment needs of the student body. Although continuing students register for the classes for the coming semester well in advance, new first year and transfer students hold their orientation and registration sessions during the summer when many courses are already impacted. The registrar and the Vice Chancellor for Student Affairs continuously monitor the availability of open course slots during the registration sessions to ensure that sufficient places are available for each student to enroll in a full course load of 12 to 16 units. A second aspect that is monitored is the availability of teaching assistant/lecturers sufficient in number to provide the needed discussion and laboratory sections in both the lower division major and general education courses.

The original base budget was created in anticipation of needs before any students enrolled. While it was based on experiences of other campuses, it could not be based on actual enrollment patterns on our campus. Now that we have several years of actual data, the Vice Provost for Planning is undertaking a complete review of the instructional budget allocations to determine if the initial base was set at the proper level to provide for the necessary level of instructional activity and if the subsequent distribution across the three Schools was adequate to meet their specific needs. This process is intended to be the initial step in creating a budget process driven by our own experiences as indicated by data we collect. Still, as our data span too few years to enable us to draw strong conclusions, we necessarily have a decision making mix based more on qualitative and

²¹ This is an Excel file. It must be opened manually from the portfolio.

intuitive readings of the data than we would like. As our data sets continue to be refined on an annual basis, we are optimistic that we will be able to provide a less subjective and more objective approach to the instructional budget growth in the coming years.

ii) Allocation of Faculty FTE

In 2002, prior to campus opening, the provost allocated 60 faculty lines; each school received an initial allocation of twenty FTE. These positions provided the campus with its founding faculty who were charged with developing the initial majors and general education program for the new campus. Subsequently, on an annual basis, each School has engaged in a planning process centered on the allocation of faculty positions needed to meet their educational and research goals. The annual planning process starts with a call letter from the provost early in the fall semester [143] and distribution of the *Guiding Criteria for Evaluating Academic Plans* from Schools and Graduate Groups [143]. The schools are provided data from the Office of Institutional Planning and Analysis on enrollment trends in the various undergraduate and graduate majors [372]. These data, coupled with the research programmatic needs and the campus mission, are used to provide guidance in the requests for the authorization of new faculty lines. The Dean has a major role in taking the requests from the disciplinary areas and melding them into a unified request, the core of each school's strategic plan, that meets the School's needs. These final prioritized lists are put to a faculty vote, which is submitted along with their planning request [374].

Clearly the budget has an enormous impact on our ability to hire additional ladder rank faculty. The cost of establishing a research university includes not only salaries and benefits, but also the initial startup cost for establishing the research program for each faculty member. The size of startup packages has been a major inhibitor in the growth of the ladder rank faculty.

Typically, the State enrollment support dollars provide the salary lines for new additions to the faculty ranks. Currently, as a result of its financial problems, the State is not providing support for enrollment growth. However, [UCOP has agreed](#) [188] to provide enrollment support last year and this will continue for the next three years. For the first time since our opening this has provided the opportunity for a multiple year planning horizon. As such, Schools have been given a target for the new lines that they can expect to receive over this period and have been asked to develop a three year rolling plan that best meets their needs [143]. Each year the faculty will be asked to reexamine the unfilled priorities and to examine these in light of updated enrollment and research trends. This provides an opportunity to recast the priorities for the coming year's allocation and once again establish priorities for the coming three years.

A variety of data are assembled to guide the allocation of the campus's most precious resources, faculty lines. These data are used in the deliberations by the Schools as well as by [Committee on Academic Planning and Resource Allocation](#) (CAPRA) [14, 143] of the faculty senate and the provost in determining the annual allocation of new lines. Critical data sets include undergraduate and graduate enrollment growth, faculty depth in both undergraduate majors and in the graduate programs, availability of adequate space to accommodate a particular faculty member, research needs to build a strong area of research distinction that complements current faculty interests and meets the goals of the academic vision. These data are garnered from the usual sources: Institutional Planning and Analysis, the Associate Vice Chancellor for Enrollment Management, Space allocation maps and data on the cost of startup packages for prospective faculty.

Shortly after opening, the campus used undergraduate enrollment trends as the principal data driving this process. As each new major was developed, there was a critical need to quickly establish a viable faculty capable of delivering the major. Last year we reached a [general consensus](#) [188] that

for the near term we will continue to further populate the existing nineteen undergraduate majors and the associated nine areas of graduate study. This will help to build faculty depth in these areas rather than continuing to broaden the available offerings. This enables faculty better to use data we have developed on campus and to balance short-term enrollment needs against long-term strategic goals.

The individual School strategic plans [374] are submitted to the Provost and CAPRA. Senate consultation provides a broader cross-school interpretation of the specific requests that puts them into the context of campus development. CAPRA looks at the broader needs of the university and makes recommendations [375] that are relayed to the Schools and the Provost for additional consideration and comment. The goal is to provide a proper balance that will allow for growth of both the educational and research missions of the campus.

Ultimately faculty lines are allocated by the Provost during the summer [377]. Faculty search committees are assembled and position descriptions are honed early in the fall and searches are carried out during the remainder of the academic year.

Two final notes about FTE allocation: First, space has been and will continue to be a major determinant for the types of faculty that we can attract to UC Merced. The paucity of wet and dry research laboratory space has become a major consideration in developing position descriptions for new faculty. The initial cohort of science and engineering faculty were largely experimentalists with heavy research laboratory needs. In the most recent years the faculty have had to reconsider their faculty needs and to consider the value of hiring a preponderance of non-experimentalist faculty who are less reliant on the availability of abundant space.

Second, our analysis of student/faculty ratios suggests that allocation of new faculty lines has consistently fallen short of the needs defined by all three Schools (See part C below). [Although as discussed by the Visiting Team](#) [3, p.15], the total student to faculty ratio falls well within levels of our sister campuses, the relative proportion of ladder rank faculty is considerably lower than the other campuses; in essence we rely on temporary instructional staff for a larger proportion of our undergraduate instruction, especially at the lower division level. This problem cuts across all three Schools and is a manifestation of the overall budgetary problems that the campus has faced since opening as well as a relatively significant orientation towards higher cost science and engineering majors where both the cost of instruction and the price tag for faculty is substantially greater than in the social sciences and humanities.

These two constraints are reshaping our hiring plans to some degree. Our next fifty hires will not be evenly split between the three schools, but will instead shift the balance toward the less resource-intensive SSHA programs. This is in accordance with both the [MOU](#) [188] and the [WASC Visiting Team recommendations](#) [3, p.16]. Our FTE planning over the past year included discussions of how to ensure that we are still able to pursue our institutional mission even as we shift our hiring patterns.

iii) Admissions

Admissions at UC Merced, as with all UC campuses, is a data-driven process. Annual Enrollment targets as established in the Long Range Enrollment Plan [362] are verified and the admission unit develops a plan to recruit, assess, select and yield the new class. Annual enrollment targets are established in consultation with the Office of the President. The process is coordinated by the Assistant Vice Chancellor of Enrollment Management in line with overall campus [goals](#) [188, 362].

The Office of Admissions provides multiple functions, including the primary areas of recruitment, application processing, evaluation, selection, assignment of transfer credit and articulation. However, a major function is that of admission.

For recruitment, the campus employs a comprehensive strategy [378] including targeted communications [379], and five outreach staff members structured in a regional model who visit high schools throughout the state. Recruitment begins with names we purchase, primarily from the College Board. We send these students a series of communications [380], including an invitation to view our [website](#) [381] and admissions [calendar](#) [382], so they can learn about our campus and plan to meet our representatives in the field during school visits or at college fairs.

For the year 2010-11, we will be making over 900 visits to high schools, community colleges, and statewide college recruitment events. We keep track of how many students from each high school apply, are admitted, confirm their intent to register (i.e. SIR), and subsequently enroll after our visits, and use that data to plan each year's visits [378, 383]. On the basis of past years' data, each year, in collaboration with the regional representatives, we estimate how many students we will ultimately enroll by region to meet our target [383]. If students from a particular high school are "SIRing" but are not enrolling, we visit the school to see if we can improve our yield. If our efforts yield few matriculates, we consider other schools. In planning our visits, we consider schools that have been receptive or have demonstrated interest. As a public service to a given region, and as resources allow, we also visit some schools that have not necessarily produced good outcomes. Ultimately, though, if we do not get applicants and do not get support from a school we move on.

The work of admission and selection within the Admissions Office is guided by the UC Eligibility policy established by the UC Board of Regents. The eligibility policy requires students to follow a prescribed pattern of courses in high school ([the A-G pattern](#) [384]), and to take either the SAT Reasoning Examination or ACT with Writing Examination, and Two SAT Subject Tests ([the examination requirement](#) [385]). Students are determined to be eligible in one of three ways: [eligibility in a statewide context](#) (based on a combination of test scores and high school GPA) [386], [eligibility in a local context](#) (the top 4% of UC-eligible students in a high school) [387], and [admission by examination alone](#) [388]. Students apply to UC Merced via a systemwide central application process. Up to this time, UC Merced has admitted all students who are UC eligible. Therefore, to date, much of the work of the Admissions Office involves confirming eligibility. In addition, under the [Admission by Exception Policy](#) [389], UC Merced does admit a limited number of students who may not fully meet the eligibility index but who do meet criteria that the campus faculty members have determined demonstrate a potential to succeed. The review takes into consideration the full range of a student's achievements in the context of opportunity, using criteria established by the UC Board of Regents [Policy on Comprehensive Review](#) [390]. In this sense, the work of admissions within the selection process is nearly entirely data-driven. The data used for this process is derived from the student's application, with additional data on the school context – including the student's position among classmates applying to UC as well as objective measures of school context – that are provided by the UC Office of the President in the form of a "read sheet" [391]. We will be using this tool for the first time this coming year.

The *Student Success Essay* (Essay IV) has detailed the ways in which we work with students from the time of admission to encourage enrollment. This "anti-melt" campaign [221] uses our Students First Center to link all the services for potential first year students, and provides them with regular updates and contact. This process has been important in reaching our enrollment targets. In 2010, we were faced for the first time with a potential over-enrollment; the campus is therefore preparing to become more selective.

We will need to develop policies for selection not just because of the growth trajectory of the campus, but because of changes in the UC Admissions policy. In the admission cycle for fall 2012, UC will introduce new [eligibility standards](#) [205] which simultaneously increase the number of students qualified to be considered for admission, while reducing the number guaranteed admission. UC Merced will therefore need to select the students most likely to succeed from a larger pool of eligible students. In anticipation of this change, the Admissions Sub-Committee of the Undergraduate Council has begun to examine ways of refining our selection criteria [392]. As discussed in the Essay IV: *Student Success*, there are no immediately obvious predictors – high school grades, SAT/ACT scores – which will help us determine which students will succeed. As a key principle of [Comprehensive Review](#) [390] is that academic achievement should be viewed in the context of opportunity, we will work with IPA to further disaggregate the data, for example by high school context, for potential indicators of future success. We will also examine whether there *are* predictors for success in UC Merced’s Schools of Natural Science and Engineering, each of which has lower persistence rates than targeted. In addition, we will work with the school Curriculum Committees to draft language for our website relating to the high school preparation especially important for students in Engineering and Natural Sciences. Finally, the campus currently admits freshmen to the majors they request; the committee is considering recommending either the development of pre-majors in some fields, or an admissions process where students could be admitted to a major, a school, or the university as an undeclared student: such a process would give students a more realistic understanding of their potential areas of study. Our goal is to have a framework for this process by February 2011, and to make any needed changes in time for the fall 2011 academic year and admissions cycle.

C) Analysis and Use of Student/Faculty Ratios (CFR 2.1, 3.2, 3.3, 4.3, 4.5)

In section 2.1 of the [Visiting Team Report](#) [3, p.15], the Team writes

Campus-wide, sufficient faculty are available to staff these programs, as indicated by the extraordinarily low (for the UC system) student-to-faculty ratio reported in the UCM CPR report (15:1). Other UC campuses range from 15:1 (UCB) to 19:1 (UCD, UCI, UCSD, UCSC) (UCM 08/09 Common Data Set). In Fall 2008, however, almost half of the instructional faculty reported were lecturers. The student to ladder rank faculty ratio was about 22.6:1 (i.e., 2,534/112). This ratio is still sufficient in terms of campus-wide resources.

Sufficiency is harder to determine at the program-level. Enrollment is unevenly distributed across campus by major/program. The team was unable to determine the breakdown of faculty numbers by school/major/program. Thus, it was difficult to determine whether faculty assignments were distributed equitably across the disciplines. If not, substantial variation in student to faculty ratios might occur in some fields.

The determination of appropriate numbers of faculty for any given program is obviously an important planning tool for the campus. With potential realignment of goals to grow specific programs in order to accelerate/ensure enrollment, the campus will need to have specific planning projections for faculty hiring by discipline. This capacity might be an area worthy of increased attention by the next visit.

This leads to [recommendation 2](#) [3, p.47]:

Analyze the student/faculty ratio by departments and programs, disaggregated by tenure/tenure-track vs. other faculty, and describe how planning processes will be informed through this analysis.

We supply traditional FTE charts for both faculty and students, by school, program, and by whether faculty belong to the Senate or not [393].²² Senate faculty are predominantly ladder-rank, although the UC system has the positions of Lecturer with Security of Employment (LSOE) and Senior Lecturer with Security of Employment, which are Senate positions that are primarily teaching positions.²³

These FTE charts [393] give thumbnail pictures of how our workload is distributed. Frequently, however, these thumbnails distort, suggesting, for example, that in SSHA in the fall of 2010, the World Cultures and History (WCH) major had one undergraduate served by six Senate and 6.4 non-Senate FTE, giving a 0.1:1 student to faculty ratio. The year before, the same major listed 5 Senate and 42.5 non-Senate FTE and 3 student FTE. Clearly the data are suspect, and one

²² We provide charts for fall 2009 and fall 2010, with a “snapshot” census taken the first week in November to give FTE.

²³ These are roughly parallel to ladder-rank positions; appointments usually begin as Lecturer with Potential Security of Employment (LPSOE) or Senior Lecturer with Potential Security of Employment, and earn the equivalent of tenure after a long probationary period and rigorous review against standards enumerated in the systemwide Academic Personnel Manual. Like ladder-rank positions, SOE positions require dedicated FTE and are thus allocated through the regular planning processes.

sees why when one follows the footnotes to see that WCH was one of our nine original embryo majors, and now that its stem cells have developed into two majors, it is no longer taking in new students. Yet so far, the split shows up as just two functioning organs, in the History major and in the Literature & Cultures major. The embryo still marks the place for a number of faculty- in Philosophy, Art, Music, and Foreign Languages - whose differentiation has not yet culminated in majors and so are not anatomized in FTE by program. Additionally, in 2009, all of the Merritt Writing Program Lecturers were in the WCH category; in 2010, they were moved to Literature and Cultures, creating a new anomaly: 7²⁴ ladder-rank and 48 lecturers serving 100 majors [393]. This set of numbers, too, will raise a reader's eyebrow, until the associated footnote allays suspicion through the notice that all of the Unit-18 non-Senate lecturers in the Merritt Writing Program are listed with the Literature faculty. The Student to Senate ratio of 14.3:1 is closer to the truth, though currently a recent PhD graduate is teaching one course, so his fraction of an FTE is not disaggregated. In a dynamic environment in which new programs have been arising quickly out of a small number of original majors, it is difficult to interpret, and even more difficult to track changes in, faculty workload by reviewing FTE by program.²⁵ We anticipate a slower introduction of new majors over the next few years, and our Academic Personnel Office is working to create categories that will better reveal faculty workload by FTE. For example, the Personnel Office has recently created a separate category for the Merritt Writing Program, so that next year's FTE chart will eliminate at least one distortion.

Because student/faculty ratios by FTE have been too dynamic and too irregular to give much useful information, we have not made much use of traditional FTE counts in our regular planning process. We rely instead on a rich description of faculty workload parsed by our own programs measured against student credit hours [373]. We make this information available to schools, and it is widely distributed to faculty, both through schools and through Senate committees, most importantly through the Committee on Academic Planning and Resource Allocation (CAPRA). IPA delivers to each school a relevant faculty workload summary [372] and to CAPRA a campus-wide faculty workload summary [394], which breaks faculty work out by program, discriminating between Senate and Non-Senate faculty, and disaggregating faculty work by credits offered per course, course sections offered, students enrolled, and student credit hours. Additionally, the summary [394] compares the *percentage* of credit hours delivered by Senate and Non-Senate faculty. This approach gives us three disaggregated direct measures of faculty workload, whereas FTE gives us an indirect measure in its aggregated calculation of equivalence (aggregations that use different formulae to calculate graduate and undergraduate Equivalents). Moreover, the student credit hour data we use do not rely on majors or minors in a program as a measure of workload, a measure notorious for undercounting the work performed by faculty in departments, such as mathematics or physics, that usually have few majors but heavy service burdens. To take Physics as an example, the Fall 2010 FTE breakdown [393] gives a Major Student/Senate Faculty ratio of 5.1:1 and a Student to All Faculty ratio of 3:1. By contrast, using data for the most recent completed academic year (2009-2010), the Faculty Workload Summary [394] shows Physics delivering 3,841 credit hours to 973 students. At 15 credit hours per FTE, this gives a student FTE of 256, a number nearly 700% greater than the 2009-2010 official student FTE of 37 for the major [393]. Similarly, an all faculty FTE of 9.5 in 2009-2010 [393] produces a Student to All Faculty ratio of about 27:1 rather than 4:1 as calculated for the major [393]. Without question, the student

²⁴ Includes one LSOE who is primarily in Spanish language.

²⁵ It is the UC Merced equivalent to national analysis of instruction-by-program using IPEDS categories: the categories have been fixed for a relatively long time and therefore do not adequately reflect the dynamic nature of the academic enterprise.

faculty ratios are still more than adequate to deliver instruction, but numbers that discount faculty work by such a high percentage are not particularly useful when planning new hires.

Using the 2009-2010 faculty workload summary [394], we can see that 59% of all student credit hours were delivered by non-Senate faculty. This gross tabulation does not disaggregate non-Senate delivery by Unit-18 lecturer, teaching assistant, adjunct, visiting faculty, or administrator as do two other worksheets we include here: “Faculty teaching [by] school [and] subject” [395], and “Other [faculty] teaching [by] school [and] subject” [396]. These reveal that some of our offerings, especially in languages [396], are taught by TAs as instructors of record. In a few cases, advanced doctoral students within a semester or a year of completion will be instructor of record for an undergraduate class. In all of the cases in which the non-Senate instructors are teaching assistants, their teaching is a normal part of their education as future faculty members. Some of our courses are taught by non-Senate adjunct [397] and visiting faculty [398]. In American higher education, of course, scholars in such roles traditionally enrich offerings²⁶ or temporarily fill in for faculty on leave. And having non-Senate administrators [399] teach on occasion is an excellent way to connect administrators to the core commitment of instruction. Still, all of these categories together supply just 3.7% of student credit hours, leaving unit-18 lecturers to supply 55% of total student credit hours. Analysis of the courses offered by these non-Senate faculty [400] shows that UC Merced relies heavily on Unit-18 lecturers to deliver required lower-division courses that are at the heart of our general education program (CORE 1), and that are foundational pre-requisites for many of our majors (writing and math courses).

Generally speaking, several factors have contributed to our high reliance on non-ladder faculty to teach undergraduate courses. Above all, the economic crisis has forced us to hire fewer ladder faculty than originally anticipated, with the concomitant effect of slowing development of graduate programs. At other UCs, graduate students comprise about 20% of total enrollment; at our campus, just 6% of overall enrollment is in graduate programs [363]. This slow growth of graduate programs affects our hiring decisions since, in many disciplines, graduate students could potentially serve as teaching assistants (TAs) who support undergraduate instruction. Thus, one effect of the economic downturn has been our reliance on lecturers to staff discussion sections that would otherwise have been staffed by TAs.

As just one example of this effect, all sections of our signature general education course, Core 1, are staffed by lecturers in the Writing Program [396]. In Fall 2010, 6 lecturer FTE were assigned to 30 sections of Core 1, and another 15 lecturer FTE have been assigned to 50 sections of Core 1 in Spring 2011, representing more than 40% of the staffing in the Writing Program. As originally planned, these Core 1 discussion sections would have been staffed by TAs.²⁷

On a program-by-program basis [394], we do see, as the Visiting Team was concerned that we might see, that some programs rely more on lecturers than do others, and that the total teaching load on the faculty in some programs is heavier than in others. The following analysis is subject to important caveats, however. These data list program by the Registrar’s course identifying prefixes,

²⁶ The visiting team for the Applied Math Program Review, for example, proposed that AMS develop a regular visiting professorship in order to expand upper-division offerings for Applied Math majors.

²⁷ It should be emphasized, however, that relying on lecturers to staff Core 1 discussion sections does not have a negative impact on student learning, especially for our large cohort of academically “at-risk” freshmen. Unlike TAs, most of whom are relatively inexperienced instructors, the lecturers assigned to Core 1 average 10 years of teaching experience, and they have a full-time responsibility for teaching that is not divided among other responsibilities that a TA must address when pursuing an advanced degree.

such as BIOE for biological engineering, or LIT for Literatures and Cultures, or QSB for Quantitative and Systems biology. They do not show whether a student is taking any given course to satisfy major requirements, so these numbers cannot help us determine staffing strictly within majors. Traditional FTE numbers [393] help in that regard, yet the focus at UCM on interdisciplinary studies means that most programs (or graduate emphasis areas) have interdisciplinary components built in, and these components vary tremendously, with some programs (e.g. psychology) requiring little work outside of the programmatic offerings, others (such as Applied Mathematics and, especially, Management) requiring a significant percentage. Thus, neither student credit hours nor FTE, alone gives anything better than a crude approximation of whether or not staffing in a program is in the “Goldilocks zone.” Moreover, [graduate programs](#) [317] are more interdisciplinary than are undergraduate programs, and in most cases do not align with undergraduate programs. Faculty also are free to belong to multiple graduate groups. So faculty workload rarely aligns neatly with faculty members’ “home” undergraduate programs. While these trends are, perhaps, more visible at UCM, they are true across many research universities, with the split between undergraduate and graduate affiliations common in the UC system. So while these data have to be taken with a grain of salt, and while they do not neatly compare with FTE data from other universities, they provide useful approximations.

Engineering as a school [394] has the lowest percentage of student credit hours delivered by non-Senate faculty, at 40%. Indeed, six of ten engineering programs approach or reach complete instructional delivery by Senate faculty, and of these six, two are undergraduate programs, Bioengineering (BIOE) and Materials Science and Engineering (MSE). (Across Schools, graduate programs deliver 99-100% of Student Credit Hours by Senate faculty [394].) But the outlier in the group is Computer Science and Engineering (CSE), which delivers just about one in five credit hours by Senate faculty. The program in 2009-10 delivered 24 courses to 995 students for 2,792 credit hours. This is the second largest total in Engineering, roughly 80% of the total generated by the general engineering courses (ENGR) that form the foundational courses for all of the undergraduate engineering programs. CSE’s fall 2009 number of majors is the second largest in Engineering, at 162 FTE, closely behind Mechanical Engineering at 173, and far ahead of the next largest, bioengineering, at 107 [393]. Mechanical Engineering, however, generated just 465 credit hours compared to 2,792 for Computer Science [394]. Using a 15 hours to 1 FTE ratio, CSE has a student FTE load of 186, 13% above its number of majors. Six ladder-rank faculty [393] are primarily associated with CSE, giving a total student to Senate faculty ratio of 31:1, and an undergraduate-major-students to Senate faculty ratio of 27:1 [393]. CSE uses three unit-18 lecturers [401].²⁸ Thus, given a total headcount of nine, the comparable ratios are 21:1 and 18:1 respectively. The crucial distinction within the School of Engineering, then, is that CSE provides services for many other campus constituencies, and does so by delivering service courses with non-Senate faculty. CSE and the School of Engineering have used these data to make two hiring decisions. Last year, in order to bolster the teaching ranks while maintaining Senate oversight of teaching, CSE searched for a Lecturer with Potential Security of Employment (LPSOE), a position that includes membership in the Academic Senate. As of late November 2010, CSE is negotiating a contract for this lecturer. Second, CES is currently searching for a tenured professor to provide leadership for the entire group.

This pattern of staffing service courses with unit-18 lecturers holds, too, in both the schools of Natural Sciences and Social Sciences, Humanities, and Arts. Natural Sciences (NS), while

²⁸ In this case, FTE [393] underestimates lecture contribution to workload due to issues associated with assignment to home program.

showing a slightly better balance between Senate/non-Senate generated student credit hours than the campus mean, still delivers a majority of credit hours by unit-18 lecturers [394]. The extreme case in NS is in Mathematics, which delivers more credit hours than any other program on campus and delivers only 25% by ladder faculty. In part on the basis of this heavy load and the logistical burden that attends the need to provide such service courses to the campus, mathematics has made an [LPSOE appointment](#) [131], which will help secure effective Senate oversight of mathematics education while supporting the ladder-faculty's research profile. Similarly, Physics, which has a heavy service-course load, has a 27% to 73% Senate to non-Senate workload split [394], and is also hiring a Lecturer PSOE [120] to bolster Senate oversight of lower-division teaching. The NS Senate to non-Senate ratio is slightly better than the campus averages in part because it has focused on a [small number of programs](#) [402] with faculty linked among them by interdisciplinary work. So while it is more difficult in NS than in SSHA or the School of Engineering to articulate programmatic student to faculty ratios (again explaining why we prefer to use credit hours over FTE in our planning), we see that in Biology, the campus' third largest program by student credit hours, 62% of credit hours are delivered by ladder-rank Senate faculty [394].

Among the three schools in which ladder-rank faculty have their home appointments, SSHA has the worst imbalance between Senate and non-Senate delivery of student credit hours [394]. The numbers here, as in NS, are skewed by two major service-course components, the delivery of foundational writing courses and the delivery of CORE (all of CORE 1 and most CORE 100 equivalent sections [290]). Writing provides the fourth highest number of credit hours campus wide, but it is staffed entirely by non-Senate lecturers [403]. The same faculty delivers CORE [400]; thus, the Merritt Writing Faculty delivers more student credit hours than any other faculty group. Currently, SSHA has no plans to address this imbalance; indeed, using an adjunct, part-time, or other non-Senate faculty to teach writing is becoming the norm in American higher education. On the other hand, Psychology, too, provides a majority of its credit hours by non-Senate faculty [394] (a fact that is obscured in the 2009 FTE ratio chart [393]), and it generates the second-highest number of student credit hours on campus.²⁹ Responding to this imbalance, SSHA has recently favored Psychology in allocating FTE [406]. It is worth noting, in examining the SSHA ratios, that SSHA delivers 50% of the total student credit hours [394], but currently accounts for about [39% of Senate faculty](#) [61]. Thus, the [MOU](#) [188] we have developed with UCOP, following the visiting team's recommendations after the CPR visit, explicitly shifts FTE allocation for the next three years toward SSHA, with 21 of 45 lines going to SSHA. The provost is reserving five of the planned 50 lines to be able to take advantage of strategic opportunities as they arise, and SSHA will be able—perhaps better able given the space constraints facing NS and the School of Engineering—to access those as well.

SSHA also houses the Management major, which, looking at the FTE charts [393], has a 159.2:1 ratio in 2009 and a 79:1 ratio in 2010, with no Senate faculty housed in the program. But like many interdisciplinary majors in higher education, Management draws on faculty from different home departments [418]. The major role Economics faculty play in the Management major must be noted, with the [major](#) [407] requiring five out of fourteen courses in Economics, with the workload credit given to the Economics faculty, even when the courses have a cross-listed Management

²⁹ Psychology is an impacted major throughout higher education, but how that translates to programmatic FTE is difficult to determine. We have been able to discover programmatic FTE ratios for Psychology at only one of our sister campuses. At UCSB the total weighted student/faculty ratio, including non-Senate faculty, in AY 2008-2009 was [43.89:1](#) [404] whereas our FTE for November 2009, excluding the non-Senate faculty in the program for that year, was 54.1:1. [UCEP's recent report on impacted majors gives](#) [405] the systemwide Senate's suggestions for how to manage impaction.

number. The Economics program had 5.5 Senate FTE and 0.9 non-Senate FTE serving just 51 majors in 2009 [393]. Economics appears as to be nearly as much an outlier as Management, though in the opposite direction. Measured by credit hours generated, however, Economics has 139 student FTE, for a ratio of 25.3:1 [394]. Thus, the symbiosis between Economics and Management brings both back toward the campus average in student/faculty ratio. Management also draws on courses in Cognitive Science, Psychology, Math and Computer Science. Of this list, only Psychology is impacted when looking at the traditional FTE ratios. None of this analysis obviates the fact that Management is understaffed. It generates 2488 undergraduate student credit hours on its own [394], which equals 165 student FTE, and while the number of lecturers in the official FTE count [393] is low because two of six (by headcount, not FTE) management lecturers are housed in other programs, its student/faculty ratio is too high. Management needs dedicated faculty. The administration has authorized three searches, each at a senior level, to be conducted during AY 2010-11. The successful candidates will start in Fall 2011. Two of these will be in SSHA (financial management and marketing), and the third will be in the School of Engineering (management and technology, broadly defined) [377]. The administration intends to authorize two more searches for management faculty in AY 2011-12. Thus, by Fall 2012, we hope to have five full-time faculty in the management program. We anticipate continuing to use lecturers at an as-yet undetermined level.

Finally, in College One (“CORE”), to which all Senate faculty belong but which serves entirely as an undergraduate college for the delivery of the campus component of general education, 99% of credit hours are delivered by non-Senate faculty [394]. This imbalance is one of the considerations that the new General Education Sub-Committee of the Senate’s Undergraduate Council is using in its proposals for providing a scalable, sustainable incarnation of the CORE 100 course [290]. The idea is to develop workload credits and a functional balance between disciplinary and interdisciplinary expectations to encourage Senate faculty to participate broadly in the delivery of CORE 100.

In short, the administration and faculty are aware that the balance between Senate and non-Senate faculty in the delivery of undergraduate courses is far from optimum. This is not to detract in any way from Unit-18 lecturers. The minimum qualification for such a position at UCM is a Master’s degree, but many such positions require, and most are filled by people who hold, terminal degrees. For instance, in the Merritt Writing Program, 66% of the lecturers have PhD’s, 20% have terminal Master’s degrees (MFA most commonly), and the remaining 14% have MAs, usually in either composition or English as a Second Language. Not only are their credentials excellent, these lecturers are excellent teachers, devoted to their craft and evaluated exclusively on their effectiveness [408]. Regardless of the way they are evaluated, many are publishing, either as creative writers or as scholars.

In all of our programs, our Unit-18 lecturers provide us a teaching faculty of which we are rightly proud. The problems that arise from relying on Unit-18 lecturers have to do with their inability fully to participate in the governance of the university. Technically, the Senate faculty is responsible for curriculum, but when a large percentage of instruction is out of Senate hands and when, because the service load for the Senate faculty is so high, Senate oversight is in practice weak, the academic community is fractured. Furthermore, many Unit-18 lecturers seek permanent faculty positions elsewhere, creating a sense (and when they are successful, a reality) of transience. Such a sense is good neither for the instructors nor their students. The imbalance we have is thus cause for concern not because our lecturers are not good enough, but rather because their status prevents us from integrating them fully into the academic community. This is not merely a problem at UC Merced; the use of part-time and contingent faculty is a major issue in American higher education. The University of California Faculty Senate recently convened a [task-force](#) [409] to look into Senate

membership in the UC System, and their recommendations, if implemented, may change the ways in which all UC campuses categorize lecturers.

To summarize, because traditional FTE ratios do not work well in evaluating faculty who are hired to do interdisciplinary work, we have been using Student Credit Hours as a better way to understand the needs. Because lecturers teach heavier loads than ladder-faculty teach, credit hours do not hide the imbalance in the way that headcount ratios can. Thus, our deliberations about FTE allocation and instructional budget are, we believe, more transparent and more effective in showing the real impact of our hiring and therefore in guiding future hiring decisions. Of course, these numbers are only part of the picture; we need to maintain our research trajectory by building viable programs in the Schools of Engineering, Natural Sciences, and Social Sciences, Humanities and Arts. The [MOU](#) [188] with UCOP reflects the strategic need to continue to build all three schools at a pace that will make each viable and actions are being taken to reach these goals [377, 143]. Nonetheless, the planned long-term shift toward hiring in SSHA stems significantly from our analysis of student to faculty ratios as revealed in our regular use of student credit hours as measures of faculty workload.

APPENDIX V: PROGRESS ON UC MERCED ACTION ITEMS FROM THE 2009 CAPACITY AND PREPARATORY REPORT³⁰

- 1) **GE:** *By Fall 2010 and pending recommendations of the GE Ad-Hoc Committee, revise Core 100 or identify some other form of general education.* (CFR 2.2a)

In Spring 2010, the Undergraduate Council (UGC) of the Academic Senate established the General Education Subcommittee, a standing subcommittee with responsibility [288] for “determin[ing] strategies and best practices for program [General Education] delivery.” The committee’s first task was to develop a strategy to resolve the Core 100 challenge. As detailed in its Fall 2010 report to the WASC Steering Committee [290], the subcommittee has outlined a strategy for reaching a solution, including a milestone-based timeline for its implementation. The overarching goal is to preserve Core 100’s alignment with the Guiding Principles of General Education, including its particular focus on interdisciplinary work, writing and quantitative analysis, group work, real world problems of interest to our students, and an integrative project that involves research.

- 2) **Teaching Evaluations:** *By Fall 2010, establish a uniform set of questions about teaching and learning that will appear in all student course evaluations. Also, establish university assessment procedures that ensure that students evaluate learning outcomes as part of course evaluations.* (CFR 2.4, 2.10, 3.3, 4.4, 4.6)

To meet these objectives, the Academic Senate established an Ad Hoc Committee on Course Evaluations in January 2010 [410]. In collaboration with the Curriculum Committees of the three Schools [411,412], and through review of course evaluation practices of other institutions, the committee established a set of 14 questions that will be used in student course evaluations for every course across the campus [412, p.2]. The committee also developed a standard set of eight questions, with option for 10, that will enable student evaluation of learning outcomes as a part of course evaluations [412, p.5]. These questions will support course, program, and institutional level assessment of educational outcomes as they are directly aligned with the Eight Guiding Principles of General Education [411, p.6]. The new course evaluation questions will be put into use campus-wide in the spring of 2011 [412].

- 3) **Student Success:** *By Fall 2010, every lower division course with a failure rate of 25% or greater will have the opportunity to embed a program of co-curricular support including peer tutoring, peer mentoring and supplemental instruction. Be sure staff advisors are counseling students on options for alternative majors. Continue to closely monitor three areas of high impact on student retention: first year programs, academic advising, and learning support (based on Appendix B: Student Success Essay of CPR Report).* (CFR 2.10, 2.11, 2.13, 4.6).

Targeted academic support is available for freshmen in courses that traditionally have a high failure rate of 25% or more of those enrolled. Early identification of academic difficulty is keyed to mid-semester grades reported for all freshmen. In Fall 2010 the following lower-division courses had 25% or more of their students failing (D+ or lower) at mid-semester.

³⁰ Pp. 34-36. [4]

| Course | No. of students with D+ or lower/course enrollment | Percentage of Students |
|------------------------------------|---|-------------------------------|
| Anthropology 005 | 81/114 | 71% |
| Biology 001 | 92/237 | 39% |
| Chemistry 001 | 161/265 | 61% |
| Cognitive Sciences 001 | 98/287 | 34% |
| Computer Science & Engineering 005 | 66/266 | 25% |
| Economics 001 | 144/277 | 52% |
| Sociology | 79/266 | 30% |

Students failing these courses (and others) are required to participate in [Student Success Workshops](#) [413]. Each workshop begins with students completing self-assessments where they check off which forms of co-curricular support they are utilizing on campus, bringing to light those that they still may need to explore. Students conclude the sessions by drafting individual success plans for their academic progress that optionally include utilization of resources on campus that help them develop their learning strategies and self-management in general. It is important to note that MATH 005, which formerly had a high failure rate [244], is no longer among those courses that fail 25% or more of their students. This improvement can be attributed to MATH 005 students participating in a piloted supplemental instruction program with additional support provided as peer tutoring (see Essay IV, Part E). Additionally, in fall 2010, over 25% of all freshmen are working with a peer mentor, and a similar percentage has met at least once with a peer tutor.

A review of the past four fall semesters shows that students who attend mid-semester workshops due to failing grades have finished the term out of danger of academic dismissal at a rate of 52% - 58%, which is significant when taking into consideration that 100% of them had been facing this risk eight weeks earlier.

Finally, academic advisors in the academic units take into consideration the realities that early in the college career students often choose pathways that are not optimal for their talents and inclinations. Failures in the preparatory courses for the sciences and engineering with high rates of unsatisfactory performance, for example, lead the advisors to recommend a movement to undeclared as an alternative to academic dismissal (see Essay IV, Part E). The academic advisors for the undeclared students create learning contracts that emphasize development of learning strategies and general survival skills in college, as well as exploration of different academic disciplines. This planned transition to alternative degree pathways will, we anticipate, have a positive impact on retention.

4) Engage Lecturers: *By Fall 2010, provide notices to all lecturers about program assessment and review procedures. (CFR 3.2)*

Lecturers in all Schools have received notification of, and been invited to participate in, program assessment efforts [414]. Lecturers will become aware of program review procedures through implementation of the newly revised undergraduate [Program Review Policy](#) [148]

beginning in AY 2010-2011, which expects the external Review Team to meet with the program's lecturers as part of the site visit.

- 5) **Enrollment Management Council:** *Annually, a newly formed Enrollment Management Council will address matters of enrollment, retention and graduation targets as part of budget and space planning.* (CFR 2.10, 4.2)

Established in August 2010, the Enrollment Management Council is charged [210] with advising the Executive Vice Chancellor and Provost regarding management of undergraduate and graduate enrollment. It began meeting in fall 2010 [211].

- 6) **Centralized Assessment:** *In Fall 2009, the University will have established an oversight committee for institutional assessment. Working with constituents throughout the university, that committee will have devised and implemented an institutional system of assessment that integrates curricular and co-curricular functions.* (CFR 4.4, 4.6)

The [Senate-Administrative Council on Assessment](#) [42] was established in late [January 2010](#) [43] and has met regularly since February 2010. For a description of the work planned and already completed with respect to establishing an institutional system of assessment that integrates curricular and co-curricular functions, please see Essay V, Part A.

- 7) **Workload:** *Over the next five years, UC Merced will stabilize in its routine operations, particularly when delayed funding for administrative support personnel become available and can match the previously accelerated pace of faculty hires during the early years of campus development.* (CFR 3.1, 4.2)

The [Memorandum of Understanding](#) [188] between UC Merced and the UC Office of the President articulates plans for addressing UC Merced's faculty and staffing needs over the next three to five years. For further discussion, please see Appendix IV, Part A.

APPENDIX VI: UC MERCED EER REPORT BY WASC CFR MATRIX

Alignment of the EER Report Essays and Appendices with the WASC Criteria for Review. Letters correspond to subsections of the relevant Essay. Appendices are identified by Appendix number (ex. I, II, etc.) and subsection (ex. A, B, etc.). All alignments represented here are provided in the documents as well.

| EER Report Element | | | | | | | |
|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------|------------------------------|--|
| Essay I: Introduction ¹ | Essay II: Educational Effectiveness Analysis ¹ | Essay III: Program Review Analysis | Essay IV: Student Success ¹ | Essay V: Conclusions ¹ | Appendices I-V ² | Addressed in CPR Report only | |

STANDARD ONE: Defining Institutional Purposes and Ensuring Educational Objectives

Institutional Purposes

| | | | | | | | |
|-----|--|-------|-------|---|---|-----|-----|
| 1.1 | The institution's formally approved statements of purpose and operational practices are appropriate for an institute of higher education and clearly define its essential values and character. Guideline: The institution has a published mission statement that clearly describes its purposes. The institution's purposes fall within recognized academic areas and/or disciplines, or are subject to peer review within the framework of generally recognized academic disciplines or areas of practice. | A | | | | B | |
| 1.2 | Educational objectives are clearly recognized throughout the institution and are consistent with stated purposes. The institution develops indicators for the achievement of its purposes and educational objectives at the institutional, program and course levels. The institution has a system of measuring student achievement, in terms of retention, completion, and student learning. The institution makes public data on student achievement at the institutional and degree level, in a manner determined by the institution. | A,B,C | A,B,D | x | A | A,B | IAi |
| 1.3 | The institution's leadership creates and sustains a leadership system at all levels that is marked by high performance, appropriate levels of responsibility, and accountability. | C | | | | A,B | |

Integrity

| | | | | | | | | |
|-----|---|---|--|---|-------|---|-----|---|
| 1.4 | The institution publicly states its commitment to academic freedom for faculty, staff, and students and acts accordingly. This commitment affirms that those in the academy are free to share their convictions and responsible conclusions with their colleagues and students in their teaching and in their writing. Guideline: The institution has published or has readily-available policies on academic freedom. For those institutions that strive to instill specific beliefs and world views, policies clearly state conditions, and ensure these conditions are consistent with academic freedom. Due process procedures are disseminated, demonstrating that faculty and students are protected in their quest for truth. | | | | | | X | |
| 1.5 | Consistent with its purposes and character, the institution demonstrates an appropriate response to the [sic] increasing diversity in society through its policies, its educational and co-curricular programs, and its administrative and organizational practices. Guideline: The institution has demonstrated institutional commitment to the principles enunciated in the WASC Statement on Diversity. | | | X | A,D,E | B | III | |
| 1.6 | Even when supported by or affiliated with political, corporate, or religious organizations, the institution has education as its primary purpose and operates as an academic institution with appropriate autonomy. Guideline: The institution has no history of interference in substantive decisions or educational functions by political, religious, corporate or other external bodies outside the institutions own governance arrangements. | | | | | | X | |
| 1.7 | The institution truthfully represents its academic goals, programs, and services to students and to the larger public; demonstrates that its academic programs can be completed in a timely fashion; and treats students fairly and equitably through established policies and procedures addressing student conduct, grievances, human subjects in research, and refunds. Guideline: The institution has published or has readily-available policies on student grievances and complaints, refunds, etc. and has no history of adverse findings against it with respect to violation of these policies. Records of students complaints are maintained for a six-year period. The institution clearly defines and distinguishes between the different types of credit it offers and between degree and non-degree credit, and accurately identifies the type and meaning of the credit awarded in its transcripts. The institution has published or readily-available grievance procedures for faculty and staff. The institution's policy on grading and student evaluation is clearly stated, and provides opportunity for appeal as necessary. | | | | A,C | | | |
| 1.8 | The institution exhibits integrity in its operations as demonstrated by the implementation of appropriate policies, sound business practices, timely and fair responses to complaints and grievances, and regular evaluation of its performance in these areas. Guideline: The institution's finances are regularly audited by external agencies. | | | | | | IVA | X |
| 1.9 | The institution is committed to honest and open communication with the Accrediting Commission, to undertaking the accreditation review process with seriousness and candor, to informing the Commission promptly of any matter that could materially affect the accreditation status of the institution, and to abiding by Commission policies and procedures, including all substantive change policies. | X | | | | | | |

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| EER Report Element | | | | | | | |
|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------|------------------------------|--|
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STANDARD TWO: Achieving Educational Objectives Through Core Functions

Teaching and Learning

| | | | | | | | | |
|------|---|-------|-------|---|--|-----|--------------|--|
| 2.1 | The institution's educational programs are appropriate in content, standards, and nomenclature for the degree level awarded, regardless of mode of delivery, and are staffed by sufficient numbers of faculty qualified for the type and level of curriculum offered. Guideline: The content, length, and standards of the institution's academic programs conform to recognized disciplinary or professional standards and are subject to peer review. | A | | X | | | IVC | |
| 2.2 | All degrees --undergraduate and graduate--awarded by the institution are clearly defined in terms of entry-level requirements and in terms of levels of student achievement necessary for graduation that represent more than simply an accumulation of courses or credits. Guideline: Competencies required for graduation are reflected in course syllabi for both General Education and the major. | B, C | A,B,C | X | | B | IAi,IAii,V | |
| 2.2a | Baccalaureate programs engage students in an integrated course of study of sufficient breadth and depth to prepare them for work, citizenship, and a fulfilling life. These programs also ensure the development of core learning abilities and competencies including, but not limited to, college-level written and oral-communication; college-level quantitative skills; information literacy; and the habit of critical analysis of data and argument. In addition, baccalaureate programs actively foster an understanding of diversity; civic responsibility; the ability to work with others; and the capability to engage in lifelong learning. Baccalaureate program also ensure breadth for all students in the areas of cultural and aesthetic, social and political, as well as scientific and technological knowledge expected of educated persons in this society. Finally, students are required to engage in an in-depth, focused, and sustained program of study as part of their baccalaureate programs. The institution has a program of General Education that is integrated throughout the curriculum, including at the upper division level, consisting of a minimum of 45 semester units (or the equivalent) together with significant study in depth in a given area of knowledge (typically described in terms of a major). | | B | X | | B | IAi,IAi,V | |
| 2.2b | Graduate programs are consistent with the purpose and character of their institutions; are in keeping with the expectations of their respective disciplines and professions; and are described through nomenclature that is appropriate to the several levels of graduate and professional degrees offered. Graduate curricula are visibly structured to include active involvement with the literature of the field and ongoing student engagement in research and/or appropriate high-level professional practice and training experiences. Additionally, admission criteria to graduate programs normally include a baccalaureate degree in an appropriate undergraduate program. Institutions offering graduate-level programs employ at least one full-time faculty member for each graduate degree program offered, and demonstrate sufficient resources and structures to sustain these programs and create a graduate-level academic culture. | | | | | | IAi,IAii | |
| 2.3 | The institution's student learning outcomes and expectations for student attainment are clearly stated at the course, program and, as appropriate, institutional level. These outcomes and expectations are reflected in academic programs and policies; curriculum; advisement; library and information resources; and the wider learning environment. | B,C | A | X | | B | IAi,IAii | |
| 2.4 | The institution's expectations for learning and student attainment are developed and widely shared among its members (including faculty, students, staff, and external stakeholders). The institution's faculty takes collective responsibility for establishing, reviewing, fostering, and demonstrating attainment of these expectations. | A,B,C | A,B,C | X | | A,B | IAi, IAii, V | |
| 2.5 | The institution's academic programs actively involve students in learning, challenge them to achieve high expectations, and provide them with appropriate and ongoing feedback about their performance and how it can be improved. | | B,C | X | | B | | |
| 2.6 | The institution demonstrates that its graduates consistently achieve its stated levels of attainment and ensures that its expectations for student learning are embedded in the standards faculty use to evaluate student work. | | A,B,C | X | | B | | |
| 2.7 | All programs offered by the institution are subject to systematic program review. The program review process includes analyses of the achievement of the program's learning objectives and outcomes, program retention and completion, and, where appropriate, results of licensing examination and placement and evidence from external constituencies such as employers and professional organizations. | A,C | | X | | A,B | II | |

Alignment of the EER Report Essays and Appendices with the WASC Criteria for Review. Letters correspond to subsections of the relevant Essay. Appendices are identified by Appendix number (ex. I, II, etc.) and subsection (ex. A, B, etc.). All alignments represented here are provided in the documents as well.

| EER Report Element | | | | | | | |
|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------|------------------------------|--|
| Essay I: Introduction ¹ | Essay II: Educational Effectiveness Analysis ¹ | Essay III: Program Review Analysis | Essay IV: Student Success ¹ | Essay V: Conclusions ¹ | Appendices I-V ² | Addressed in CPR Report only | |

| Scholarship and Creative Activity | | | | | | | |
|--|--|-----|-------|---|---------------|-----|--------------------|
| 2.8 | The institution actively values and promotes scholarship, creative activity, and curricular and instructional innovation, as well as their dissemination at levels and of the kinds appropriate to the institution's purposes and character. Guideline: Where appropriate, the institution includes in its policies for faculty promotion and tenure recognition of scholarship related to teaching, learning, assessment, and co-curricular learning. | A | | X | | | |
| 2.9 | The institution recognizes and promotes appropriate linkages among scholarship, teaching, student learning and service. | A | | X | | A | |
| Support for Student Learning and Success | | | | | | | |
| 2.10 | The institution collects and analyzes student data disaggregated by demographic categories and areas of study. It tracks achievement, satisfaction, and campus climate to support student success. The institution regularly identifies the characteristics of its students and assesses their preparation, needs, and experiences. | B | | X | A,B,C, D,E | B | III,V |
| 2.11 | Consistent with its purposes, the institution develops and assesses its co-curricular programs. | A,B | D,E,F | X | B,C,E | A,B | IAi,IAii, III,V |
| 2.12 | The institution ensures that all students understand the requirements of their academic programs and receive timely, useful, and regular information and advising about relevant academic requirements. Guideline: Recruiting and admission practices, academic calendars, publications, and advertising are accurate, current, complete, and are readily available to support student needs. | | | X | A,B,E | | IVB |
| 2.13 | Student support services—including financial aid, registration, advising, career counseling, computer labs, and library and information services are designed to meet the needs of the specific types of students the institution serves and the curricula it offers. | | D,E | X | A,B,C, E | B | IAii,III,V |
| 2.14 | Institutions that serve transfer students assume an obligation to provide clear and accurate information about transfer requirements, ensure equitable treatment for such students with respect to academic policies, and ensure that such students are not unduly disadvantaged by transfer requirements. | | | | A | | |

Alignment of the EER Report Essays and Appendices with the WASC Criteria for Review. Letters correspond to subsections of the relevant Essay. Appendices are identified by Appendix number (ex. I, II, etc.) and subsection (ex. A, B, etc.). All alignments represented here are provided in the documents as well.

| EER Report Element | | | | | | |
|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------|------------------------------|
| Essay I: Introduction ¹ | Essay II: Educational Effectiveness Analysis ¹ | Essay III: Program Review Analysis | Essay IV: Student Success ¹ | Essay V: Conclusions ¹ | Appendices I-V ² | Addressed in CPR Report only |

STANDARD THREE: Developing and Applying Resources and Organizational Structures to Ensure Sustainability

Faculty and Staff

| | | | | | | | |
|-----|---|---|-----|---|--|-----------|--|
| 3.1 | The institution employs personnel sufficient in number and professional qualifications to maintain its operations and to support its academic programs, consistent with its institutional and educational objectives. | | | X | | V | |
| 3.2 | The institution demonstrates that it employs a faculty with substantial and continuing commitment to the institution sufficient in number, professional qualifications, and diversity to achieve its educational objectives, to establish and oversee academic policies, and to ensure the integrity and continuity of its academic programs wherever and however delivered. Guideline: The institution has an instructional staffing plan that includes a sufficient number of full-time faculty with appropriate backgrounds, by discipline and degree level. The institution systematically engages full-time non-tenure track, adjunct, and part-time faculty in such processes as assessment, program review, and faculty development. | | | X | | IVA,IVC,V | |
| 3.3 | Faculty and staff recruitment, orientation, workload, incentive, and evaluation practices are aligned with institutional purposes and educational objectives. Evaluation processes are systematic, include appropriate peer review, and, for instructional faculty and other teaching staff, involve consideration of evidence of teaching effectiveness, including student evaluation of instruction. | A | | | | IVC,V | |
| 3.4 | The institution maintains appropriate and sufficiently supported faculty and staff development activities designed to improve teaching and learning, consistent with its institutional objectives. Guideline: The institution provides training and support for faculty members' teaching by means of technology-mediated instruction. | C | D,F | | | A,B | |

Fiscal, Physical, and Information Resources

| | | | | | | | |
|-----|--|--|--|--|--|------|---|
| 3.5 | The institution has a history of financial stability, unqualified independent financial audits and has resources sufficient to ensure long-term viability. Resources are aligned with educational purposes and objectives. If campus has an accumulated deficit, it has realistic plans to eliminate the deficit. Resource planning and development include realistic budgeting, enrollment management, and diversification of revenue sources. | | | | | IVA | |
| 3.6 | The institution holds, or provides access to, information resources sufficient in scope, quality, currency, and kind to support its academic offerings and the scholarship of its members. These information resources, services, and facilities are consistent with the campus' educational objectives and are aligned with student learning outcomes. For both on-campus students and students enrolled at a distance, physical and information resources, services, and information technology facilities are sufficient in scope and kind to support and maintain the level and kind of education offered. | | | | | IAii | |
| 3.7 | The institution's information technology resources are sufficiently coordinated and supported to fulfill its educational purposes and to provide key academic and administrative functions. | | | | | | X |

Organizational Structures and Decision-Making Processes

| | | | | | | | |
|------|--|-----|---|---|--|-----|---|
| 3.8 | The institution's organizational structures and decision-making processes are clear and consistent with its purposes, support effective decision-making, and place priority on sustaining effective academic programs. Guideline: The institution establishes clear roles, responsibilities, and lines of authority, which are reflected in an organizational chart. | A,C | G | X | | A,B | |
| 3.9 | The institution has an independent governing board or similar authority that, consistent with its legal and fiduciary authority, exercises appropriate oversight over institutional integrity, policies, and ongoing operations, including hiring and evaluating the chief executive officer. The governing body regularly engages in self-review and training to enhance its effectiveness. | | | | | | X |
| 3.10 | The institution has a full-time chief executive office and a chief financial officer whose primary or full-time responsibility is to the institution. In addition, the institution has a sufficient number of other qualified administrators to provide effective educational leadership and management. | | | | | | X |
| 3.11 | The institution's faculty exercises effective academic leadership and acts consistently to ensure both academic quality and the appropriate maintenance of the institution's educational purposes and character. Guideline: The institution clearly defines the governance roles, rights, and responsibilities of the faculty. See related policies regarding Collective Bargaining and Institutional Units in a System. | A | | X | | A,B | |

Alignment of the EER Report Essays and Appendices with the WASC Criteria for Review. Letters correspond to subsections of the relevant Essay. Appendices are identified by Appendix number (ex. I, II, etc.) and subsection (ex. A, B, etc.). All alignments represented here are provided in the documents as well.

| EER Report Element | | | | | | |
|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------|------------------------------|
| Essay I: Introduction ¹ | Essay II: Educational Effectiveness Analysis ¹ | Essay III: Program Review Analysis | Essay IV: Student Success ¹ | Essay V: Conclusions ¹ | Appendices I-V ² | Addressed in CPR Report only |

STANDARD FOUR: Creating an Organization Committed to Learning and Improvement

Strategic Thinking and Planning

| | | | | | | | | |
|-----|--|---|---------|---|-----|-----|----------------------|--|
| 4.1 | The institution periodically engages its multiple constituencies, including faculty, in institutional reflection and planning processes which assess its strategic position; articulate priorities; examine the alignment of its purposes, core functions and resources; and define the future direction of the campus. The institution monitors the effectiveness of its plans and planning processes, and revises them as appropriate. | | | | | B | IVA | |
| 4.2 | Planning processes at the institution define and, to the extent possible, align academic, personnel, fiscal, physical, and technological needs with the strategic objectives and priorities of the institution. | A | | X | D | A | IAii,IB,IVA,IVB,V | |
| 4.3 | Planning processes are informed by appropriately defined and analyzed quantitative and qualitative data, and include consideration of evidence of educational effectiveness, including student learning. | C | A,C,F,G | X | D,E | A,B | IAi,IAii,III,IVB,IVC | |

Commitment to Learning and Improvement

| | | | | | | | | |
|-----|---|-------|---------------|---|-----------|-----|----------------------|--|
| 4.4 | The institution employs a deliberate set of quality assurance processes at each level of institutional functioning, including new curriculum and program approval processes, periodic program review, ongoing evaluation, and data collection. These processes include assessing effectiveness, tracking results over time, using comparative data from external sources, and improving structures, processes, curricula, and pedagogy. | A,B,C | A,B,C,D,E,F,G | X | A,C | A,B | IAi,IAii,II,III,V | |
| 4.5 | The institution has institutional research capacity consistent with its purposes and objectives. Institutional research addresses strategic data needs, is disseminated in a timely manner, and is incorporated in institutional review and decision-making processes. Included in the institutional research function is the collection of appropriate data to support the assessment of student learning. Periodic reviews are conducted to ensure the effectiveness of the research function and the suitability and usefulness of data. | | | X | A,B,C,D,E | B | IVA,IVB,IVC | |
| 4.6 | Leadership at all levels is committed to improvement based on the results of the processes of inquiry, evaluation and assessment used throughout the institution. The faculty takes responsibility for evaluating the effectiveness of the teaching and learning process and uses the results for improvement. Assessments of the campus environment in support of academic and co-curricular objectives are also undertaken and used, and are incorporated into institutional planning. Guideline: The institution has clear, well established policies and practices for gathering and analyzing information that leads to a culture of evidence and improvement. | A,B,C | A,B,C,D,E,F,G | X | B,C,E | A,B | IAi,IAii,IB,II,III,V | |
| 4.7 | The institution, with significant faculty involvement, engages in ongoing inquiry into the processes of teaching and learning, as well as into the conditions and practices that promote the kinds and levels of learning intended by the institution. The outcomes of such inquiries are applied to the design of curricula, the design and practice of pedagogy, and to the improvement of evaluation means and methodology. Guideline: Periodic analysis of grades and evaluation procedures are conducted to assess the rigor and effectiveness of grading policies and practice. | B,C | A,B,C | X | | A,B | IAi,IAii,IB,II | |
| 4.8 | Appropriate stakeholders, including alumni, employers, practitioners, and others defined by the institution, are regularly involved in the assessment of educational programs. | | | | | | IAi | |