between program reviews is 7 to 8 years, a program would be reviewed in year 3 or 4 to assess its progress.

A future consideration is to better link the results of program reviews with resource allocations, particularly in situations where a review identifies a critical need in a program. While senior administrators – deans and the Executive Vice Chancellor/Provost – play an important role in the process of undergraduate program review at UCR – e.g., meeting with the external review team and receiving the program review materials, including the self study, external team report, and findings and recommendations – the link between program review results and decisions regarding resource allocations should be less tenuous. The campus understands that WASC intends to adopt new, best practice standards for program reviews which include recommendations on the link between program review results and resource allocation decisions. The campus eagerly awaits the dissemination of that document, and intends to act on the recommendations at that time.

**Section 4. Further development of student success efforts.** Based on the findings of the institution and the team at the CPR review, the institution will be expected to further its analysis of student success, deepening its analysis of its own and comparative data of graduation and retention rates, year to year attrition, campus climate surveys, etc.

Student success is discussed in detail in Section 2, and in Appendix A. Discussions of analyses of student success are also found in Section 5, below.

**Section 5. An updated Data Portfolio and supporting evidence, expanded to include elements relevant to the EER, including a plan, methods, and schedule for assessment of learning outcomes beyond the Educational Effectiveness Review.** Building on the Data Portfolio developed for the Capacity and Preparatory Review, the institution should present additional evidence and exhibits that support its analysis of Educational Effectiveness and student learning. The institution should provide an updated version of the Summary Data Form, Inventory of Educational Effectiveness Indicators, and the Inventory of Concurrent Accreditation, as well as listing current assessment activities, such as the one originally submitted as part of the CPR Review. In addition, the institution might include selected results of assessment studies, results of any summative learning measures deemed important by the institution (e.g., pass rates for licensure examinations, capstone courses, etc.), surveys of graduates and current students, and employer feedback on former student performance. Institutions should comment on a summary of the data analysis and expectations for improvement, including milestone targets, for specific groups of learners as reflected in graduation and retention outcomes.

As UCR comes to rely more and more on a “culture of evidence” approach to decision making, the generation and analysis of data become key. The Data Portfolio included in the Preparatory Review Report has been updated and is found in File 4, one of the electronic files supplemental to this EER Report. It includes an updated Inventory of Educational Effectiveness Indicators (Table 7.1) and an updated Concurrent Accreditation listing (Table 8.1). The updated Summary Data Form is found in File 3, another of the electronic files supplemental to this EER Report.

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1 See the second focus of the Undergraduate Theme, (pp 8-17).
2 See Item (4) (pp A-2 to A-5) and Item (11) (pp A-11 to A-12).
Analyses of graduation and retention outcomes are found elsewhere in this Report,\(^3\) as are special efforts to put information into the hands of decision-makers and/or those who are in a position to act on the data.\(^4\) Other analyses and their use are discussed below.

Comprehensive learning outcomes and assessment methods have been developed for undergraduate majors in the College of Humanities, Arts and Social Sciences and the College of Natural and Agricultural Sciences; they include multi-year assessment plans for the majors. The information is stored in the On-line Assessment Tracking System (OATS), to which the WASC Visiting Team will be provided complete access. The multi-year assessment plans assure assessment of learning outcomes beyond the Educational Effectiveness Review. Results from the assessment process are required for each undergraduate program when it undergoes periodic programmatic review by the Academic Senate Committee on Educational Policy, assuring that the results will be reviewed and recommendations for action made.\(^5\)

A sustainability plan for learning outcomes assessment will be prepared in June by the EVC/Provost, the deans, the VPUE, and the Academic Senate. [Details of the sustainability plan will be included in the final version of this report.]

UCR’s College Portrait program provides potential students and their parents with a wide range of information about UCR, including “value added” measures of learning and personal growth through experiences in a diverse research university. Modeled on the current national standards, UC Riverside’s Portrait is presented in a similar format for ease in comparing colleges and universities.\(^6\) Highlights of the UCR Portrait include reports of active learning experiences (with 96% of students reporting they made class presentations and 41% reporting they assisted faculty with research or a creative activity); commitments to student learning and success (with 95% reporting raising their standards for acceptable effort due to the high standards of a faculty member); student satisfaction (with 82% satisfied with their overall academic experience and 72% of seniors reporting they would choose to attend the institution again); and experiences with diverse groups (with 64% of students reporting having gained a deeper understanding of other perspectives through conversations with students of a different nationality, race or ethnicity). Between freshman and junior or senior year there were significant increases in the percentage of students reporting as “excellent” or “very good” their analytical/critical thinking skills, understanding of international perspectives, leadership skills, interpersonal skills, and self awareness and understanding ability.

As was discussed in UCR’s Preparatory Review Report, UCR is the only UC campus to have participated in the Collegiate Learning Assessment (CLS). It provides a summative measure of the strong value added in a student’s higher order skills as a result of studying at UCR. In the initial study the assessment was based on a comparison of freshmen and seniors. The cohort of freshmen was then assessed near the end of its sophomore year. The results of that administration of the CLA demonstrate a growth over time in the higher order skills of these

\(^3\) See Appendix A, Item (4) (pp A-2 to A-5).
\(^4\) See Appendix A, Item (11) (pp A-11 to A-12).
\(^5\) See Appendix A, Item (5) (pp A-5 to A-7) and Appendix B, p B-17.
\(^6\) For more information and a copy of the UCR College Portrait see [http://collegeportrait.ucr.edu/](http://collegeportrait.ucr.edu/).
students. This year the campus is testing the same freshmen now that they are seniors, to extend the cohort assessment of value added. If results are available by the time of the visit of the WASC Team, they will be provided to the Team.

Data analyses are central to many UCR projects. Below are brief discussions of select studies conducted to address various academic and co-curricular issues and concerns on the campus in the past few years. A variety of reports and resources regarding evaluations are found at [http://irue.ucr.edu/](http://irue.ucr.edu/), particularly [http://irue.ucr.edu/reports.html](http://irue.ucr.edu/reports.html) and [http://irue.ucr.edu/assessment.html](http://irue.ucr.edu/assessment.html).

First Year Learning Communities (FYLC) are discussed elsewhere in this Report. An analysis of FYLC in 2006-07 showed that participants had more contact with faculty during office hours, reported higher levels of effort and engagement with their coursework, were more aware of and more likely to use academic resources, and were more likely to be engaged with campus activities outside of class. Separate evaluations of FYLC in fall 2006 and in fall 2007 also compared entering freshmen who participated in a Learning Community to non-participants in the same cohort. Analysis shows that participation in a Learning Community increases the first year retention rate by three percentage points on average. Results across colleges have been used to establish best practice programs and foster experimentation.

Supplemental Instruction (SI) is also discussed elsewhere in this Report. The fall 2006 SI evaluation compares the grades of those who participated in SI with the grades of non-participants. Analysis indicates that participation in SI increases overall course grade by one-third of a grade point. That is, a participant with a C+ in a given course could expect to have received a B- if he or she attended SI sessions. This average effect persists in the 2007-2008 evaluations. The evaluations are used to enhance program processes, delivery of instruction, and overall construct of the program.

A study of the Determinants of First Year Persistence was conducted on UCR’s fall 2006 entering freshman student body. The results suggest that both academic and non-academic factors are significantly related to freshman retention. Possessing a good high school GPA, living on UCR’s campus during freshman year, and having one’s financial aid need met are all important and robust determinants of student retention. Planning to work full-time while a UCR student negatively affects retention, while involvement in high school clubs/organizations and being attracted to UCR because its graduates enter top graduate institutions are positive determinants of student retention. A detailed analysis of the observed characteristics of entering freshmen indicated that the about one-third of the observed decline in retention rate between 2005 and 2006 can be attributed to a decline in high school GPA of entering students. A Predicted Probabilities model was developed from the analysis; it predicts student’s retention rate and academic performance based on characteristics variables. The model assisted Undergraduate Admissions with their limited use of special admission of fall 2007 applicants not meeting University admissions requirements. The model will also be used to better place

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7 See Section 2, Undergraduate Theme, p. 21.
8 See Section 2, Undergraduate Theme, p. 11.
students into their first math course upon matriculation, and will be used in a pilot program in the Writing Program for English placement upon matriculation.⁹

**Student Survey Briefs** are informational and educational pamphlets that address important campus issues and concerns, especially with respect to freshmen and transfer students. They are produced jointly by UE and Student Affairs. They address such issues as part-time employment of students, class attendance and study time, the adjustment of different student groups to UCR, transfer student success, and scholarly engagement. Copies will be available in the WASC Team room.

As is discussed in Section 2, Undergraduate Theme, the Mathematics Advisory [Placement] Exam (MAE) and the programs or services offered to students in pre-calculus courses were thoroughly evaluated in 2007-08. Analyses showed that the MAE cut-off scores should be revised; too many students were being placed in mathematics courses they were not adequately prepared to pass. Additional analyses differentiated between placement in Math 8A (Introduction to College Mathematics for the Sciences) and placement in college algebra [which is not offered at UCR]; this allowed identifying, prior to matriculation, students with mathematics deficiencies who would be required to take a community college algebra course as their entry math course. The Mathematics Department decided, on the basis of findings from the various analyses, to administer a Second Mathematics Assessment Exam in the first and second week of instruction, to identify students who might be in possible danger of performing poorly in the course and intervene with appropriate academic services for assistance. Finally, a Math Task Force was formed to continue to address the concerns of the relatively high failure rates in mathematics course.

More discriminating analyses of the MAE and student course performance were conducted in 2008-09, including the utility of using factors other than MAE score for placing students in mathematics courses and the success rate of students in different mathematics course sequences. Using performance in Mathematics 9B [second quarter of First-Year Calculus] as the measure of success or failure, preliminary analyses indicate that students starting in Mathematics 8A [Introduction to College Mathematics for the Sciences] had a higher failure rate than those starting in Math 5 [Pre-calculus]. Studies will be extended to include results from the UCUES (UC Undergraduate Experience Survey) survey instrument. The Math Task Force will prepare a final report of findings and recommendations for the Vice Provost of Undergraduate Education and the Mathematics Department for review and possible action to improve the high failure rates in the pre-calculus math courses. A copy of the report will be placed in the WASC Team room if it is completed by the time of the WASC Team visit.

**Summer Bridge** evaluation is underway. The preliminary results of the retention analysis for Summer Bridge indicate moderate to no impact of Summer Bridge on student retention, for the Mathematics 5 cohort or the English 4 cohort.¹⁰

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⁹ For more discussion, see Section 2, Undergraduate Theme, pp 18-19.
¹⁰ See Section 2, Undergraduate Theme, p. 9, for more information on Summer Bridge.
Student Affairs has conducted a number of studies and analyses of student characteristics to serve as a baseline for future studies, so changes in the student body over time can be tracked. The baseline data are also helpful in assessing the need for specific services and programs and in evaluating the effects of possible intervention strategies and approaches. A few of these studies are discussed below.

A fall 2008 study of adjustment to college on the part of students who were the first in their generation to attend college found no difference in degree of adjustment from students who were not first in their generation to attend. Students in general found academic adjustment a greater challenge than interpersonal or personal adjustment. Academic adjustment was easier for male, Black/African American and White/Caucasian students; it was more difficult for Asian American, Chicano/Latino, and female students. Personal adjustment was easiest for Black/African and male students. The Career Services Office is developing a program addressing the needs of first generation college students.

Reported parental involvement was also assessed. A higher percentage of female students reported that their parents inquired about academic progress than did male students; 82% of Black/African American students report their parents inquired about their academic progress, whereas only 48% of Asian American students report such parental inquires. The full report will be in the WASC Team Room.

Co-curricular involvement and satisfaction with UCR were assessed with the University of California Undergraduate Experiences Survey (UCUES). Not surprisingly, there were strong correlations among satisfaction with the overall social experience at UCR, satisfaction with the overall academic experience at UCR, and a feeling that the student belonged at UCR. Satisfaction with the UCR academic experience varied by ethnic group. It is clear from this information that Asian undergraduates are the least satisfied with the social and academic environment, in spite of the fact that they constitute the largest ethnic or racial percentage of the undergraduate population (about 40%). This finding is being followed up with further study of the Asian population, including stratification of responses by subgroup of Asian students. The overall report has been shared with the directors of the Student Affairs ethnic program offices.

The 2006 Cooperative Institutional Research Program (CIRP) survey of almost 2,300 UCR freshmen compared goals of different racial/ethnic groups and expectations of different racial/ethnic groups. With respect to goals, African American freshmen are the racial/ethnic group most interested in a wide variety of activities, including helping to promote racial understanding. Chicano freshmen are also a group strongly interested in helping to promote racial understanding. Latino freshman are most interested in improving their understanding of other countries and cultures, becoming a community leader, and influencing social values. Asian American freshmen are most interested in becoming successful in their own business. Caucasian students, composing 14.6% of the freshman student body, are the racial/ethnic group least interested in participating in a community action program, helping to promote racial understanding, becoming involved in programs to clean up the environment, being well off

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11 See Appendix B, pp B-15 to B-16 for detailed results.
financially, becoming successful in their own business, or having administrative responsibility for the work of others.\textsuperscript{12}

The campus aspires to recreate the experience of UC Santa Barbara, which about ten years ago improved its retention rate by 4-5 percentage points. The campus is using analyses like those discussed above to provide guidance in the process. Ongoing studies of time to degree for undergraduates and in depth studies of graduation rates will further assist the campus in constructing programs for student success.

Section 6. An Integrative Component. All Educational Effectiveness Reports are expected to include an Integrative Component in which the institution synthesizes and integrates the discrete elements of its Educational Effectiveness Self-Review and the impact of the entire sequential accreditation review process. For most institutions, this will take the form of an integrative chapter. Some institutions may choose to provide integrative comments and reflections throughout their presentation. Whichever model is used, the institution should move beyond the separate topics for review, and ask: Were there common themes or issues that emerged? What was learned from the internal review process, and what major recommendations emerged? Were the goals and outcomes established in the Proposal achieved? What will be the next steps taken to address the major recommendations of the internal review process, and how will momentum be sustained?

The impact of the internal review on UCR has become clearer as the campus enters the final stages of its Educational Effectiveness Review. In addition to the various accomplishments associated with each of the three themes, the process – and especially the integration of the themes – has yielded a clearer vision of what UCR is and where it wants to be. The self-study process has provided the campus many insights, but arguably the most important is the value of a “culture of evidence” approach to decision making. There is great value in setting out goals, taking stock of the resources and organizational structure required to meet them, and then periodically exploring of the extent to which those goals have been achieved. The campus has accomplished a great deal in this reaccreditation cycle, but realizes that there is important work to be done. This integrative essay concludes with a summary of recommendations, or rather “next steps,” in the development of the three themes and in building an evidence-based approach to decision making at UCR.

The three special themes selected more than four years ago by the campus for its reaccreditation process have remained central to the planning and activities of the campus, in spite of the turnover of the Chancellor, Executive Vice Chancellor/Provost, and Accreditation Liaison Officer positions, as well as major turnover of membership on Academic Senate and administrative committees. Each theme represents a process by which key questions and goals are addressed, promising new areas of study are discovered, and further work is planned. The Undergraduate Theme: Improving Undergraduate Student Engagement, Experience, and Learning Outcomes; the Graduate Theme: Growing and Improving Graduate and Professional Programs; and the Diversity Theme: Learning within a Campus Culture of Diversity will remain campus concerns, regardless of the outcome of the current budgetary crisis.

\textsuperscript{12} For the full report, including discussion of differences in expectations, see Appendix B, p. B-18.