

**College of Arts and Sciences  
ANNUAL REPORT  
June 30, 2007**

**Mission Statement**

The College of Arts and Sciences is the academic core of the University of Missouri-St. Louis, a public, metropolitan research university that serves Missouri's most populous and economically and socially diverse region. Through academic programs offered on and off campus, it educates traditional and nontraditional students who will supply knowledge, skills, and intellectual leadership in both the private and public sectors. Active engagement in research and scholarship enables College faculty in every department to advance knowledge and to impart research methods and results directly in their classroom teaching. In addition to providing extensive opportunities in general education and undergraduate and graduate degree programs in many disciplines, the College offers multi-disciplinary programs in life and environmental sciences.

**I. Research**

The College had a very successful year as measured by faculty achievements related to research. Faculty in the College continue to publish articles in top-tier journals in their fields and to publish books with some of the most prestigious publishers in the world. The College brings in most of the external research funding on the campus and that funding is used to support not only the research of the faculty member but also research done by both undergraduate and graduate students. A complete description of research accomplishment for each department is provided in the department annual reports that are available on the Sharepoint web site in Academic Affairs. This report provides a summary of some key accomplishments.

**A. Research Accomplishments**

**Anthropology:** Michael Cosmopoulos sank the first trench at his Bronze Age site in Iklaina, Greece, exposing a possible palace site dating to the time of the Trojan War. Susan Brownell received a Fulbright Scholar Award for research on "The 2008 Beijing Olympic Games: "One World, One Dream" and the book launch ceremony for *He Zhenliang and China's Olympic Dream* was held in the Great Hall of the People in Beijing. The text of the speech she made in Chinese was published in the *People's Daily*. Donna Hart's co-authored book (with Robert Sussman), *Man the Hunted: Primates, Predators and Human Evolution* won the 2006 W.W. Howells Book Prize from the American Anthropological Association and was recognized at the annual meeting of the AAA. Donna Hart and Pam Ashmore's article, "Changing Students' Understanding of Race," *Anthropology News* was part of the "RACE: Are we so different?" website of the American Anthropological Association, which was one of five nominees for the Webby Awards, the leading national award for excellence on the internet.

**Biology:** The Department of Biology faculty has had a productive year in terms of research publications, with more than 75 articles and book chapters. These include

articles in internationally prominent science journals: *Science* (Wang) and *Proceedings of the National Academy of Sciences* (Hunt, Kellogg). The Department's Curators' Professor (Ricklefs) and Des Lee Professors (Kellogg, Parker, Wang) were particularly productive, but most faculty sustained programs of high-quality research. Particularly noteworthy is *The Evolution of Social Wasps* (Hunt), published by Oxford University Press. Through the first 10 months of fiscal year 2007, faculty in Biology have been awarded 20.84 external grants with funding of \$2,097,069. Because most external funding for biological research comes from the extremely highly competitive National Science Foundation and National Institutes of Health, the sustained high level of funding documents both the quantity and notable quality of research by the Biology faculty and students.

**Chemistry & Biochemistry:** James S. Chickos won the 2006 St. Louis Award for Chemistry and George Gokel was honored with an issue of *New Journal of Chemistry*. New grants awarded last year totaled over \$2.9 million, a new high.

**Criminology & Criminal Justice:** Eric Stewart received the MacNamara Prize awarded annually by the Academy of Criminal Justice Sciences (ACJS) for the best article published in an ACJS sponsored journal. Rick Rosenfeld received the University of Missouri-St. Louis Chancellor's Award for Excellence in Research and Creativity. Eric Baumer and Janet Lauritsen contributed invited papers to a National Academy of Sciences Workshop on Crime Trends. Richard Wright co-authored a book on retaliation published by Cambridge University Press. Finn Esbensen received a grant from the U.S. National Institute of Justice totaling almost 2.5 million dollars.

**Economics:** Lawrence H. White, editor and introduction, *The Pure Theory of Capital* by F. A. Hayek (University of Chicago Press, 2007). Anne Winkler received a \$203,000 grant from the Mellon Foundation to conduct research on the diffusion of IT on research productivity in higher education.

**English:** English faculty accomplishments included: an edited volume from a premier journal in medieval studies, *Studies in the Age of Chaucer* (edited by Frank Grady); an edited volume of *Natural Bridge* (edited by Nanora Sweet); and the Koret Jewish Book Award (to Howard Schwartz for his children's book, *Before You Were Born*). There were a total of 44 publications, including book chapters, articles, short stories, and poems and one book published (Howard Schwartz).

**History:** John R. Gillingham published *Design for a New Europe* (Cambridge University Press, 2006), praised by Vaclav Klaus, President of the Czech Republic as "a remarkable account" that "should be considered in any serious debate about the further course of European integration." Andrew Hurley published "Narrating the Urban Waterfront: The Role of Public History in Community Revitalization," in *The Public Historian* (Fall 2006). Deborah Cohen published "From Peasant to Worker: Migration, Masculinity and the Making of Mexican Workers in the United States," in *International Labor and Working Class History* (Fall 2006). Steven Rowan was appointed Senior Fulbright Scholar and taught at the University of Gratz during Spring Semester 2007.

**Mathematics & Computer Science:** Faculty in the department published a total of 16 papers in journals, 15 publications in conference proceedings, acted as editors of 7 different journals and obtained or continued to work on 8 different grants. One book was also published.

**Political Science:** Ruth Iyob published *Sudan: The Elusive Quest for Peace*. Co-Authored with Gilbert M. Khadiagala. Iyob's book on the Sudan and Darfur is both timely and significant. Robertson continues his exemplary work on the Constitution. Kimball's work on the structure of elections is also timely given questions raised about recent elections near and far. Most faculty published one or more articles or book chapters.

**Psychology:** In FY 2007, the Psychology Department increased its external funding to almost \$600,000 and The Children's Advocacy Center of Greater St. Louis increased its external funding to \$740,000. The Psychology Department continues to be actively engaged in research; the mean number of publications per tenure track faculty member during the past year was 2.56 publications (the median was 2). Perhaps the most significant publication of the year was the 587 page volume edited by Miles Patterson and Valerie Manusov: *The Sage Handbook of Nonverbal Communication*. Patterson was also invited to give three lectures on non-verbal communication at Japanese universities during the past year.

**Physics and Astronomy:** Sonya Bahar received a prestigious and highly competitive five-year NSF CAREER grant. A paper by Frank Moss and undergraduate Ricardo Garcia entitled "Optimal Foraging by Zooplankton" was selected for a press release and press conference at the March 2007 meeting of the American Physical Society. The research is discussed in the March 17, 2007 issue of the popular science periodical *New Scientist*.

**Sociology:** Chikako Usui delivered a plenary lecture entitled, "Japanese Business Studies in the United States: Current Trends and Issues" at a symposium entitled Management and Leadership, Toyo University. Sociology faculty published both articles and book chapters.

## **B. How the faculty incorporated research into their teaching**

**Anthropology:** Donna Hart's and Pam Ashmore's research is *about* teaching and is incorporated into their classes, such as Ashmore's class on The Creation-Evolution Debate. Michael Cosmopoulos had 20 students working on his excavation. Patti Wright offered a course on Archaeological Artifact Analysis, in which students helped process her research data. Mike Ohnorsorgen will be taking students with him to his excavation in Northwest Mexico in summer 2007. Susan Brownell utilized her experience in applying for a Fulbright and in sitting on the Fulbright National Screening Committee in 2006 to mentor James Daugherty's successful application for a Student Fulbright Award. Donna Hart utilized her research contacts to arrange a research project that helped Lana

Kerker win a Student Fulbright Award. Allon Uhlmann worked with his students to create a website on Cognitive Anthropology in his class of that same name.

**Biochemistry & Biotechnology:** Faculty in the Biochemistry & Biotechnology program often incorporate their research expertise in courses they teach in the program, especially in the lab courses that depend on expertise faculty have in research techniques important to the field. Ten students in the program worked with faculty on research projects in their labs during the year and made presentations at the 2007 Undergraduate Research Symposium.

**Biology:** Faculty research and up-to-date knowledge shape and inform their classroom teaching. Most faculty mentor research students who are enrolled in courses for undergraduate and graduate research. In 2006-07, 91 undergraduate and 172 graduate students were enrolled in research courses.

**Chemistry & Biochemistry:** Faculty members in Chemistry often incorporated research knowledge into lectures at all levels. Undergraduates are encouraged to experience research with a faculty mentor. In 2006-2007, Chemistry had over 15 undergraduate enrolled in research and all PhD students were actively involved in research.

**Economics:** Anne Winkler has integrated the use of the newly available American Time Use Survey into her graduate labor course.

**English:** Faculty have incorporated research into their teaching by offering specialized seminars and workshops which focus on their areas of scholarship

**History:** All tenure track members of the History Department are teacher/scholars who incorporate their research into their classroom teaching. Two prominent examples are Andrew Hurley whose scholarly work on heritage-based urban redevelopment informs his course on Urban History and his work with the Public Policy Research Center; Deborah Cohen' scholarly work on Mexican workers in the United States informs her courses on Mexican-American history and her cross listed courses with History and the Institute for Women's and Gender Studies.

**IWGS:** A number of IWGS faculty incorporated their research into teaching of IWGS courses. Through reading and written assignments, Kathy Gentile utilized ongoing research on theories of comedy in her Jane Austen and Comedy seminars. Deborah Cohen used her theoretical gender research from her book manuscript in her courses Sexuality and Gender Theory and History of Sexuality. From her teaching of Introduction to Women's and Gender Studies, Farida Jalalzai found supportive readings and theories for her research on women leaders.

**Mathematics & Computer Science:** Their graduate courses are often on cutting edge topics like the theory of wavelets or evolutionary methods of optimization. Several students do research projects as part of independent study courses.

**Political Science:** A number of professors—Mushaben, Gros, Iyob, for example—teach classes directly related to and inclusive of their current research.

**Psychology:** Psychology faculty routinely incorporated their own research as well as the research findings of others into most of their classes. In addition, during the past year 82 students signed up for Psychology 3390, a course that allows students to work on research with a Psychology faculty member. Several of these projects have led to poster presentations at professional meetings and publications (see below).

**Physics and Astronomy:** Faculty members in the Department have directed 145 credit hours of research projects for 27 students at the graduate and undergraduate level and three students at the high school level. Bahar and research assistant professor Tsytsarev developed a capstone course “The Biophysics of Imaging” for the medical physics option, which course draws heavily on Bahar’s research in neuroscience. Ta-Pei Cheng taught the course “Relativity and Cosmology” using his textbook. Phil Fraundorf taught a course in his specialty on the techniques in electron microscopy. Erika Gibb incorporated her research in the capstone course in the astrophysics option, “Observational Astronomy.”

**Sociology:** Social science research draws upon different perspectives and empirical traditions in investigation diverse questions in the modern world. It stimulates discussion, challenges existing assumptions, and raises new questions. Thus, faculty members’ research links the textbooks and class room readings with the latest research findings in the field by connecting the abstract logic of social science theories to concrete applications found in the latest research.

### **C. The quantity, quality, and/or focus of research, and plans to sustain quality or improve gaps.**

**Anthropology:** In the past year, all regular faculty members (and Donna Hart, an adjunct) either had refereed publications or were actively engaged in research abroad that should lead to publications. One faculty (Uhlmann) published a book with Ashgate Press. The quality is also good - awards were noted above. Michael Cosmopoulos had publications in two of the top journals in his fields of archaeology; Jay Rounds had a publication in the top journal in museology; Patti Wright and Margo Hurwicz had co-authored publication in top specialist journals in their fields. The eclectic nature of the Department precludes a unified focus for research or a critical mass in any one field.

**Biology:** Department-level planning for research is reflected in descriptions of vacant positions and selection of new faculty rather than in any program of directed research. The Department's internationally-known strength in Ecology, Evolution, and Systematics (EES) enabled it to fill a vacancy in plant ecology with Amy Zanne. The Department’s emphasis area in Cell and Molecular Biology (CMB) lost an associate professor and will seek a developmental biologist in 2007-08. The success of the new degree programs in

Biochemistry and Biotechnology has left the Department particularly short-staffed in CMB.

**Chemistry & Biochemistry:** The quantity and quality of research is affected by the numbers of graduate research assistants and postdoctoral associates, the laboratory infrastructure, and the number of research active faculty. Chemistry has submitted proposals for funding to improve both the NMR and the mass spectrometry facilities. Individual faculty members submit proposals for funding to support graduate research assistants and postdoctoral associates, thus increasing the volume of experimental findings. Chemistry is also trying to increase collaborative efforts through the Center for Nanoscience and with initiatives such as the new departmental cell culture facility.

**Criminology & Criminal Justice:** The quantity and quality of research produced by this department is outstanding by any measure. Many articles appear in peer refereed criminological or sociological journals universally recognized as being top tier; all were published in highly respected outlets. The productivity of individual faculty members is assessed annually by the Chair in consultation with members of the elected Departmental Executive Committee as part of their routine annual faculty performance assessment exercise.

**Economics:** Although slightly above discipline norms, the quantity of research produced by the department is below faculty members capabilities and too often reflects a preoccupation with research and publication per se rather than research and publication on truly consequential topics. The Chair is taking steps to promote the latter, including developing a proposal to alter tenure and promotion standards by sending out no more than three papers for outside review. He anticipates that this approach will discourage economists who are just good at being busy from wanting to work here and will encourage those who think big to prefer the UMSL Economics Department over other, possibly more prestigious, departments.

**English:** The quantity and quality of faculty research are high, and both the in-progress and the in-press publications (one with Yale UP and one with Oxford UP) indicate that faculty will continue to produce significant work in the future. To sustain the quality and quantity of research, the department will continue to support course-load reductions, travel to archives and conference, and other research activities.

**History:** Several members of the History Department, including Kevin Fernlund, Louis Gerteis, Andrew Hurley, Minsoo Kang, Richard H. Mitchell, Steven Rowan, Carlos Schwantes and Laura Westhoff, are engaged in research and writing that will produce scholarly books and articles in the next year. When new positions become available, the History Department plans to build on its new emphasis areas: Metropolitan History, Regional History, National History and Transnational History.

**IWGS:** During the past two years, IWGS has re-established the faculty colloquia series, which provides faculty a venue to present and polish works-in-progress. Cohen and Jalalzai have each presented a faculty colloquium. They have also established an IWGS

Small Grant Fund, funded by the distributions from the IWGS Endowment, which provides support for gender-related research. Cohen, Jalalzai, Sweet, and Nigro have all received awards, along with other affiliated faculty.

**Mathematics & Computer Science:** There are two groups in the department, one in wavelets and the other in evolutionary computation, and members of these groups often publish joint papers. Other faculty members have collaborations with colleagues in other universities, both local and out of town.

**Psychology:** Psychology continues to hire new faculty who have demonstrated their commitment to research during their graduate and postdoctoral experiences. Several new faculty members have already received external funding. The Department has spent many hours discussing the exact type of research expertise that it wants in new faculty so as to complement existing faculty strengths.

**Physics and Astronomy:** The majority of research grants in the Department were won by assistant professors. It is expected that the quality of research will grow with the hiring of Jimmy Liu as Director for the Center for NanoScience (CNS) and that some faculty members will be more research active as members of CNS research teams. The Department took advantage of an open faculty position to hire a computation/experimental physicist (Eric Majzoub) who does research on hydrogen fuel cells and who will fit nicely into one of the focus areas of the CNS.

**Sociology:** The tenured faculty members have active research programs. Teresa Guess is building her research program in race and class issues. Nancy Shields focuses on child development and community violence in South Africa and the U.S. Chikako Usui continues her research in comparative social and public policy and political economy.

## II. Teaching

The College continues its tradition of high quality teaching by faculty who incorporate research into their teaching. In the last few years the College has strongly promoted the use of technology and innovations in teaching. In both mathematics and in foreign languages, faculty in the College have made major changes in teaching that use state of the art technology to promote student learning. In College Algebra we have seen an increase in student success from 55% to about 75% in the last three years. With the move of developmental math to the College in the coming year, we anticipate using technology to increase student success in beginning and intermediate algebra. In the coming year, French classes will incorporate the innovations that were piloted last year in introductory Spanish courses, including a strong emphasis on oral proficiency for students studying at all levels of a foreign language. Faculty are encouraged to consider seriously student engagement and to use the technological resources provided by the campus, especially MyGateway, to increase student collaboration and student engagement. Students in the College are now advised in their home departments, improving the quality of advising and increasing student interactions with faculty. A complete description of teaching-related activities and issues for each department is provided in the departmental reports

that are available on the Sharepoint web site in Academic Affairs. We provide here a summary of some key teaching issues.

## **A. Student Learning**

### **1. Evidence that graduates have met the learning outcomes.**

**Anthropology:** 25 students completed Senior Seminar and Senior Seminar Tutorial, including completion of the senior thesis, with grades of B- or higher.

**Biology:** The most recent major field test results show that half of their graduating seniors (15 of 30) scored at or above the 50<sup>th</sup> percentile, and 27% scored at or above the 80<sup>th</sup> percentile. Instructors submit course syllabi at the end of every semester, and these are forwarded to the Dean of Arts and Sciences for his review.

**Biochemistry & Biotechnology:** Students in the program take the ACAT test with areas that include biochemistry, cell physiology, cellular biology and genetics. The results of the most recent test of 10 students were that the students scored in the 63-79<sup>th</sup> percentile in the four areas, but scored in the 96<sup>th</sup> percentile overall among all students who took the test in all 4 areas. Three of the 10 students scored in the 99<sup>th</sup> percentile on overall performance and the lowest student scored in the 74<sup>th</sup> percentile in overall performance. The weakest area of student performance was cell physiology (a course that is not taught at UMSL) and the strongest was in cellular biology.

**Chemistry & Biochemistry:** Chemistry students take the MFAT. 40% of the students scored above the 50% tile and 20 scored above the 80% tile. The sub scores in each category (physical, organic, inorganic, and analytical) suggest that the students are equally well prepared in all four areas.

**Criminology & Criminal Justice:** Data from the Educational Testing Service show that graduating seniors scored very well on the Major Field Test in Criminal Justice. Seniors had an average score on the last test of 162, which places them in the 65<sup>th</sup> percentile of participating seniors nationwide, with 42% performing at or above the 80<sup>th</sup> percentile. The students' average score places their department in the 90<sup>th</sup> percentile of all participating departments. The success of MA and PhD in meeting learning outcomes is monitored through course grades. PhD students take a comprehensive examination prior to advancing to candidacy that provides an opportunity to ensure that they have met learning objectives.

**Economics:** Lea Kosnik won the Gitner Teaching Award. The Department does not, as yet, have specific evidence that lines up with the stated learning objectives. It is in the process of: 1) Implementing an assessment at the graduate level, 2) Replacing the standardized exam with one designed to account for the stated objectives and that can be graded to find out precisely what problems related to specific topics must be addressed,



3) Replacing the teaching evaluation with a new one that comports with their stated learning objectives and controls for teacher difficulty so as to combat grade inflation.

**English:** Field tests taken by graduating seniors indicate that students have met the learning outcomes in the major.

**History:** All graduates of the History Department – B.A. and B.S. in Social Studies – complete the Senior Seminar and produce a significant piece of original scholarship. History students have been active participants in the Undergraduate Research Symposium in which they share their work the UM-St. Louis community.

**Mathematics & Computer Science:** Undergraduates take the Major Field Test. Their scores last year are as follows: 8 out of 18 graduating math majors passed at the 50<sup>th</sup> national percentile. 9 out of 25 graduating computer science majors passed at the 50<sup>th</sup> national percentile.

**Political Science:** Professor Jean-Germain Gros won the Chancellor's Award for Excellence in Teaching. Seniors take a capstone course in which seminar papers will be evaluated by an independent outside evaluator this summer. Last year's evaluations contained useful comments for the faculty who taught those seminars.

**Psychology:** In addition to grades, the Psychology Department uses the ETS Major Field Test (MFT) to evaluate how well their graduates have met their learning outcomes. In Spring 2007, 35% of the students scored above the 50th percentile with 10% scoring above the 80th percentile. For a group of 10 students who took a capstone class that reviewed principles of psychology prior to offering the test, 7 students scored above the 50th percentile with 3 scoring above the 80th percentile. Faculty use student performance on tests to determine what material needs to be reviewed in class before the final exam is administered.

**Physics and Astronomy:** Students taking the Major Field Test in physics scored at or above the national average. Two Ph.D. students successfully defended their dissertations. Five M.S. students passed their oral exit exams, including two with thesis. About 50% of B.S. Physics graduates are pursuing an advanced degree.

**Sociology:** Results from the ETS major field exam in FS2006 indicate that most students scored above the 50<sup>th</sup> percentile and 15% scored above the 80<sup>th</sup> percentile. Graduates did particularly well in the areas of deviance and social problems, multiculturalism, and globalization. They are, of course, somewhat weaker in areas the Department does not teach, including demography. The degree program emphasizes mastery of the latest technology tools and research skills using SPSS.

**2. How faculty used program or course-level assessment data or teaching evaluation (including midterm) data and NSSE to change their course.**

**Anthropology:** The telecourse/online course coordinator used mid-semester data to assess and change the new online course, 1035, ultimately offering extra credit. Based on department discussion, it was decided to restructure Senior Seminar in hopes that the final thesis would be closer to a publishable document. Teaching evaluation data were considered in the re-organization of theory courses described above.

**Biochemistry & Biotechnology:** Faculty in the program believe that students must learn to work collaboratively on projects, particularly in laboratory situations. Several faculty in the program promote student engagement both inside the classroom and outside of class by assigning group projects. The faculty in the program know about and use many of the technologies available on campus to promote student engagement and collaborative learning. NSSE results, student evaluations and the exit exam results are used as the basis for evaluation of possible changes in courses.

**Biology:** All courses, including labs, are evaluated by means of a questionnaire, and the average score and anonymous comments are available for instructors' use to assess their effectiveness and make appropriate adjustments as needed. In response to NSSE concerns about student retention, many Biology instructors have switched from a straight lecture format to a classroom format that mixes lecture, discussion, and peer group activities. Two instructors have incorporated student response systems ("clickers") to their instruction of large enrollment courses.

**Chemistry & Biochemistry:** Instructors have used clickers to increase student engagement, attendance and participation. They have gone to a "workshop format" in introductory chemistry discussion sections towards improving student engagement. Keith Stine added the exam preparation workshops in place of passive office hours. He reports that "it turned out to be enjoyable to sit with the students and watch them work on problems, even though it was almost always the 'A' students who showed up. None of the students who attended earned less than a 'B'." Wes Harris has pioneered the use of the "live Classroom" for graduate level courses where students often have trouble getting away from work or are traveling.

**Criminology & Criminal Justice:** Several faculty solicit anonymous mid-semester feedback from their students and use data from this exercise to address outstanding concerns. Faculty regularly review course evaluations and make changes in light of them, though those changes are seldom discussed with the chair or at faculty meetings. Departmental syllabi indicate that many instructors update their courses very regularly, at least in part due to student feedback.

**Economics:** Several faculty (e.g., Winkler, Speicher, Kosnik, among others) increase student engagement through having small groups of students do in-class exercises.

**English:** Information from course-level assessment data and teaching evaluations has led faculty to adjust writing assignments (term papers, research papers) so as to maximize student learning. For example, in lieu of a single, final term paper, faculty have required shorter papers during the semester to ensure that students' writing and critical-thinking

skills are given appropriate attention throughout their 16-week learning experience in a given class.

**History:** The chair interviews all Senior Seminar students and takes their comments back to the faculty. This year the students expressed their sense that more original research activities needed to be incorporated into the Upper Division courses in order to prepare them for Senior Seminar. The faculty require substantial research papers in Upper Division courses and will be encouraged to demand more rigorous primary research in these courses.

**Mathematics & Computer Science:** In a number of courses, 1030, 1035, 1100, 1105, 1800, faculty actively use technology. In several upper level and graduate courses, group work and online homework discussion groups are being tried. These approaches arise out of concerns to improve student participation.

**Psychology:** Junior faculty are assigned a mentor who makes class observations and assists faculty with development of syllabi, lectures, and tests. Faculty have addressed the fundamental issue raised by the NSSE, namely student engagement, by establishing the Undergraduate Advising office supervised by Siciliani and by increasing student involvement in research.

**Physics and Astronomy:** A task force was formed to address complaints about the introductory physics labs. As a result, new labs are being designed and the lab manuals rewritten. Based on the material covered by the Major Field Test, some topics were dropped from the calculus-based physics courses while others were added. A change to the curriculum was made to allow students in the General and Engineering Physics Options to take computer science electives at the 2000 level. They also specified Linear Algebra (M2450) as a required course in the Engineering Physics Option.

**Sociology:** The faculty have incorporated more critical thinking projects organized in small groups, writing assignments, and research papers (in upper division courses). In addition, course evaluations are used to improve teaching, including the continuous updating of the syllabi and incorporation of group projects, discussion sessions, etc

**3. Evidence that course requirements are intellectually rigorous and require student research and/or creative expression and that a graduate program is more rigorous than the undergraduate program (if applicable).**

**Anthropology:** The instructor of Senior Seminar, Donna Hart, felt that the process of doing original research was so challenging to the students that the semester was very emotionally difficult for almost all of them (and her) because of self-doubts, resistance, and sometimes hostility. However, the public evaluation of the senior thesis presentations and the grades jointly assigned by her and the second reader, almost all of which were Bs or As, indicated a general department assessment that the performance levels of the students were high. Their qualitative course evaluations ask whether

students felt the level of difficulty of the course was appropriate. The vast majority say “appropriate.”

**Biochemistry & Biotechnology:** At the heart of the Biochemistry & Biotechnology program are the lab courses that require major projects, reports and student presentations, particularly at the senior level. These courses and some of the senior level lecture courses require significant student writing including, in some cases, the reading and evaluation of original literature. Graduate level courses typically require even more analysis, critical thinking and writing than the senior level courses. Some students in the M.S. program do original research with a faculty member and write a thesis that is presented to and evaluated by faculty in the program.

**Biology:** The Department of Biology offers B.A., B.S., M.S., and Ph.D. degree programs. Graduate-level courses generally require multiple undergraduate courses as pre-requisites. The graduate courses are also generally smaller in size with a higher level of instructor-student interaction than in most undergraduate courses. The subject areas of graduate courses are narrower than for undergraduate courses, and those subject areas are examined in greater depth. Professors’ expectations for graduate student work are considerably higher than for undergraduate students.

**Chemistry & Biochemistry:** In most cases, the MS/PhD courses have undergraduate pre-requisites and the basic knowledge learned in the undergraduate courses is taken to a higher level. Several of the graduate courses are focused on narrow subject matter and the material comes from recently published primary literature in peer-reviewed journals and not an established text book.

**Criminology & Criminal Justice:** The department has developed a written set of learning expectations/competencies/outcomes for the program and each course is designed to address one or more of them. Most upper division courses require student research and writing, and all require critical thinking. MA courses can be distinguished from undergraduate courses by the facts that they require more reading, place far greater emphasis on discussion, and universally require more writing and/or independent research.

**Economics:** At the undergraduate level, all students must take either Economics 4100 (a B.S. requirement) or Economics 3800 (a B.A. requirement). Both courses require substantial papers. Moreover, virtually all courses after intermediate theory require some kind of a paper, many a very substantial one. At the graduate level, all students must take Economics 5001, which requires a very difficult writing assignment – the exposition of an original argument in the form of an Op-Ed dealing with a topic of relevance to micro theory. All students must also take Economics 5100 (Econometrics) which requires a substantial and original empirical paper.

**English:** With few exceptions, all English courses require research papers or creative writing assignments. Evidence that the master’s program is more rigorous and intellectually challenging than the undergraduate program is found in the former courses’

syllabi, the majority of which indicate that students have extensive reading lists that supplement course material and that students must complete lengthier essays that argue more sophisticated theses and complex ideas.

**Mathematics & Computer Science:** Courses proceed in sequences, where a prior course is a pre-requisite for enrollment in a later course. Most courses require creative expression as students try to solve problems, prove theorems, or write programs. Their graduate courses usually have several undergraduate courses as pre-requisites, and hence are at a greater level of depth.

**Political Science:** The Department Chair reviews syllabi to ensure that there is a writing requirement and appropriate reading for the course level. Graduate courses require significantly more reading and writing than do undergraduate courses.

**Psychology:** Several courses involve student research as part of the course requirements. Faculty judgment determines if course content is rigorous enough, including determining what distinguishes an undergraduate course from a graduate course.

**Physics and Astronomy:** A review of the syllabi and textbooks for the graduate courses shows that they cover more advanced topics than the undergraduate courses. Graduate students are required to make a presentation at Journal Club each year on a research topic of general interest and these presentations have been of a high quality. A growing number of M.S. students are writing theses with two in 2006 and four more expected in summer 2007.

**Sociology:** Sociology courses at the 1000 to 3000 levels are designed to engage students in small research activities via critical thinking projects and small group activities. These projects have students explore theoretical concepts and methodological processes through observation and interviews. Sociology courses at the 4000 level are designed to engage students in research activities and writing short research papers. A capstone course, Sociological Writing, required students to conduct mini-research papers linking contemporary events to sociological concepts/theories and improve their writing skills to the level appropriate for submissions to undergraduate paper competitions. At the graduate level, students are expected to conduct their own research that is guided by research hypotheses, appropriate research methodology in data collection, and analysis.

## **B. Describe the quality of dissertation/thesis supervision.**

**Biology:** Dissertations and theses are overseen primarily by a graduate student's major advisor, with periodic review and final assessment of acceptability by an advisory committee consisting of the major advisor, additional members of the Department's faculty, and, for dissertations, a committee member from outside the Department. In previous years the Graduate Committee held an annual individual progress assessment for each doctoral student. That assessment was not held in the past two years and should be reinstated.

**Biochemistry & Biotechnology:** Students in the thesis M.S. program are supervised by a faculty member who reviews each student's progress continually. The students also have a thesis committee that reviews each student's progress annually.

**Chemistry & Biochemistry:** All graduate students are assessed annually at a meeting of the entire faculty. The complete record of each student is examined and the research advisors report on the student's progress. This process ensures that problems with supervision or a pattern of poorly performing students under a particular advisor will be revealed.

**Criminology & Criminal Justice:** The quality of dissertation supervision is evident from the success of the PhD students in finishing their dissertations and competing effectively on the job market. Since last year's report, three additional students have completed their PhDs; two have taken tenure-track jobs (UNC-Wilmington and Michigan State University) while the third has chosen to remain here as a full-time Associate Teaching Professor.

**English:** Master's students are not required to complete a thesis, but this past year, the M.F.A. program required a thesis for all its students. The supervision of these writing projects is handled by the Director of the M.F.A. program, who oversees the quality of the theses.

**History:** The M.A. in History and in Museum Studies focuses substantially on original, primary research. In contrast, B.A. and B.S. coursework emphasizes secondary reading, lectures, discussions, and an introduction to primary research through the required senior seminar. M.A. theses are reviewed by a committee of historians or scholars in related fields

**Mathematics & Computer Science:** PhD faculty members who supervise dissertations are active research faculty with current publications in the field. Students work on the latest ideas arising from this research. They follow graduate school guidelines for forming dissertation committees, presenting and defending a dissertation proposal, and presenting the thesis. Ideally, the Department would like each PhD student to publish some of the thesis results in a professional venue.

**Political Science:** If a student found fault with the dissertation supervisor, the graduate director or the chair would hear of it. There might be committee changes or a talk with the supervisor. This has happened very seldom. The Department has a strong cadre of dissertation supervisors who have seen that all types of students matriculated.

**Psychology:** Each graduate program has a handbook that spells out the roles and responsibilities of students and faculty, including the supervision of student dissertations and theses.

**Physics and Astronomy:** The quality is high as measured by the publication of the dissertation research in respected professional journals.

**Sociology:** The entire thesis committee is involved in development and completion of the MA thesis. Typically this is done in several meetings or working sessions between the candidate and the thesis committee. This procedure has been used to ensure sufficient amount of supervision and agreements between the candidate and the thesis committee along the way and to avoid situations where major revisions to the thesis are required at the final oral examination.

### **C. Significant community engagement/service learning activities this year.**

**Anthropology:** James Daugherty was named A&S Student Marshal for Spring Commencement for his work helping disadvantaged minorities as a court interpreter in Spanish. Patti Wright and her students were recognized in a “volunteer appreciation dinner” by the City of Chesterfield for their work in helping to create the website for the MAC (Missouri’s Ancient Cultures) Quest program to help 4<sup>th</sup>-grade teachers teach students about Missouri’s ancient cultures, conducting a workshop with Riverbend East Elementary School students (broadcast on HEC), and helping to stabilize the millennium-old Gateway Mound.

**Biology:** The MOSTEP program continues to be one of the Department’s most significant community engagement/service learning activities. This program places Biology graduate students into the science classrooms of several area high schools, including schools with high percentages of students from groups typically underrepresented in the sciences. It is also noteworthy that the Department has formal liaisons, by virtue of three Des Lee Professorships, with the Missouri Botanical Garden, St. Louis Zoo, and Donald Danforth Plant Science Center – three outstanding St. Louis institutions.

**Criminology & Criminal Justice:** The department’s most significant service learning activity was Jody Miller’s ongoing Sri Lanka Tsunami Reconstruction Project, which involves students in activities related to fund raising for this worthy undertaking. The project now has evolved into Operation Teardrop and involves students not only from criminology and criminal justice, but from other disciplines across the campus.

**Economics:** William Rogers, whose research is in urban planning and land use, advised the City of Creve Coeur on land use issues

**English:** As in previous years and as part of its Writing Certificate Program, the English department provides student interns in businesses, not-for-profit groups, and other organizations.

**History:** Public lectures were given by J. Frederic Fausz, Louis Gerteis, Andrew Hurley, Minsoo Kang, Carlos Schwantes and Laura Westhoff. These faculty members are particularly active as board members and advisors to community organizations. Many

History faculty participate in the Regional History Day competition sponsored by the Department on the UM-St. Louis campus. The James Neal Primm Lecture in History is offered annually to the public at the Mercantile Library.

**Mathematics & Computer Science:** Faculty directed student research in the 2006 STARS program last summer. One student working with Uday Chakraborty later entered his research project for the INTEL Science Talent contest and reached the set of 40 finalists.

**Political Science:** The fifth annual Political Science Academy Public Affairs Lecture was held with Jacob Hacker of Yale. A number of faculty also appeared in print and on the air. The Political Science Academy also met 4 times with St. Louis City Mayor Francis Slay and St. Louis County Executive Charlie Dooley among the speakers.

**Psychology:** Students in Psychology 2295, Field Placement, work with community agencies in a “quasi-clinical” manner (e.g., assisting victims of crime). In addition, Ann Steffen has worked with several doctoral students in a project in Afton with senior citizens. Therese Macan and several doctoral students in I/O psychology have worked with several corporations on service learning projects. Doctoral students in clinical psychology and I/O psychology do part-time clerkships with businesses or mental health agencies in their third and fourth years in the program. Finally, all clinical psychology doctoral students complete a year long internship (40 hours per week) during their last year in the program.

**Physics and Astronomy** As part of her NSF CAREER grant, Bahar worked with physics students at Normandy H.S. and hosted them on campus for several biophysics projects such as an examination (and dissection) of the bovine eye. She also mentored a high school student who received a Solutia Award for Excellence in Research. About 500 5<sup>th</sup> grade students visited the UMSL Planetarium to learn about motions in the night sky and how comets are made in a program funded by the NASA/Missouri Space Grant Consortium (Wilking, PI). The Richard D. Schwartz Observatory hosted about 500 visitors at the monthly public Open Houses (Wilking, Gibb). General interest talks about nanotechnology were given by Fraundorf for the St. Clair County Saturday Scholars, the Madison County Saturday Scholars, and the Academy of Science-St. Louis’ Science Seminar Series at the St. Louis Zoo.

**Sociology:** Teresa Guess taught Introduction to Sociology on campus to students from Vashon High School. In addition, the Department offers the minor in sociology to students at Mineral Area College and taught one course per semester for the Mineral Area College.

**D. Significant student accomplishments (e.g., publications that include students, presentations by students, prizes or awards).**



**Anthropology:** Student Fulbright awards – Lana Kerker and James Daugherty. 2007 Undergraduate Research Day at the Capitol - Elizabeth Rudloff-Wolk, Angela Woike, Chris Guilford

**Biochemistry & Biotechnology:** David Wilson received the Monsanto Scholarship in Biochemistry & Biotechnology. Ten students presented their research at the Undergraduate Research Symposium in the spring of 2007.

**Biology:** Patrick Osborne, an Adjunct Associate Professor of Biology, was awarded the St. Louis Academy of Sciences “Educator of the Year Award.” Many of the Department’s faculty members publish research that has been co-authored by students, including undergraduate students. Faculty also reported 42 presentations at conferences, and most of these would have included (or been led by) student co-authors, including undergraduate students. Twenty-eight of those presentations were at international conferences. Additional presentations at scientific conferences, including at international conferences, have been given by students (mostly graduate students), but because these presentations did not have faculty co-authors, it is not possible to give the number of such presentations.

**Criminology & Criminal Justice:** Chris Melde won the Midwest Criminal Justice Association’s Best Student Paper Award. His paper, *Social Disorganization and Violent Crime in Rural Appalachia*, was published in the *Journal of Crime and Justice*. Chris Melde and Karin Tusinski co-authored a paper with faculty member Finn Esbensen entitled, *Addressing Program Fidelity with On-Site Observations and Program Provider Descriptions of Program Delivery*, which was published in *Evaluation Review*. Karin Tusinski co-authored a paper with faculty member Finn Esbensen, *Youth Gangs in the Print Media*, which was published in the *Journal of Criminal Justice and Popular Culture*.

**Economics:** Undergraduate research symposium participants were: Amy Lampe. Graduate research symposium: Vikram Kumar. Awards: Veblen - Travis Box; Kuznets: Undergraduate – Jaime Brown, Graduate – Daniel Gleitz; Clayton Scholarship: Undergraduate – Joshua Leesman, Graduate – Juan Fung; Levin Scholarship: Alan Medina. Internships: Travis Box – TIAA-CREF; Lauren Bloch – Center for Entrepreneurship and Economic Education, Gaurav Tiwari – Council on Foreign Relations. Eight students were accepted in Ph.D. programs across the country at institutions that included Cornell, Georgetown University and several state universities.

**English:** Inda Schaenen (M.F.A. student) secured a three-book contract with Brown Barn Books for a series of children’s books.

**History:** Student members of the History Honorary Society, Phi Alpha Theta, launched an online journal of student publications that is accessible on the Department website. Increased History involvement in the Undergraduate Research Symposium is the most significant change in the History program in 2006-07.

**IWGS:** Student Trailblazer awards went to: Olivia Ayes. Writing Award Winners: Julia Murphy, Laura Fleming, Capuchina Bianka Taylor. Six students received IWGS Scholarships. Julie Strassmann, their 2006-07 TA, also served as co-editor of their spring 07 newsletter and wrote two articles for the newsletter. Asifa Khurshid has worked as a volunteer to redesign and update the IWGS website.

**Mathematics & Computer Science:** Several papers submitted to journals/conferences were written jointly by faculty and graduate students. Four of their graduating BS/MA students were admitted to Ph.D. programs (two in their own department and two to programs at least at the level of quality of Washington University.)

**Political Science:** The Department awarded six students scholarships ranging from \$500 to \$2000. Professors Jones and Kimball had student co-authors, Laura Wiedlocher and Cassie Gross, respectively.

**Psychology:** Robert Calsyn and Therese Macan coauthored 5 research articles with 4 undergraduates in psychology. Eight undergraduates presented research at national conferences with Michael Griffin, Brian Vandenberg, Samuel Marwit, Steve Bruce, Matthew Kliethermes, Kamila White, Ann Steffan, Miles Patterson, and Mark Tubbs.

**Physics and Astronomy:** Undergraduate physics major Ricardo Garcia was a co-author with Frank Moss on the paper selected for a press release and press conference at the March 2007 American Physical Society meeting. Six physics majors made research presentations at the UMSL Undergraduate Research Symposium in April 2006 (Braden, Downs, Pastorius, Pillarich, Stangler, & Volkert). Four undergraduate physics students and two graduate students made research presentations at the 15<sup>th</sup> annual meeting of the NASA/Missouri Space Grant consortium held on the UMSL campus in April 2006. Nine physics graduate students presented research posters at the 3<sup>rd</sup> Annual Meeting of the UMSL/UMR Physics Departments in March 2007. Graduate students Daisuke Takeshita won first prize and Kari Van Brunt won third prize in the poster competition. Four graduate students and one undergraduate student were co-authors on refereed publications (Takeshita, Van Brunt, Hunton, Carlson, & Fanetti) published in this academic year. Graduate students Jinfeng Wang, Martin Rose, and Eric Mandell made oral presentations at the August 2006 meeting of the Microscope Society of America.

**Sociology:** Mary Ann Coker won second prize in student paper competitions at the Annual Meetings of the Missouri Sociological Society in October 2006. Kelley Harris, a graduate student, presented a paper at Midwest Sociological Society in April 2007. Graduate students in the Department of Sociology launched *Verstehen*, a student-run social science journal this past year. Thirteen students received departmental honors or scholarships.

**E. Changes to programs, courses, assessments, and/or program descriptions and outcome statements.**

**Anthropology:** The Department began the merger with the Department of Foreign Languages and Literatures with the idea that it will allow a much greater diversity of culture area offerings, strengthen the international focus, and increase Study Abroad opportunities for their students. Faculty developed and offered their first two online courses through CE, re-organized the major curriculum substantially and added prerequisites to courses to create a more systematic sequence. The Department developed a written Exit Interview that will be administered to the Senior Seminar students in an attempt to gather more information about how they see the major.

**Biochemistry & Biotechnology:** Several biology and chemistry courses were added to the electives for the Biochemistry & Biotechnology program. Assessment of the program was enhanced by the addition of exit interviews of graduating seniors with 7/9 students responding after three e-mail requests for interviews. These interviews will be used consider changes to the program next year.

**Biology:** The Department changed the catalog description of the B.A. and B.S. degrees in Biology degree requirements to specify that students must earn a minimum 2.0 grade point in all required core courses in Biology as well as maintain an overall 2.0 grade point average. The Department submitted course description changes for several courses: Molecular Biology of the Cell, Advanced Molecular Biology of the Cell, Plant Biology and Biotechnology, Advanced Plant Biology and Biotechnology, and Application of Geographic Information Systems. These changes were made to ensure that course content remains current with regard to increasing knowledge and state-of-the-art technologies.

**Chemistry & Biochemistry:** As an ACS accredited program the Department has very little room to alter the curriculum, which has evolved under the guidance of ACS committee on professional training and covers all of the important subjects in chemistry and biochemistry.

**Criminology & Criminal Justice:** The Department substantially revised the curriculum in 2005, adding new courses, plus new writing and diversity requirements. Students surveyed this year were generally very satisfied with the program; the only major concern expressed was a desire that more courses be offered each semester, something that requires additional tenure-track lines, especially at the MA level.

**Economics:** The Department added two courses to address shortcomings in their coverage: Economics 3003: *Game Theory* and Economics 4510: *Public Choice*. It also rewrote the *Bulletin's* description of the 2+3 program to make it clearer.

**English:** The undergraduate curriculum will be modified to include emphasis areas in lieu of the current historical-literary areas. The faculty continue to work on incorporating a capstone course as an additional means of assessing outcomes.

**Political Science:** Changes were made to the title and content of a judicial politics class. Two classes cross-listed with IWGS had their titles changed, e.g., Women and Politics to Gender and Politics.

**Psychology:** Effective Fall 2006 all new Psychology majors had to take two new courses: Psychology 1000, Careers in Psychology and Psychology 4999, Integrated Psychology. Psychology 1000 (a one credit course) is designed to assist both majors and non-majors in deciding whether psychology is an appropriate major for students' career aspirations. Psychology 4999 is the capstone course designed to prepare students for the ETS Major Field Test (MFT) in Psychology which is the department exit exam. In addition, all new Psychology majors are required to choose at least one course from three major categories in psychology to ensure some breadth in psychology. They will compare the scores on the MFT of past students with future students to see if their curriculum changes effect student learning outcomes.

**Physics and Astronomy:** Beginning in May 2006, the Department administered an Exit Questionnaire to students graduating with a B.S. or B.A. The results were reviewed at a fall faculty meeting and no substantive changes were made to the program. After discussions among faculty members, a new textbook was adopted for the Physics 1011/1012 sequence (introductory physics for the life sciences) and the book is being phased in this summer.

**Sociology:** The department is working on restructuring of the program with a focus on urban community problems and an emphasis on research literacy and practical skills that have currency in the job market. As part of this initiative, the Department offered Sociology of Homeland Security in WS2007. The course was taught by a homeland security educator, Larry Irons. Students who successfully completed the course received certificates for the completion of homeland security course.

### III. Planning

#### E. Enrollments (on-campus, off-campus, on-line) compared to last year.

**Anthropology:** Enrolments were down slightly from the previous year.

**Biology:** Biology undergraduate enrollments are up, particularly in Cell and Molecular Biology and in the relatively new degree program in Biochemistry and Biotechnology, which is offered jointly with the Department of Chemistry and Biochemistry. The Department responded in several ways. It increased enrollment caps in many of the courses, added sections to courses such as Genetics and Microbiology Lab, and will offer Microbiology and Lab both semesters (rather than only one) in the coming academic year. It also reconfigured a pre-tenure faculty member into a non-tenure track, teaching-only position for courses in the CMB area. Each semester a number of adjunct faculty are hired to cover courses in all areas of the department, including special offerings of immunobiology for which there are no regular faculty members.

**Biochemistry & Biotechnology:** The program continues to grow rapidly with 91 undergraduate majors and 28 graduate majors. This has not come at the expense of Biology or Chemistry majors, whose numbers are stable.

**Chemistry & Biochemistry:** Enrollments are stable.

**Criminology & Criminal Justice:** This year's undergraduate enrollments both on and off campus were in line with those of recent years, as were MA enrollments.

**Economics:** Undergraduate on-campus no change. Graduate on-campus 56% increase (this is an aberration, not the beginning of a trend).

**English:** Enrollment at the undergraduate level remained similar to last year's; however, an approximate 15% increase in enrollment occurred at the graduate level, requiring the addition of more graduate seminars and a temporary lift in enrollment caps during this past year.

**History:** History enrollments, particularly at the M.A. level, continue to increase

**Mathematics & Computer Science:** The Department had much the same number of students enrolled last year and offered about the same number of sections.

**Political Science: Enrollments** are quite similar to those of the previous year.

**Psychology:** This year the Department fully implemented the degree completion program at St. Charles Community College (SCCC). Enrollment in courses offered at SCCC averaged 25 students per course. Enrollments in other off campus courses remained stable. The Psychology Department currently has no on-line courses, although one course is offered as a hybrid course. They also offer four video courses each semester.

**Physics and Astronomy:** Enrollments in physics courses were flat with the exception of the introductory physics course for the life sciences which continues to grow. Geology enrollments jumped since they began offering geology during the day (FS2006) and offered a "lecture-only" option.

**Sociology: Enrollments** are quite similar to last year.

#### **F. New programs approved or in progress.**

**Anthropology:** The two minors in Cultural Anthropology and Archaeology were consolidated into one minor with a choice of three tracks effective FS07.

**Biochemistry & Biotechnology:** A proposal for a Ph.D. in Biochemistry & Biotechnology is in the planning stages.

**Chemistry & Biochemistry:** Wes Harris, as Director of the BCBT program, is working on a proposal for a Ph.D. degree in BCBT. A committee has been formed (Jim O'Brien, Chair) to develop a proposal for a Bachelors degree in Forensic Science.

**Economics:** A Center for Forensic Economics is in the developmental stage.

**History:** The M.A. program has been revised and a new Ph.D. program has been proposed and approved at the campus level.

**Sociology:** Preparations are currently underway for offering a multi-disciplinary undergraduate certificate in Disasters and Urban Community Organization.

**G. Programs, tracks, or courses have been considered for elimination or eliminated this year.**

**Anthropology:** The mid-level theory course, Anthropology 3202, was considered for elimination as a requirement for the major. Instead, they decided to reorganize the theory courses and shift material from the capstone theory course into it, so that students could concentrate on theory relevant to their theses in the capstone course.

**Criminology & Criminal Justice:** The White-Collar Crime course was considered for elimination because there is no one available to teach it; however, the Department ultimately decided to keep it because it represents an important and expanding area of criminology and criminal justice.

**Economics:** The Managerial Certificate was eliminated since it had no enrollment for 10 years. Eliminated Courses: Economics 4610 because much of the material that is normally taught in this course would be covered in a new course (Economics 4510); Economics 3620 and 5020 were never taught for lack of faculty expertise.

**English:** The faculty will continue its discussion about eliminating English 2810, Traditional Grammar, as a requirement for the major.

**History:** Old fields of study at the M.A. level are being phased out and new fields have been put forward.

**Political Science:** Two classes were removed from the required list and made electives. They offered a class in qualitative methods for the first time, something students had requested.

**Psychology:** All specialization areas in the undergraduate degree were eliminated. The old specializations did not lead directly to any specific career in psychology; thus they were of little practical value to the student. Given the additional requirements that the Department was imposing on majors, the faculty decided it was prudent to eliminate the specialization areas.

**Physics and Astronomy:** A graduate certificate in nanotechnology is under consideration.

**H. Plans to sustain or increase enrollments, including plans for courses and programs offered at other sites, during winter intersession, or online.**

**Anthropology:** The Department offered two online courses experimentally in WS07, will offer them again in the Summer, and will expand to three in FS07. Vicki Rapti is taking part in a cooperative program with Simon Fraser University that may provide online course content in Greek Studies to UMSL in the future. Archaeological Artifact Analysis will be offered again in Winter Intersession and Sports, Ritual and Death: The Archaeology of Greek Myth, will be made available at a popular time (9:30am) in FS07. Following the merger with Foreign Languages, the new Department will seek to recruit more double majors and develop synergy with through cross-listing courses and through English-language courses with a Foreign Language module.

**Biochemistry & Biotechnology:** The program is growing so rapidly that it is straining the current faculty in Biology and to some extent Chemistry. Further growth of this program will require additional resources for faculty lines and GTAs.

**Biology:** The primary plan to sustain enrollments is to take steps that are necessary to ensure that undergraduate majors have access to the courses that they need to move in a timely fashion toward completion of their degrees. This has been a major motivator for offering courses via part-time and adjunct faculty. The Department is significantly understaffed in molecular biology with regard to its teaching needs as evidenced by student demand for their courses. The Department maintains an up-to-date 3-year course plan, which enables both faculty and students to plan their schedules in advance.

**Chemistry & Biochemistry:** The Department works on recruiting undergraduates through interactions with high schools and community colleges (magic shows, career days, open houses, etc) and graduate students through mailings and seminars at four schools.

**Criminology & Criminal Justice:** Faculty give guest lectures in criminal justice and criminology courses at local community colleges to promote the program. The Department will offer courses at Wildwood this coming fall, a number of them online. It will also admit a much larger cohort of highly qualified applicants to the MA program.

**Economics:** The Department has a pizza party each semester for promising students to encourage them to consider choosing economics as their major and send top students a letter congratulating them on their performance and encouraging them to consider choosing economics as their major. They are offering new courses that are more likely to arouse interest in economics (Economics 3003: *Game Theory*) and have revised an existing course to appeal to a broader audience (Economics 4160: *Geospatial Analysis in the Social Sciences*). They are offering courses at new times to give students more

options for scheduling (e.g., they are offering, for the first time, Economics 1001 on Fridays from 9:00 – 11:30). This summer they are bringing in two visiting professors and they plan to continue to bring in visiting faculty in future summers to provide courses not normally teach because of insufficient faculty or lack of expertise in the field.

**English:** The Department increased its on-line offerings in advanced composition, as well as outreach sites in South County. The department will offer courses at the new Wildwood campus.

**History:** The History Department launched a cooperative M.A. program with Missouri Southern State University. This program is currently funded by a \$1,000,000 grant from the U.S. Department of Education administered by the Carthage, Missouri public school district.

**IWGS:** Plans to increase enrollment include getting the word out about their programs through recruiting efforts, including student class visits, advertisement of courses, campus-wide distribution of course schedules, creation and support of student clubs, and proposing that WGS 2102, the primary recruiting course, satisfies general studies and other requirements so that they will be able to offer more sections of this class.

**Mathematics & Computer Science:** The Department's main plan to increase enrollment is to improve the quality of instruction in this department and to enhance student learning and engagement. Engagement of undergraduates through calculus and programming competitions on campus (like the Andalaft competition) and off campus (like the Missouri MAA competition), involving them in tutoring activities in labs, publicizing the scholarships they have available for them, are some of the strategies employed.

**Psychology:** Undergraduate enrollments are high and the undergraduate program is one of the most successful on campus. While the Department would like to expand its successful undergraduate program in the long term, as the campus grows and its faculty increases, in the shorter term, it hopes to increase enrollments in graduate programs through providing more funding for GTAs.

**Physics and Astronomy:** The Department has doubled the physics offerings for summer school and nearly all sections are full. Liu is considering a winter intersession course in microscopy techniques. Their newest faculty member will develop a course in computational physics.

**Sociology:** Given the constraints of resources, the most effective way to sustain or increase enrollments is to diversify the Department's online courses. Additional online courses, along with the continuous innovations in the existing online course delivery, will increase enrollments. Teresa Guess and Chikako Usui are developing online courses through incentive funds made available from the College of Arts and Sciences.

#### **IV. Service**



Faculty in the College continue to serve in the departments, in the college, on the campus, the UM system and in the community. They contribute their knowledge and leadership skills to improve the university and the community. Most faculty also give generously of their time serving their professions as editors, reviewers, and members of service organizations within their professions. A complete description of service contributions for each department is provided in the department annual reports that are available on the Sharepoint web site in Academic Affairs. A summary of some key contributions follows.

**A. Major contributions made to faculty governance and other campus activities.**

**Anthropology:** Anthropology had 2 Faculty Senate members; 1 Athletics Committee Member, and faculty member served on 1 program review of the Center for Transportation Studies.

**Biology:** Biology had representatives on both the Senate (Thiel, Kellogg) and Inter-campus Faculty Council (Thiel). One faculty member (Granger) was primarily responsible for the initiation of a campus student-run radio station, “The U,” which went on the air this year.

**Chemistry & Biochemistry:** The Department had three active members of the senate (Barton, Corey, and Spilling). Several individuals are active on campus committees (see FAS service report).

**Criminology & Criminal Justice:** Richard Wright served as a member of the Senate Committee on Appointments, Tenure and Promotion. He also served as a member of the Intercampus Faculty Council and as a member of the UM Research Board. Further, he agreed to serve on an Ad Personam Committee for the Department of Anthropology and to chair a committee for the College of Nursing charged with undertaking five year reviews of faculty performance. David Klinger served on the Institutional Review Board for the Protection of Human Subjects. Several individuals are active on campus committees (see FAS service report).

**Economics:** Larry White was on the campus honorary degrees and awards committee.

**English:** Faculty served on committees at the college and campus level, including such Senate committees as Budget and Planning, and Tenure and Promotion.

**History:** Kevin Fernlund was appointed Executive Director of the Western History Association. Louis Gerteis was 2007 President of the Missouri Conference on History. Several members of the Department serve on boards of museums and community organizations. Several (see above) are active as public lecturers.

**IWGS:** IWGS Director, Kathy Gentile, served on the UMSL Task Force on Women, and was appointed as chair in spring 07. Farida Jalalzai served as the first faculty advisor to

The Sue Shear Institute for Women in Public Life. Nan Sweet was chosen as a 2007 Trailblazer for her work with women on campus and in the community.

**Mathematics & Computer Science:** Members of the Department served on about 11 extra-departmental campus committees and took part in one five-year review.

**Political Science:** E. Terrence Jones is a Senate member and chair of the Budget and Planning Committee. He is recipient of the C. Brice Rathchford Award. Several faculty served on five year review committees for other departments. Lana Stein was a member of the Equal Opportunity task force.

**Psychology:** Robert Calsyn, Brian Vandenberg, and Ann Steffen served as part of campus five year review teams. Rob Harris served on the Senate Committee for Administrator Evaluation and was a member of the CAS ad hoc Committee to review "Recommended Best Practices for Non-Tenure Track Faculty." George Taylor was a member of the UM Research Board. Therese Macan serves on the Express Script/UMSL Collaboration Task Force. Brian Vandenberg is a member of the University Senate.

**Physics and astronomy:** Bahar serves as Director for the Center for Neurodynamics and Liu for the Center for NanoScience. Feldman and Wilking serve on the Faculty Senate. Cheng was a member of the Senate ATP Committee and the Graduate Council. Wilking was Vice-President of the newly organized Sigma Xi chapter.

**Sociology:** The Department actively contributed to online course evaluations, development of newly enhanced technology classrooms and of e-portfolio system for the campus and a peer review software application for use in writing courses (across the curriculum). Faculty members were involved in university committees including the Faculty Senate/University Assembly Committee on Bylaws and Rules, Graduate Council, Committees on Committees, and Diversity Task Force.

## **B. Activities that promote the profession.**

**Anthropology:** A panel was jointly organized by Ashmore and Uhlmann for the annual meetings of the American Anthropological Association (AAA). Hart and Ashmore had an article on the homepage of the AAA. Susan Brownell on Selection Committee for the postgraduate grant of the International Olympic Committee, and also invited to speak at the IOC's World Forum on Sport, Culture and Education. Faculty reviewed journal and book manuscripts. An international conference was co-organized by Brownell and Cosmopoulos.

**Biology:** Several faculty (Hunt, Kellogg, Marquis) are on editorial committees for scientific journals. Several (Kellogg, Loiselle) are officers in scientific societies. Loiselle is Chairman of the Board of the Organization for Tropical Studies as well as an officer for several other societies. Several faculty members (Hunt, Kellogg, Loiselle, and Parker) served on National Science Foundation grant review panels. One faculty member (Bourne) returned to departmental activities following 2 years as a Program Office for the

National Science Foundation, and two faculty members (Blake, Loiselle) are currently on leave in service as Program Officers at NSF.

**Chemistry & Biochemistry:** Keith Stine is Chair elect of the St. Louis section of the American Chemical Society; Alexei Demchenko is a member-at-large on the committee for the Carbohydrate Division of the American Chemical Society; Lol Barton and Hal Harris are Directors for the St. Louis section ACS; Chris Spilling is the St. Louis representative to the Midwest regional meeting steering committee and was chair of the committee in 2006.

**Criminology & Criminal Justice:** Richard Wright serves as Editor of the *British Journal of Sociology*. Finn Esbensen is an Executive Counselor of the Western Society of Criminology. Eric Baumer serves as Vice President (and President-Elect) of the Association of Doctoral Programs in Criminology and Criminal Justice. Robert Bursik is President-Elect of the American Society of Criminology. David Curry is a member of the Committee on Ethical Considerations for Revisions to the US Department of Health and Human Services Regulations for Protection of Prisoners Involved in Research. Janet Lauritsen served as Executive Counselor of the American Society of Criminology and chaired the American Statistical Association's Committee on Law and Justice Statistics. David Klinger serves on the National Academy of Science's Committee for Assessment of the Bureau of Reclamation's Security Program. Beth Huebner chaired the American Society of Criminology's Division on Corrections and Sentencing's Student Paper Committee. She also serves as Corrections Area Chair for the American Society of Criminology's 2007 Program Committee.

**Economics:** Larry White supported the development and continues to support the operation of *Economic Journal Watch*, a new journal that exists to improve oversight of economic research. He is also on the board of the Association for Private Enterprise Education. Anne Winkler joined the editorial board of *Social Science Quarterly*. Tom Ireland is Associate Editor of *The Earnings Analyst* and a member of the board of the American Academy of Economic and Financial Experts.

**English:** Faculty participated in more than 50 conferences, readings, presentations, and other professional activities; approximately one-half of these were in the greater St. Louis area

**IWGS: Nan Sweet** serves on the board of *River Styx* literary magazine. Farida Jalalzai has been consulted on women leaders and has promoted women and politics as Sue Shear advisor. She is a reviewer for *Journal of Women, Politics, and Policy*. Deborah Cohen has attended and presented at many national and international conferences this past year and is an editor for *Theory and Society*.

**Mathematics & Computer Science:** Department faculty members served as editors for seven professional journals and took part in a number of program committees for conferences, as well as refereeing of manuscripts and reviews of articles.

**Psychology:** The following faculty members have notable professional service responsibilities. Jayne Stake serves as Editor of *Psychology of Women Quarterly*. Laurie Greco is Associate Editor of *Journal of Behavior Analysis of Sports, Fitness, Health, and Medicine*. Miles Patterson is on the editorial board of the *Journal of Nonverbal Behavior*. Ann Steffen is on the editorial board of the *Clinical Gerontologist*. Kamila White is consulting editor for the *Journal of Consulting and Clinical Psychology* and *Behavior Therapy* and served on the Committee on Research Agenda for the Association of Behavioral and Cognitive Therapies. Robert Paul served as a reviewer for several panels of the National Institutes of Health. Steven Bruce served on the Program Committee for the Anxiety Disorders Association of America.

**Physics and Astronomy:** Bahar is Co-Editor-in-Chief of the *Journal of Biological Physics* and Editor of *The Biological Physicist* newsletter. Handel is on the Editorial Board for Bentham Science Publishers, LTD. Liu is on the editorial board for the *Journal of Nanomaterials*. Moss is Associate Editor for the *International Journal of Bifurcation and Chaos* and the journal *Chaos*, and Founding and General Editor of the *Cambridge Non-Linear Science Series*. Fraundorf organized the Third Missouri Nanoalliance Meeting in October of 2006. Moss was the organizer, co-organizer, or member of the scientific advisory committee for eight international symposia or conferences. Wilking continued as an Executive Board member for the NASA/Missouri Space Grant Consortium.

**Sociology:** The Department of Sociology promoted the profession through organizing and participating in conferences, seminars and symposia both nationally and internationally (e.g., Japan, South Africa); publishing articles of sociological interest; cooperation with other professional associations abroad (e.g., South Africa); and providing professional services to promote high quality research (e.g., editorial board).

### **C. Activities that fulfill the university's land-grant mission with community service.**

**Anthropology:** Michael Cosmopoulos raised \$35,000 for a memorial lecture and \$200,000 for the endowment of the Greek Cultural Center; organized one international conference, five public lectures and one music concert. He also; did consulting for the St. Nicholas, Assumption, St. Constantine and St. Helen Greek Orthodox Churches. Margo Hurwicz raised funds for the Arthritis Foundation

**Biology:** Notable among community service and outreach activities is the Department's MO-STEP program, which places graduate students into the science classrooms of several area high schools. Several programs run by a Biology faculty member (Granger) bring pre-collegiate students to campus, including JSEHS and STARS. There have been several favorable articles in various news media that have reported research and training activities in the Department.

**Chemistry & Biochemistry** ACS Career day was organized on campus by department members.

**Criminology & Criminal Justice:** Beth Huebner served as a Research Consultant for Big Brothers/Big Sisters. Dave Curry served on the Community Advisory Board for MERS Goodwill Industries. Richard Rosenfeld worked closely with the Regional Commerce and Growth Association to counter media reports labeling St. Louis as the most violent city in America. Finn Esbensen organized the 6<sup>th</sup> Annual Youth Violence Prevention Conference, which attracted well in excess of 100 practitioners from the St. Louis area. David Klinger served on the Oral Promotion Review Board for the Florissant Police Department.

**Economics:** Susan Feigenbaum continues as chair of the Missouri Consolidated Health Plan. David Rose continues as President and CEO of the St. Louis Discussion Club.

**English:** Faculty members give readings and presentations of their published work in the St. Louis metropolitan area, including the Wednesday Club, which has contributed generously to their department and campus. Additionally, faculty donate their time to not-for-profit organizations (e.g., President of the Board of legal Advocates for Abused Women), and they have participated in such activities as judging creative works for area high schools' competitions in fiction and poetry writing.

**IWGS:** Nan Sweet continues to work with the women's poetry workshop, Loosely Identified. Farida Jalalzai has given talks to the community on women leaders. Kathleen Nigro has led a number of community book discussions and organizes the Read MOre project, which encourages all Missourians to read and discuss the same book.

**Political Science:** Baybeck and Jones are involved with activities regarding children. Stein is engaged in neighborhood organizations. Jones works with Leadership St. Louis and Focus St. Louis.

**Psychology:** The Psychology Department operates three mental health clinics: Community Psychological Service, the Center for Trauma Recovery, and Children's Advocacy Services of Greater St. Louis. Every year, these three clinics provide mental health services to hundreds of citizens in the St. Louis region on a sliding scale basis. Ann Steffen received the Kathleen O'Brien Lifetime Achievement Award from the St. Louis Alzheimer's Association for her research and service around issues of family care giving, was an active member of the HUD funded project on improving community services to the elderly in Afton, MO and is a board member of the St. Louis Breakthrough Coalition which focuses on services to older adults. Jerry Dunn is involved in the following community service activities: (1) Co-chair of the St. Louis Family and Community Partnership, (1) Member of the leadership council of the St. Louis Family Justice Center, (3) Local liaison of the National Childhood Traumatic Stress Network, and (4) Member of Board of Directors for Missouri KidsFirst.

**Physics and Astronomy:** Erika Gibb serves on the Board of Directors for the Alliance for Astronomy based in St. Charles, MO. In addition to the Planetarium program for local area 5<sup>th</sup> grade students, planetarium presentations were made for Discover UMSL, Gear-

Up, JSEHS, and Marquette H.S. (Wilking) Geology instructor Mike Fix is a volunteer and consultant for the Bollinger County Museum of Natural History.

**Sociology:** The Department of Sociology is interested in addressing issues among urban minority groups and immigrant neighborhoods.

## V. Economic Development

### A. Economic development activities.

**Anthropology:** Jay Rounds did pro-bono consulting for almost every museum in the St. Louis area - Missouri Botanical Garden, Missouri Historical Society, Champ Clark House, Jefferson Barracks Heritage Foundation, St. Louis Science Center, St. Louis Dept. of Public Services (on the planning for the Soldier's Memorial).

**Chemistry & Biochemistry:** Zhi Xu filed 5 invention disclosures, submitted two patents and one provisional patent. Royalty income from his license with Grace Co. is currently about \$80K per year. Licensees for a second patent are being sought. Wes Harris and Christopher Spilling continue to collaborate with scientists at the University of Kentucky. A patent application is being prepared by UK with joint assignment to UK and UMSL. Harris, Spilling and UK collaborators have founded a company called "Alkymos" to further develop the technology and seek additional funding for the research. James Bashkin continues to perform research at UMSL funded by his company NanoVir. UMSL has an equity stake in NanoVir and receives overhead funds from Bashkin's grants. NanoVir was just awarded a new NIH STTR grant to fund their research on anti viral compounds to treat HPV.

**Economics:** William Rogers testified before the Creve Coeur City Council on Urban Planning and Zoning issues.

**History:** The Virtual City Project (Gerteis and Hurley, c o-PIs) is currently funded by a three year National Leadership Grant in excess of \$700,000 from the Institute for Museum and Library Services for the purpose of developing a "tool kit" that will enable small museums to develop three dimensional display environments. This project holds the potential for economic development.

**Political Science:** E. Terrence Jones is a principal on a grant addressing development in Affton. Kenneth Thomas has been involved in O'Fallon.

**Psychology:** Psychology offers clerkships for I/O students with local corporations.

**Physics and Astronomy:** Electronics technician Wayne Garver collaborated with faculty in Optometry on three patents: two are provisional (Color Hue Test and Light Hypersensitivity Meter) and one is in negotiations for licensing (Visual Suppression Test). Phil Fraundorf made the resources available in the Microscope Image and

Spectroscopy Tech Lab to researchers from local industry and universities. In 2006 and 2007, the NASA/Missouri Space Grant Consortium is jointly funding a summer research internship with MEMC Electronic Materials in St. Peters, MO. Jimmy Liu was hired in August 2006 as the Director for the Center for NanoScience and is the coordinator for the UM System-wide nanoscience and nanotechnology network as well as developing closer ties with local industries.

## **VI. Continuous Improvement**

### **A. Progress in plans made after the last Five-Year Review.**

**Anthropology:** The Department has nearly doubled the number of majors from 58 to 91; their number of graduates more than doubled from 12 to 28 and retention rate seems to have improved. They made slight progress toward proposing an M.A. degree. No new faculty were added, but three positions were normalized as full-time tenure-track positions in the department.

**Biology:** The previous 5-year review was 4 years ago. Critical issues identified in that review were shortages of space, personnel, and funding. The incorporation of a laboratory transferred from Chemistry two years ago is still in progress; renovation will be completed in summer 2007 for occupancy in the fall. A laboratory renovation has been planned for a new faculty member (Zanne) who will be arriving in summer 2008. An absence of funding is the major impediment to moving ahead with lab renovations. The quality and ambience of the student environments affiliated with Biology were improved significantly in two areas. In Benton Hall, the Kent A. Tomazi Student Study Lounge was renovated in summer 2006. The renovation was made possible by a generous donation by George and Lois Tomazi. In the Research Building, comfortable and attractive seating was placed in wide, windowed hallways on the 3<sup>rd</sup> and 4<sup>th</sup> floors, funded by Vice Chancellor Schuster. These lounge areas are well-used by students for study and discussions between classes.

**Chemistry & Biochemistry:** The recommendation to increase the number of faculty has been accomplished. Since 2003, the faculty has increased from 14 to 17. They hired Eike Bauer, Mike Nichols, Chung Wong, Janet Wilking, Jimmy Liu (with CNS and Physics) and George Gokel (with CNS). As recommended, lab fees have been instituted and generate approximately \$24,000 per year. Also, political pressure has resulted in senate bill 389 which will provide \$28 million for the renovation of Stadler/Benton. The computer port charges for internet access are unfortunately still in place, as mandated by IT. With the increase in departmental grants, more Ph.D. students will be supported in the department in the next few years. Advising has been decentralized and responsibility rests with the Department and Colleges. Fewer problems have occurred as result. Salaries in the Department of Chemistry and Biochemistry remain extremely low although an important step to address this problem was taken for the coming year.

**Criminology & Criminal Justice:** At last Five-Year Review, the department saw a strong need to increase the size of the faculty, and to recruit highly qualified women and minority scholars. In 2001 they had one African-American and two women on the faculty. As of last year, they had two African-American scholars on the faculty, but now have lost them to other institutions, despite substantial counter offers. More positively, a Latino scholar was hired earlier this year and the Department has been very successful in hiring additional women scholars; two were hired earlier this year and from fall 2007 there will be six women on the faculty, accounting for nearly half of the tenure track faculty. Another recommendation was to raise PhD stipends to stay competitive with those offered at other top-ranked criminology and criminal justice programs; this was done. The Department has achieved some success in the recommendation to secure grants to support graduate students - notably the large grant from the National Institute of Justice received by Finn Esbensen during the past year.

**Economics:** The Department just completed a five year review. The previous five-year review was not focused on self-improvement but, rather, identifying strengths and weaknesses of departments and therefore giving administrators information for making future resource allocation decisions. The primary concerns raised by the previous five-year review were insufficient manpower and a growing gap between actual and market salaries, particular with respect to full professor rank. Progress on the alleviation of the first concern has not been good. Over the last ten years the department is down by 2.3 tenure track positions. The Department can barely cover classes as long as no one goes on sabbatical or leave. Progress on alleviation of the second issue – the salary gap – has not been good, either.

**English:** With the addition of a new Lecturer in Business Writing who serves as the liaison with the School of Business, the Department has made progress in improving the quality of instruction and the academic rigor of the composition courses for business students. Similarly, with the addition (fall 2006) of the new Writing Program Administrator, the Department's writing faculty have started to reshape the upper-level composition courses.

**History:** Significant progress has been made in program review and revision since the last Five Year Review. Notably the Department has refocused graduate fields and rewritten a Ph.D. proposal that was approved by the Senate.

**IWGS:** IWGS has made significant progress in building its programs since its Five-Year Review in spring 2005. The director, committees, and Governing Board have rewritten the bylaws and restructured the Governing Board so that IWGS is a more coherent, active, and efficient unit. IWGS now has 6 Core Faculty, 1 Associate Faculty (2 pending), and 26 Affiliate Faculty. Since fall 2005, IWGS has seen much more faculty involvement in committee work, board meetings and events. They have reestablished the faculty colloquium series and the IWGS Newsletter, which is now available on-line and in hard copy. To promote research and new course creation, they established the IWGS Small Grants program and have awarded 3 grants in spring 2006 and 5 grants in spring 2007. They reestablished the Advisory Board, this time as an active partner in



fundraising and community outreach. In spring 2006, they substantially revised the curriculum and the certificate programs. IWGS has sponsored many events and programs, often with the co-sponsorship of other units. In March 2007, Women's History Month, they organized The Art of Women's History, a day-long program of visual art, poetry, film, and music presentation by noted campus and community artists. This program received prominent coverage in *The Current*

**Mathematics & Computer Science:** Pursuing recommendations in the last Five-Year Review, the Department managed to hire a new math faculty member last year and almost hired one this spring. It has not been able to hire more CS faculty nor to increase the number of GTAs. The Department has created a three-year schedule of courses that students can see and use to plan their graduation timetable. This was a recommendation that was made to minimize the effects of teaching upper level and graduate courses with a skeletal staff. The Department has been actively redesigning the teaching of freshman courses. The departmental computer lab has been renovated, and a new instructional lab, the MTLC, has been created. It has not addressed 2+3 curricular issues, and is not pursuing any Graduate Certificates. The Spencer lecture continues to be a vibrant annual event. The recommendation of managing class sizes was successfully adopted and most class sizes are capped at 35, except for courses that make extensive use of technology. The PhD program has expanded to include a computer science option, which was a step in a direction recommended by the Five-Year Review.

**Political Science:** The five-year review was in progress at the time of the report.

**Psychology:** This year the Department conducted its Five Year Review. The external reviewer, Wally Borman praised the department's leadership, including the chair and the leaders of the doctoral programs and the directors of their three centers. He was very complimentary about the quality of their faculty and graduate students in all three of their specialty areas. He had the following recommendations: A. Increase the number of faculty in I/O and Behavioral Neuroscience. B. Increase the number and amount of stipends for graduate students. C. Try to improve the graduate program rankings. D. Continue to develop links between the three program areas. E. Seek internal and external funding for the two proposed centers: Center for Organizational Research and Application (COBA), and Center for Transdisciplinary Behavioral Science. Borman's recommendations are consistent with their plans as stated in their self-study. At the time of their last Five Year Review in 2002, they had lost three faculty members due to VERIP and other resignations. These three positions have now been reinstated. The Department has also totally revamped the undergraduate advising program, establishing an undergraduate advising office under the direction of Jennifer Siciliani. In addition, it has modified the curriculum substantially as described above.

**Physics and Astronomy:** Since the Self-Study, the Department has replaced three faculty members who retired in the three areas mentioned and hired a fourth in nanotechnology (Director of CNS). As retired faculty are replaced, external funding is increasing. The Department has not reached its target, but is two-thirds of the way there with a new faculty member coming in F2007 with DOE funding in hand. This was satisfied by the

hiring of Jimmy Liu as Director for CNS. Since the last Self-Study, the Department has rewritten its cooperative agreement with UMR Physics to receive credit for their Ph.D. degrees. There have had three joint meetings and plans are underway for a joint graduate course in materials characterization. Collaborations with Chemistry and Biochemistry will grow through CNS. There is unfortunately little growth in collaborations with Biology and the Center for Neurodynamics. Since the last Self-Study, Cheng and Leventhal have published upper-level physics textbooks in *Relativity and Cosmology* and *Topics in Atomic Physics*. The Department is just below the targets for M.S. and Ph.D. degrees with 5-year averages of 3.6 and 1.6, respectively. About 7 B.S./B.A. degrees are being conferred per year. The Physics Learning Center has been established and both teaching assistants and some professors have office hours there. Graduate recruiting talks have been given this past year at Truman State and Missouri State. The Department consistently participates in the campus' Graduate Fair. Faculty members were active giving public talks and talks for local area high school students.

**Sociology:** The Department has updated the department website and improved its effectiveness as a virtual department bulletin board. In 2004 the Department streamlined undergraduate and graduate advising strategies. With the use of the department website and email, it maintained contacts with the students and responded to their needs in a timelier manner. Results of student surveys conducted in February 2007 indicate that students gave higher scores to advising than did alumni, suggesting that the revised advising strategies may be working. Effectiveness of advising based on feedback from students and alumni will continue to be monitored. The Department instituted a monthly luncheon with pizza for sociology majors in 2005. It is fostering a sense of community and improving student-faculty interactions. The Department established a capstone course, Sociological Writing, and offered it in WS2006 and WS2007. To re-establish communications with the alumni, the Department published and mailed *Sociology Update* to over 100 alumni in spring 2007. The newsletter is also linked to the department web page.

## **B. Critical issues, plans for addressing them and assessing the success of the plans.**

**Anthropology:** The merger with Foreign Languages and Literatures is well underway and the Department anticipates the development of new areas of synergy that will provide exciting opportunities for the new combined department.

**Biochemistry & Biotechnology:** The growth of the program is straining the resources in Biology and Chemistry, whose faculty teach the courses for the Biochemistry & Biotechnology program. Additional resources will be needed if this program is to continue to grow.

**Biology:** The critical residual issues are shortages of space, personnel, and funding. Perhaps the additional critical issue that has arisen since their last 5-year review is the very heavy increase in demand for undergraduate courses, particularly in the Cell and Molecular Biology area. The Department is presently addressing that increased demand

with temporary instructional staffing. New faculty lines would be a more effective and appropriate solution.

**Chemistry & Biochemistry:** The Department has initiated department a long range (10 year) plan. The planning committee has presented the faculty with a series of questions. The answer to these questions and recommendations from the last five year review will be used to guide the planning process. This process will also allow us to assess the progress made in response to the last review and plan for the upcoming review in 2007-2008.

**Criminology & Criminal Justice:** The critical issues are increasing faculty diversity, providing adequate support for PhD students, retaining faculty and increasing the overall size of the faculty. Resolving them will enable the Department to: (1) provide a first class undergraduate and graduate education to students, (2) conduct research and scholarship that ranks with the world's best, and (3) serve the college, university, and local, state, national and international communities. The success of these efforts is continuously monitored by faculty annual reviews by the department chair and members of the elected Executive Committee. Undergraduate student success and satisfaction is monitored through course evaluations, grades, and a senior exit exam. Graduate student success and satisfaction is monitored through course evaluations and grades. In addition, the MA and PhD directors meet regularly with graduate students to discuss their concerns and progress. Issues affecting undergraduate and graduate students are regularly discussed at departmental faculty meetings as part of reports from their undergraduate, MA and PhD directors.

**Economics:** Feedback from alumni has clearly established that the Economic Resource Center has played a very important role in the success of their students. A number of years ago the Department was required to enter into a partnership with ITS to share the center as a computer room. This has been a very beneficial arrangement, but increasingly the space has become more IT space than Economics' space. The Department believes it is imperative to find new space for the student center.

**English:** The department continues to grapple with instructional problems in its lower-level literature offerings – specifically, the large number of non-tenure-track faculty teaching the core survey courses required for all majors. These lecturers, hired initially to teach composition courses, have been assigned literature classes due to the erosion of tenure-track faculty. The Department has not found a satisfactory remedy to this problem that does not require additional resources.

**History:** Critical issues continue to highlight the need for additional faculty. Classes are at or near capacity and program growth – notably at the graduate level – requires the use of adjunct faculty to teach introductory undergraduate courses.

**IWGS:** Critical issues for IWGS include hiring more joint appointees to stabilize the core faculty; providing more courses for students, including more sections of the introductory course; recruiting more students into the certificate programs; fostering research and an

intellectual climate through continuing grant support of gender research, colloquia, and bringing in outside speakers, preferably in the context of day programs or mini-conferences. The Institute should be able to assess improvements by keeping records and comparisons with benchmarks and recommendations in the Five-Year Review.

**Mathematics & Computer Science:** The Department continues to struggle to offer enough upper level and graduate courses and, consequently, relies on several visiting faculty to teach some of their essential courses. The Department wants to replace the visitors with regular faculty who can provide long term focus. This would reduce the loss of PhD students who transferred to departments with a broader range of research. As new technology is integrated into teaching practices, the Department will determine whether to increase the use of GTAs instead of non-tenure-track faculty without affecting the quality of instruction. This will also allow their graduate program to grow. The Computer Science undergraduate curriculum needs to be revised in the light of ACM guidelines.

**Political Science:** Some faculty are worried about students' research capabilities and the efficacy of the senior seminar.

**Psychology:** This information is included above in the section under "Progress in plans made after the last Five-Year Review."

**Physics and Astronomy:** The Department needs to raise more money for Department scholarships and special projects such as the planetarium renovation. It also needs to do more to recruit majors at the graduate and undergraduate level, perhaps in cooperation with CNS. The faculty are spread too thin by teaching the basic graduate courses and the next hire should be a theoretical physicist who can teach graduate level quantum mechanics or electrodynamics. Collaboration between the Center for Neurodynamics and researchers in the Psychology Department is an exciting possibility.

**Sociology:** There is much stronger emphasis on program assessment and planning in the current (2007) academic review than the previous one. The reviewer suggests that the Department reduce significantly the courses listed in the *Bulletin* and offer the remaining ones regularly. It should also create opportunities for student-faculty research as well as opportunities for service learning and internships. The reviewer also raises the fundamental issues of academic integrity, especially for the graduate program, resulting from the small number of regular faculty. In the next two years the entire faculty will engage in collective discussions to articulate student learning objectives and how they should be integrated in the program. Given the limited course offerings, the graduate curriculum needs to be re-organized by working closely with other departments. The Department will emphasize an interdisciplinary structure for the MA.

### C. Assessing Success

**Anthropology:** The Department will establish an Assessments and Planning Committee to help systematize assessment and develop measures to evaluate the success of the response to issues raised in their CPA review.

**Economics:** With respect to getting new space for the Economics Resource Center, the assessment is obvious. To insure that the learning objectives are met at the undergraduate level, the Department is replacing the current standardized ETS exam with a departmental exam that measures success in achieving stated learning objectives. To insure that their learning objectives are met at the graduate level, the Department is implementing a final paper project assessment exercise. The Department is implementing a new evaluation instrument that controls for course difficulty (perceived and actual).

**English:** In the area of instruction of English majors, the Department will continue to use field tests to assess quality, supplemented, hopefully, by the use of capstone courses. Also, graduating seniors submit questionnaires that address such issues as the quality of instruction, the structure of the curriculum, and the quality and helpfulness of advising. These questionnaires are reviewed by the department chair for her/his use in agenda items for department committees.

**Sociology:** Although the Department of Sociology is at the beginning phase of systematic assessment, it has adopted the common mechanisms of assessment—student survey, alumni survey, capstone course, and commercial exams. In addition, it has developed assessment rubrics for research paper writing (included in the Department Self-Study, 2007). The Department will make greater efforts to use the data from these assessments to strengthen the curriculum and teaching. So far it has made only a modest effort to use the information and thus these assessment results have proved of only modest value