October 1, 2012

To: Bronwyn Leebaw (Political Science), Vice Chair
   Piotr Gorecki (History), Secretary/Parliamentarian
   Richard Luben (Biomed), Senior Assembly Representative
   Bahram Mobasher (Physics & Astronomy), Junior Assembly Representative
   Byron Adams (Music), Diversity & Equal Opportunity (CODEO)
   Bahman Anvari (Bioengineering), BCOE Executive Committee
   James Baldwin (Nematology), Physical Resources Planning (PRP)
   Gregory Beran (Chemistry), Academic Computing & Information Technology
   Ward Beyermann (Physics & Astronomy), Educational Policy (CEP)
   Jan Blacher (Graduate School of Education), Planning and Budget (P&B)
   Sarjeet Gill (Cell Biology & Neuroscience), Academic Personnel (CAP)
   David Glidden (Philosophy), Preparatory Education
   Irving Hendrick (GSOE), Faculty Welfare (FW)
   Jennifer Hughes (Religious Studies), CHASS Executive Committee
   Mariam Lam (Comparative Literature & Foreign Languages), Committees (COC)
   Mindy Marks (Economics), Undergraduate Admissions
   Connie Nugent (Cell Biology & Neuroscience), Graduate Council
   Leonard Nunney (Biology), Research (CoR)
   Melanie Sperling (Graduate School of Education), GSOE Executive Committee
   Ameae Walker (School of Medicine), School of Medicine Executive Committee
   Gillian Wilson (Physics & Astronomy), CNAS Executive Committee
   Rami Zwick (SoBA), SoBA Executive Committee

Fr: Jose Wudka, Chair
    Riverside Division

RE: Executive Council Agenda, October 8, 2012

This is to confirm the meeting of the Executive Council on Monday, October 8, 2012 at 1:00 p.m. to 3:00 p.m. in Room 220 2nd Floor, University Office Building.
<table>
<thead>
<tr>
<th>Time</th>
<th>Item</th>
<th>Enclosures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00-1:05</td>
<td><strong>Conflict of Interest Statements, Received:</strong> Academic Personnel, CHASS Exec Committee, Distinguished Campus Service, Distinguished Teaching, Faculty Research Lecturer, Faculty Welfare, Graduate Council, Library, Physical Resource Planning, Rules &amp; Jurisdiction</td>
<td>1. pp 3-5</td>
</tr>
<tr>
<td>1:05-1:35</td>
<td><strong>MASTER OF FINANCE IN SOBA</strong></td>
<td>2. pp 16-206</td>
</tr>
<tr>
<td>1:35-1:50</td>
<td><strong>CULVER CENTER – COIL BROTHERS ATRIUM</strong></td>
<td>3. pp 207-211</td>
</tr>
<tr>
<td>1:50-2:05</td>
<td><strong>INTERNATIONAL ACTIVITIES RESPONSE</strong></td>
<td>4. pp 212-213</td>
</tr>
<tr>
<td>2:05-2:35</td>
<td><strong>REPORT OF THE ADMINISTRATIVE/SENATE WORKGROUP ON ACADEMIC GRADUATE STUDENT ISSUES</strong></td>
<td>5. pp 214-292</td>
</tr>
<tr>
<td>2:35-2:50</td>
<td><strong>ANNOUNCEMENTS BY CHAIR WUDKA:</strong></td>
<td></td>
</tr>
<tr>
<td>2:50-3:00</td>
<td><strong>UPDATES FROM SENATE COMMITTEE CHAIRS</strong></td>
<td></td>
</tr>
</tbody>
</table>
September 24, 2012

To: Jose Wudka  
Chair, Riverside Division Academic Senate

From: Sarjeet Gill  
Chair, Committee on Academic Personnel

Re: Conflict of Interest Statement for 2012-2013

In accordance with Division Bylaw 8.2.5, the Academic Senate Committee on Academic Personnel has adopted the following conflict-of-interest statement for 2012-2013 by a vote of +10-0-0.

There is an expectation that Committee members will neither participate nor vote in departmental meetings when formal discussions and votes are held for merit, promotion, quinquennial or appraisal actions. Individual exceptions to this understanding will be reviewed by the Committee, and exception statements will be filed with a copy of this statement and maintained in the Academic Senate Office. In these exceptions, the Committee member will not participate in related discussions or votes taken by the Committee on Academic Personnel.

In addition, Committee members will notify the Chair of the Committee whenever they believe a conflict-of-interest exists regarding their own participation or the participation of any other Committee member in any action under consideration by the Committee. If the matter concerns the Chair of the Committee, members will notify the Chair of the Academic Senate.

Faculty members who are members of departmental search committees, or those voting on appointments in their home departments, will not participate in related discussions or votes taken by the Committee on Academic Personnel.

The Vice Chair of the Committee on Academic Personnel will assume the duties of the Committee Chair for the review of personnel files from the Chair’s home department.

A standing committee (Shadow CAP) of six members will exist to review personnel actions that involve current CAP members or their spouses/partners. This committee will consist of faculty who have previously served on CAP. The membership will be appointed by the Committee on Committees.

CAP recognizes its responsibility to maintain the utmost confidentiality and fairness in its deliberations. Accordingly, it is the duty of members of CAP to refrain from discussion of any personnel actions with anyone outside CAP either before or after CAP considers a file.
September 26, 2012

SUBJECT: 2012/13 Conflict of Interest Statement

JOSE WUDKA, CHAIR
Academic Senate

The Executive Committee of the College of Humanities, Arts, and Social Sciences met on September 26, 2012 and discussed the issue of Conflict of Interest. The Committee decided that if a member of the Executive Committee sees a conflict arise, he/she will bring it to the attention of the Committee, and the Committee will deal with it at that time.

Jennifer Hughes, Chair
Executive Committee, CHASS
September 6, 2012

TO: J. WUDKA, CHAIR
   RIVERSIDE DIVISION

FR: G. WAINES, CHAIR
    COMMITTEE ON DISTINGUISHED CAMPUS SERVICE

RE: CONFLICT OF INTEREST STATEMENT

The Committee on Distinguished Campus Service approved the adoption of the following conflict of interest statement for 2012-13:

The Committee on Distinguished Service has adopted the following policy for situations in which personal affiliation of a Committee member with departments, programs, or individuals bringing business before the Committee might be interpreted as a source of bias in Committee deliberations. A member whom the Committee deems to be subject to a conflict of interest may be asked to provide information, where appropriate, on the business under consideration, but will be excluded from participating in any motions or votes in regard to the business under consideration. The Committee Chair may ask the Committee member to leave the room during the period of any substantive discussions, motions or votes.
September 14, 2012

TO: J. WUDKA, CHAIR
    RIVERSIDE DIVISION

FR: J. HOLT, CHAIR
    COMMITTEE ON DISTINGUISHED TEACHING

RE: CONFLICT OF INTEREST STATEMENT

The Committee on Distinguished Teaching approved the re-adoption of the following conflict of interest statement for 2012-13:

The Committee on Distinguished Teaching has adopted the following policy for situations in which personal affiliation of a Committee member with departments, programs, or individuals bringing business before the Committee might be interpreted as a source of bias in Committee deliberations. A member whom the Committee deems to be subject to a conflict of interest may be asked to provide information, where appropriate, on the business under consideration, but will be excluded from participating in any motions or votes in regard to the business under consideration. The Committee Chair may ask the Committee member to leave the room during the period of any substantive discussions, motions or votes.
September 6, 2012

TO: J. WUDKA, CHAIR
RIVERSIDE DIVISION

FR: B. FEDERICI, CHAIR
COMMITTEE ON FACULTY RESEARCH LECTURER

RE: CONFLICT OF INTEREST STATEMENT

The Committee on Faculty Research Lecturer approved the re-adoption of the following conflict of interest statement for 2012-13:

If a member of the Committee on Faculty Research Lecturer thinks that a conflict of interest exists for him/herself or for another person on the committee, that member should call that possibility to the attention of the Chair. The Chair will then convene the committee, in the absence of the individual with the potential conflict. Those present will then decide by a majority vote if a conflict exists. If the decision is affirmative, the individual with the conflict will leave the room during discussion of the conflicting matter and will not vote on that issue.
September 28, 2012

To: Jose Wudka, Chair
Riverside Division of the Academic Senate

From: Irving Hendrick, Chair
Committee on Faculty Welfare

Re: Conflict of Interest Statement – 2012-2013

At its meeting on September 28, the Committee on Faculty Welfare reviewed and reaffirmed its existing Conflict of Interest statement for adoption during the 2012-2013 term as follows:

The following policy has been adopted for situations where the personal affiliation of a committee member with departments, programs, or individuals bringing business before the Committee on Faculty Welfare might be interpreted as a source of bias in committee deliberations. Members of the Committee on Faculty Welfare are asked to identify when they may have a potential conflict of interest on any items before any discussion. The Committee member may be asked to provide information, where appropriate, on the business under consideration, but will be excluded from participating in any motions or votes in regard to the business under consideration. The Committee on Faculty Welfare Chair may ask the committee member to leave the room during the period of any substantive discussions, motions, or votes. This exclusion will be noted in any report issued by the Committee on Faculty Welfare.
September 27, 2012

TO: JOSE WUDKA, CHAIR
    RIVERSIDE DIVISION

FR: CONNIE NUGENT, CHAIR
    GRADUATE COUNCIL

RE: CONFLICT OF INTEREST STATEMENT – 2012-13

The Graduate Council approved the following Conflict of Interest statement:

**Purpose:**
The Graduate Council should conduct itself in such a manner that neither the reality nor the appearance of a conflict of interest should be present in any action taken by the Council.

**Terms:**
1. Whenever any matter that affects a member of the Council as an Individual or as a member of a department or program is to be decided, that member should absent himself/herself before the vote is taken. If the member does not leave voluntarily, the Chair should excuse the member.
   a. The Chair of the Council may ask the member to provide information on the matter before the member’s departure.
   b. When confidential information is being provided to the Council, the affected member will be excused by the Chair before the information is provided.
   c. When student petitions are considered, Council members should consider a student matter in their department/program as a conflict of interest for themselves.
   d. When routine matters (e.g., course approvals) are being considered, the Chair may elect to allow all members to participate in the discussion and vote. This section is not meant to include program revisions, review committee reports on a specific department or individual student matters.

2. Subcommittee operations are subject to the same rules as the Council as a whole. The Chair may name a replacement from the Council membership for an
individual serving on a subcommittee who has a conflict of interest when necessary.

3. Students are not permitted to be present in Council meetings when matters pertaining to individual students are discussed.

4. In unforeseen cases, the Chair may rule that any member should be excused if the Chair foresees conflict of interest in the matter under discussion. The affected member may appeal to the Council. The member or the chair may appeal to the Committee on Privilege and Tenure if the results of the Council vote are not satisfactory; the matter to be discussed will be held without action pending the decision of the Committee on Privilege and Tenure.

5. Members with possible conflicts of interest should discuss the matter with the Council Chair before the pertinent Council meeting. If the Chair foresees a conflict of interest on the part of a Council member, he/she should discuss the matter with the affected member. It is to be hoped that a course of action satisfactory to the member and the Chair can be achieved. If this is not possible the Chair should determine the proper course of action. The member may appeal to the Council and/or the Committee on Privilege and Tenure as indicated in Section 4 above.
September 6, 2012

TO: JOSE WUDKA, CHAIR
RIVERSIDE DIVISION

FR: J. MORSE, CHAIR
COMMITTEE ON LIBRARY AND SCHOLARLY COMMUNICATIONS

RE: CONFLICT OF INTEREST STATEMENT

The Library and Scholarly Communications Committee has re-adopted the following conflict-of-interest statement covering the Committee’s business for 2012-2013:

If personal affiliation of individual committee members with departments, programs, or with individuals bringing business before the Committee may be interpreted as a source of bias in committee deliberations, such member(s) shall not participate in the relevant discussion and shall be recorded “not voting” in the event a vote is taken on that issue. Determination of such possible conflict of interest shall be made by the affected member him/herself or by the majority vote of the Committee.
October 1, 2012

To: Jose Wudka, Chair
    Riverside Division

From: Jan Blacher, Chair
      Committee on Planning and Budget

RE: CONFLICT OF INTEREST 2012-13

The Committee on Planning and Budget has reviewed their conflict of interest statement and has adopted the following Conflict of Interest Statement for 2012-13 by a unanimous vote:

Potential conflicts of interest may occur as members of the committee formulate recommendations of concern to the campus. Accordingly, members of the Committee on Planning and Budget will be available to offer the Committee information and to participate in discussions, but will excuse themselves from the vote on matters pertaining to departments and programs of which they are members or through which they might materially benefit.
September 14, 2012

TO: JOSE WUDKA, CHAIR
RIVERSIDE DIVISION

FROM: JAMES BALDWIN, CHAIR
COMMITTEE ON PHYSICAL RESOURCES PLANNING

RE: CONFLICT OF INTEREST STATEMENT 2012-2013

The Physical Resources Planning Committee re-adopted the following conflict of interest statement for 2012-2013:

If any Committee member has a personal affiliation with departments, programs, or individuals that are part of ordinary deliberations of the Committee, that member may have a conflict of interest. If any member does have such a conflict of interest, it is their responsibility to bring it to the attention of the Chair. Upon consultation with other Committee members, the Committee Chair may ask that member to leave the room during substantive discussions, motions or votes.
September 18, 2012

TO: J. WUDKA, CHAIR  
RIVERSIDE DIVISION

FR: L. NUNNEY, CHAIR  
COMMITTEE ON RESEARCH

RE: 2012-2013 CONFLICT OF INTEREST STATEMENT

The Committee on Research re-adopted the following Conflict of Interest statement:

If a member of the Committee on research submits an application for funds from this committee, he/she will not participate in the evaluation discussion or decision concerning that particular application. Further, each application for Intramural Research funding will be reviewed and evaluated individually by two members of this committee, before final discussion by the entire committee, in order to ensure a fair and impartial review of each application. Finally, if any member of this committee believes that a conflict of interest exists for him/herself or for another person on the committee, that member should call the possible conflict of interest to the attention of the chair. The chair will convene the committee, and those present will decide by majority vote if a conflict exists. If their decision is affirmative, the individual with the conflict will leave the room during discussion of the conflicted matter and will not vote on that matter.
September 10, 2012

To: Jose Wudka, Chair
   Riverside Division Academic Senate

From: Ziv Ran, Chair
   Committee on Rules and Jurisdiction

RE: CONFLICT OF INTEREST STATEMENT FOR 2012-2013

In accordance with Bylaw 8.2.5, the Committee on Rules and Jurisdiction re-adopted the following statement for handling potential conflicts of interest in the 2012-2013 academic year:

In cases where a committee member's affiliation with a department or program, or with an individual bringing business before the committee might be interpreted as a potential conflict of interest, that committee member will identify himself/herself and the potential nature of the conflict. The other members of the committee will decide if a potential conflict does indeed exist. If so, the committee member may subsequently be asked to provide information on the business under consideration but will be excluded from participating in any consideration of said business. The committee member may be excluded from participation in substantive discussions, communications and deliberations concerning the matter, the making of motions, and/or voting.
PROPOSAL FOR A MASTER OF FINANCE

School of Business Administration
A. Gary Anderson Graduate School of Management

University of California Riverside

September 2012

Status:

Approved by School of Business Administration Executive Committee: January 25, 2011
Approved by School of Business Administration Faculty: February 4, 2011
Submitted to Graduate Division
Revised per comments from Graduate Division April 12, 2011
Approved by Graduate Council April 20, 2011
Approved by UCR Academic Senate November 29, 2011
Returned by UC Coordinating Committee on Academic Affairs June 18, 2012
Revised per CCGA and other comments
Reapproved by Graduate Division
Reapproved by Graduate Council
Reapproved by UCR Academic Senate
GRADUATE DEGREE PROGRAM PROPOSAL

Lead Proposers:

- The faculty of the School of Business Administration and the A. Gary Anderson Graduate School of Management
- The faculty chair and faculty members in the area of Finance\(^1\)
  - Peter Chung
  - Thomas Kim
  - Yun Liu
  - David Mayers (emeritus)
  - Richard Smith
  - Rami Zwick, Faculty Chair and Finance area coordinator

Contact Information:

Richard Smith
Philip L. Boyd Chair and Professor of Finance
School of Business Administration
University of California Riverside
Riverside, CA 92521
Tel: 951.827.7325
Email: richard.smith@ucr.edu

\(^1\) The School of Business Administration was recently reorganizing as a single department. While the new structure significantly affects personnel processes within the School, discipline-based functional areas have been retained and continue to play important roles in curriculum-related matters. Thus, the restructuring does not affect implementation or administration of the Master of Finance program.
<table>
<thead>
<tr>
<th>SECTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2.0 PROGRAM</td>
<td>7</td>
</tr>
<tr>
<td>3.0 PROJECTED NEED</td>
<td>12</td>
</tr>
<tr>
<td>4.0 FACULTY</td>
<td>17</td>
</tr>
<tr>
<td>5.0 COURSES</td>
<td>21</td>
</tr>
<tr>
<td>6.0 RESOURCE REQUIREMENTS</td>
<td>21</td>
</tr>
<tr>
<td>7.0 GRADUATE STUDENT SUPPORT</td>
<td>23</td>
</tr>
<tr>
<td>8.0 GOVERNANCE</td>
<td>23</td>
</tr>
<tr>
<td>9.0 CHANGES IN SENATE REGULATIONS</td>
<td>23</td>
</tr>
<tr>
<td>EXHIBIT I COURSE DESCRIPTIONS OF REQUIRED AND SELECTED ELECTIVE COURSES</td>
<td>24</td>
</tr>
<tr>
<td>EXHIBIT II FINANCIAL PROJECTIONS</td>
<td>27</td>
</tr>
<tr>
<td>EXHIBIT III COURSE SCHEDULE AND COURSES</td>
<td>29</td>
</tr>
<tr>
<td>EXHIBIT IV ACADEMIC DEGREE PROGRAM PROPOSALS: INFORMATION REQUIRED BY CPEC</td>
<td>30</td>
</tr>
<tr>
<td>EXHIBIT V MARKET INFORMATION ON FINANCE GRADUATE PROGRAMS</td>
<td></td>
</tr>
<tr>
<td>EXHIBIT VI COMMENTS FROM SCHOOLS THAT OFFER FINANCE MASTER’S PROGRAMS</td>
<td></td>
</tr>
<tr>
<td>EXHIBIT VII LETTER FROM SCHOOL OF BUSINESS ADMINISTRATION INTERIM DEAN</td>
<td></td>
</tr>
<tr>
<td>EXHIBIT VIII LETTERS FROM LOCAL FINANCIAL COMMUNITY REPRESENTATIVES</td>
<td></td>
</tr>
<tr>
<td>EXHIBIT IX CURRICULUM VITA OF SELECTED PARTICIPATING FACULTY</td>
<td></td>
</tr>
</tbody>
</table>
PROPOSAL FOR A MASTER OF FINANCE

§ 1.0 INTRODUCTION

The UCR School of Business Administration (SoBA) proposes to offer a new Master of Finance (MFin) degree program to address the substantial unmet demand for trained finance professionals. The new degree program will require one academic year of full-time study or its equivalent on a part-time basis. The program will be a self-supporting program. While the program is structured as self-supporting, it is designed to leverage the existing capacity of the School’s current MBA program and is expected to be cash-flow-positive from the first term it is offered.

SoBA offers a Bachelor of Science in Business Administration where an undergraduate student may choose to concentrate in a specialized area such as Finance. However, coursework culminating in a baccalaureate degree with a concentration in finance is not usually sufficient for advanced finance professionals. A student may also earn an MBA with a concentration in Finance; however, by design, an MBA is a generalist degree, and is perceived as such by employing firms.

The proposed Master of Finance degree will bring greater visibility to UCR, the Graduate School, and SoBA; contribute positively to the reputation of the School nationally and internationally; and serve the growing needs of the region for well-educated finance professionals. The program is consistent with the UCR and SoBA strategic plans; will give us an important edge over our competition as we move to take advantage of the fact that our geographical area is underserved in this sphere; and will elevate our national and international visibility as we do our part to meet the growing demand for finance professionals.¹

This proposal describes the rationale for the degree program, outlines how the program advances our strategic plan, and provides background on the market for the degree. The proposal includes information comparing the proposed program to those offered by other schools nationally and internationally, and includes details of the curriculum of the one-year degree program. The program requires only a small front-end investment because most of the courses in the curriculum are already offered routinely by SoBA.

1.1 Aims and Objectives

The SoBA Master of Finance program will meet the needs of two types of students: international students who are seeking a master’s degree with an emphasis in Finance and domestic students who generally have work experience and wish to strengthen their experience via attaining a master’s degree in finance for future professional growth in the work environment. Work experience is not required, nor is it essential to succeed in the SoBA Master of Finance program.

Other similar programs have experienced significant growth in the international market. Claremont McKenna College, for example, reports that in its fourth year, it had over 800 applications, mainly from China. Case Western Reserve, a more seasoned program, reports that 1200 of its 1330 applicants last year were from China. Most foreign students tend to return to their home countries after completion of the advanced degree.

Although work experience is not essential, inclusion of some students with experience in the financial sector can contribute to the quality of the experience of others, help connect the school to the financial community, and enrich classroom discussion. Students with experience tend to come from the U.S. and may choose to pursue the degree on a part-time basis. In recognition of this, Claremont McKenna seeks to limit Chinese

¹ Exhibit VIII contains letters from representatives of the financial community.
matriculation to 1/3 of each class, and Case Western, in its admission of domestic students, places greater emphasis on professional experience and demonstrated leadership potential and less on test scores.

We expect that students will find employment as financial analysts, in trading, in consulting firms, in wealth management, and in insurance. Claremont McKenna, our closest local competitor, focuses exclusively on early-career students and reports average starting salaries of $78,000 for its most recent year, exclusive of performance bonuses. They report careers as financial analysis, traders and consultants with hedge fund managers, accounting firms or other similar companies.

Based on the experience of faculty involved with the proposed program, it is possible to develop a strong sense of esprit de corps among the students, even with substantial variations in prior experience, and to build lasting relationships with recent graduates that are useful to current students, other alums, and the School.

The following are among our main aims and objectives for the program:

- The program will enable finance executives to gain the specialized expertise required for professional advancement.
- The regional market for finance professionals is underserved by institutions of higher education. The program will enable UCR to address the regional market need for professional education in finance.
- The program will enable us to maintain and build critical mass of faculty in finance and related fields.
- The program is expected to become a source for new databases that will provide value to the program, to advance the research mission of the School, and to fund well-qualified Ph.D. students with emphasis in finance (to be launched in the future).
- The program will help position the school to achieve AACSB accreditation, which accreditation will benefit all programs of the School.
- The program is congruent with the UCR and SoBA strategic plans
- Graduates of the program can be of immediate value in helping the School to place its graduates in attractive professional employment and finance alums can quickly become important prospects for campus development efforts.
- The particular strengths of UCR will enable the program to help bring greater socioeconomic diversity to the profession

### 1.2 Historical Development of the Field and Department Strengths

During the early decades of the twentieth century the focus of financial education was legalistic and institutional, dealing with matters such as the organization of the banking system, the function of money, and the elements of financial contracting. Development of modern finance theory began with capital theory, with the most significant contribution being *The Theory of Interest* (Irving Fisher, 1930). From then until the 1950s, the main theoretical focus of finance was on “the time value of money” without regard to risk.

In 1952, Harry Markowitz published the first significant theoretical work on risk and return, “Portfolio Selection” (*Journal of Finance*) largely for which he was awarded the Nobel Prize in Economics in 1990. This article was the introduction of what has come to be known as “modern portfolio theory” and has launched finance as an offshoot but clearly separate discipline from economics.

The introduction of portfolio theory transformed investment practice in fundamental ways. Previously, institutional money managers were legally obligated to consider the merits of investment opportunities one-at-a-time and often to reject high-risk opportunities without regard to potential return. Beginning around 1969, changes in fiduciary law enabled money managers to evaluate risk and return in the context of a
diversified portfolio. From this point, money management became much more sophisticated and data-oriented. Investment managers needed to be able not only to conduct fundamental analysis of individual companies and securities, but to statistically assess the contributions of an asset to the overall risk and return of a portfolio.

More recently, the finance profession has recognized that there sometimes is a demand for securities that have very unusual risk profiles that are designed to do well under very specific conditions and poorly under others. The profession has sought to serve this market need by developing sophisticated financial claims that meet the needs of particular investors. As is clear from recent events, their efforts have not always been successful and sometimes have had very adverse consequences. The underlying causes of the financial failures can usually be traced to naïveté in the design of the financial instruments, insufficient operational controls of the investor, and lack of clear understanding on the part of investors and regulators.

Recognizing the importance of strong quantitative skills, major financial firms and insurance companies have often found that undergraduate education in finance or the broad-based management education of an MBA were not sufficient for some of their needs and began to hire finance Ph.D.s into professional positions. In most cases, a finance Ph.D. entails more education than is of value to employers. While there is a clear need for advanced research skills, the heavy investment of time at the dissertation stage can be more than employers need.

The development of professionally oriented masters programs in finance is in direct response to the recognition that students who aspire to work in the field of finance need more specialized education than is available through standard undergraduate or masters-level degree programs. Advanced finance education has developed along two lines. One is heavily quantitative. Students in quantitative finance programs normally have undergraduate degrees in mathematics, physics, engineering, or computer programming. In addition to learning some basic finance, students in these programs normally focus on stochastic processes and are often involved in designing new securities with risk profiles that are intended to serve the needs of narrow market niches. These programs are normally called masters programs in financial engineering or computational finance. The Master of Financial Engineering programs at UCLA and UC Berkeley are of this type. The second line is more general. Students normally take more finance and accounting courses and econometrics focused on finance applications. They generally do not go heavily into stochastic processes or programming. These students more often find employment as financial analysts or in other positions that are closer to the interface between financial institutions and their clients/customers. These programs are normally called master’s in finance, master of finance, master of arts or master of science in finance, financial management, or investments. This line is the focus of the proposed Master of Finance program of UCR.

The SoBA faculty is well-positioned to meet the needs of students in the proposed Master of Finance program. Our finance faculty, while currently small, is intended to grow over the next few years, partly in anticipation of the needs of the program. The current finance faculty members are all involved in research areas that are appropriate for students in the MFin program. In addition, some courses that are appropriate for students in the program are currently offered by the accounting faculty and the management science faculty of SoBA. Consistent with the orientation of this program, the School has identified empirical finance as one of its five “spires of excellence,” the area has restructured its curriculum at both the graduate and undergraduate levels to infuse empirical analysis into the curriculum, and two new empirical finance courses have been developed for the proposed MFin program. Faculty hiring has focused on empirical finance and is expected to continue to do so.

1.3 Timetable
The School seeks to launch the program in the fall of 2013. Most courses in the program are already offered as MBA electives. Two new courses focused more specifically on the needs of the program have been approved and will be offered when the program is launched. We will initiate the program with a faculty director and existing SoBA administrative staff. We have conservatively projected enrollments at 10 students in the first year and gradually increasing to a projected maximum of 50 students by the fifth year. These enrollment projections are below those achieved by other schools offering similar programs.

The UCR campus strategic plan provides for growth of professional and self-supporting programs, however does not define enrollment goals for self-supporting programs.

1.4 Relation to Existing Programs and Campus Academic Plan

The program fits the overall strategic plans of UCR and SoBA to increase its presence and reputation regionally, nationally, and internationally. The graduate degree in finance is a part of the portfolio of offerings at many major business schools, and such graduate master’s degree finance programs are routinely ranked in such publications as *US News, Business Week*, and the *Financial Times*. The program will fund acquisition of databases important to finance, engage professional students in empirical financial research, connect the campus more firmly with the professional finance community, and strengthen our ability to place our students in significant professional positions.

The proposed Master of Finance degree program advances the objectives of UCR as reflected in its recently developed strategic plan, *UCR 2020: The Path to Preeminence*. This strategic plan places significant emphasis on increased focus on “professional and graduate education that will benefit a region that is in dire need of practitioners in a variety of professional fields.” The plan notes that UCR’s most successful graduate programs are those that integrate graduate education with academic research and creative activity, and that to achieve the profile of an AAU institution, UCR must increase its proportion of graduate and professional students. The plan points to the potential for professional programs to provide revenue enhancements to the campus.

The strategic plan calls for relative growth of graduate education, including professional education; serving the region by preparing students well for professional employment; reducing dependence on public funds through development of self-supporting graduate programs; connecting professional education to academic research; connecting more closely to the region; and developing the profile of an AAU university.

The proposed Master of Finance program is also consistent with the strategic goals of the School of Business Administration. The SoBA strategic plan identifies “empirical finance” as one of five spires of excellence. The term, empirical finance, implies that students will have hands on opportunities to work with data, to learn advanced empirical methods relevant to finance, and that there will be significant complementarities between teaching and research in finance.

While the SoBA strategic plan defines empirical finance as one of its five spires of excellence, we have been frustrated in developing this spire because as state funds to the campus declined, the library discontinued several databases important to empirical research and teaching in finance. The school has managed to maintain access to some of these databases, but currently we fall well short of our needs. This has adversely impacted our research output, our ability to bring empirical finance to the classroom to the extent we aspire to do, and to attract new finance faculty to the campus. The launch of the Master of Finance will enable us to address these problems.

We are in an environment where specialized post-graduate education is increasingly demanded. No longer is specialization just for academic Ph.D.s. As the recent financial crisis and other famous financial failures (the Orange County bankruptcy, Long-Term Capital Management, and others) demonstrate, people with important
decision rights related to finance need strong educational backgrounds to help them and their organizations to be successful. Appropriate education for finance professionals is similar to that of finance Ph.D.s. In fact, many of the technological advances in finance have come not from the universities, but from the private sector. Finance professionals working in the Riverside/San Bernardino area need to be dynamic and innovative because the economy of the region is destined to be the most rapidly growing portion of the California economy in the foreseeable future, and that growth is closely tied with the development and increasing professionalism of the financial sector in the region.

We expect that the Master of Finance program will positively impact the existing programs of SoBA:

- Because we plan to offer the degree initially using the capacity of existing courses, there will be no reduction in the capacity of the existing faculty to serve the teaching missions of the existing graduate and undergraduate degree programs.
- As the program grows, it may be necessary to add additional faculty in finance, as well as, possibly, in accounting and management science. The program will provide sufficient sustainable free cash flow to support the addition of lines.
- Faculty hired in response to growth of the program will help build critical mass in the school, help to advance the school’s research mission, and help to support the eventual launch of the finance component of the Ph.D. in Management.
- While the program may be attractive to some students who otherwise would apply to the school’s MBA program, it will also generate its own stream of applicants. Based on experience of other schools, the net effect is substantially positive for recruitment to the MBA program.
- Students admitted to the Master of Finance program will be strong quantitatively and will contribute positively to the classroom experience and learning of MBA students.
- Students of the Master of Finance program are frequently interested in pursuit of the Ph.D. so that the program will provide a means of attracting and screening future Ph.D. candidates.
- The Master of Finance program is not expected to impact the undergraduate program offered by the Department. The balance of staffing undergraduate courses will be maintained or enhanced when new faculties are added as the program grows.

The experience of other universities that offer similar specialized degrees in finance shows that additional degree offerings in finance tend to complement and ultimately augment the MBA programs of the school, bringing dividends of additional prestige to the school, as well as benefits of networking with the firms in the financial services industry. While the Master of Finance degree program will share resources with the MBA program, it will attract its own pool of applicants. Because we can achieve sustainability at a very low level of students, and because MBA staff will also be involved in the Master of Finance admissions, we can control the admission of students to the appropriate programs. Overall, the Master of Finance program is expected to have a positive impact on the web traffic from students who are interested in the UCR MBA.

There is ample evidence in the experience of other schools that those who apply for Master’s degrees in finance tend to have stronger quantitative background than MBA applicants. Therefore, not just the market but the selection criteria for admission to the MBA and Master of Finance programs will differ. The marketing efforts for attracting students to the Master of Finance program will result in a boost to the profile of the school as a whole. Students in the two programs will attend several courses together, and the presence of students with stronger quantitative background will tend to elevate the experience of both sets of students.
The effort to place graduates of the Master of Finance program, coordinated with the placement effort for MBAs will help us to better place students into the cohorts that best suit them.

**Improved prospects for AACSB accreditation in finance:** The program will increase the prospects for earning finance accreditation from The Association to Advance Collegiate Schools of Business (AACSB International). AACSB accreditation is the most prestigious accreditation for finance and business programs. The AACSB is the most widely accepted and highly regarded accrediting body for business-related degree programs. AACSB accreditation mandates that our department must maintain international standards of excellence specifically designed for undergraduate finance programs. Many universities find these finance standards to be difficult to meet. While more than 550 universities have business programs that are accredited by the AACSB, fewer than 170 have separately accredited finance programs. Currently there are only five AACSB-accredited finance programs in California, none of which is on a UC campus. UC Berkeley Haas School has indicated that it will seek finance accreditation in the future. Our department is committed to continuous improvement in curriculum, faculty, and student quality these accreditation standards require.

### 1.5 Interrelationships with the Programs of other UC Institutions, Market and Competition

Southern California is greatly underserved in graduate finance education.

- UCLA, Claremont McKenna, and Pepperdine University are the only other schools in Southern California that currently offer advanced degrees in finance.
- Schools on the East Coast and east of the Mississippi are in the forefront of development and introduction of specialized graduate degrees in finance.
- The UCLA program, Master’s in Financial Engineering, is fundamentally different from the proposed program and targets a different market.
- It is only a matter of time before our local competitors will introduce such programs, making UCR’s introduction of the program at this time partly defensive.

The Master of in Finance will provide a comprehensive overview of the entire field of finance, with an emphasis on empirical methods and applications. This degree contrasts with other specialized master’s degrees in finance. A clear distinction exists between a master’s degree in finance and a master’s degree in financial engineering or computational finance. Financial engineering and computational finance degrees are targeted for students with backgrounds in mathematics, engineering, physics, or computer programming. The degree programs are intended to help students learn to apply their quantitative abilities to finance problems. The students normally go into back-office positions such as securities design, trading, and actuarial science. In contrast, the master’s degrees in finance are heavily focused on finance, with less emphasis on mathematics, stochastics, and programming. Students are more likely to have backgrounds in economics or business and students are more likely to have prior professional experience than those in financial engineering or computational finance programs.

- Berkeley, and UCLA, the two UC campuses that offer advanced degrees in finance, both offer degrees in financial engineering. There is no significant overlap between these programs.
- A useful comparable case is the finance masters programs of the Claremont Colleges. Claremont Graduate University has offered a Master of Science in Financial Engineering since about 1998. This degree program is similar to the one-year Master of Financial Engineering (MFE) programs of UCLA and UC Berkeley. Claremont McKenna College introduced its Masters of Financial Economics program in
2008. Based on experience with these programs and discussions with the founding director of the CMC program and its placement director, these programs and the Claremont Graduate University MBA program all target different profiles and there is no noticeable overlap among them. In a few cases, students who had applied to the MSFE program, but were not qualified for that program based on insufficient quantitative background were invited to redirect their applications to the MBA program.

1.6 Administration

The program will be administered by a faculty director within the finance area of the UCR School of Business. The School will establish a faculty admissions committee that will operate similarly to the current MBA program admissions committee. These admissions committees will collaborate and work with SoBA staff to establish clear distinctions in admissions criteria. Among other considerations, the Master of Finance will place less emphasis on work experience and more on evidence of quantitative aptitude, ability and interest. Because of the importance of participative learning, the admissions committee will make selective use of interviews for foreign students, in addition to standardized tests of English proficiency.

Initially, the program will be marketed almost exclusively on the School’s website, through local information sessions, and through promotion to faculty and administration of likely feeder schools. Information about the program will be distributed at MBA forums whenever the School decides to participate in such forums for the purpose of MBA recruiting.

Course staffing will be administered mainly by the finance area coordinator (faculty), in conjunction with their normal staffing responsibilities for MBA courses. Performance reviews of lecturers are the shared responsibility of faculty members in the discipline, and a formal annual review process for lecturers is already in place and is working well. Formal student advising will be administered through faculty-led advising/information sessions, with informal advising by faculty on an as-needed/as-requested basis.

Initial administrative support will be provided by existing SoBA staff in conjunction with their existing responsibilities for program administration.

As the program grows, it may become important to add dedicated staff and to formally allocate a portion of faculty time to program administration. Based on prior experience and conversations with directors of other programs, once the program reaches a scale sufficient to justify a full complement of course offerings, the program could need up to one faculty FTE fully committed to administration of this program and at least one dedicated administrative staff member who would be involved with recruiting, advising, and placement. The faculty FTE can be spread over several individuals and can include LSOE. The director of the Case Western program reports that their attempts to centralize administration with the MBA staff have been less than satisfactory because the staff tend to be MBA-centric and not to understand the different needs, backgrounds, objectives, and prospects of the finance masters students.

1.7 Plan for Evaluation

Within the School, the program will be continuously evaluated based on attainment of student FTE projections, the quality of applicants and matriculated students, curriculum effectiveness relative to learning objectives, placement success, and continuing involvement of program alums.

Campus policy is to evaluate new programs after three years.

§ 2.0 PROGRAM

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2 Exhibit VII contains a letter of support from the School’s Interim Dean.
2.1 Undergraduate Preparation for Admission

Eligibility for admission depends on having completed a four-year undergraduate degree or equivalent. Based on experience of other schools, most applicants are expected to have undergraduate majors in economics or business. However, a background in economics or business is not essential. Students with undergraduate majors in such diverse areas as engineering, mathematics, and English could be good candidates, provided they can demonstrate strong quantitative aptitude and interest. Because classroom participation requirements in the program are high, international students will need to demonstrate competency in written and spoken English.

Appropriate undergraduate majors include business, economics, engineering, mathematics, statistics, and physics, among others. Students admitted to the program will have an academic profile somewhat different from those likely to be admitted to other master’s level programs in AGSM. In particular, the Master of Finance places substantially greater emphasis on quantitative background as reflected in undergraduate degree, courses taken, and scores on quantitative portions of admissions tests. In comparison to the MBA, the MA in Finance places less emphasis on work experience. However, over time we expect that the cohort will include individuals with significant relevant work experience.

To be qualified for admission, an applicant to this program must have completed a Bachelor’s degree or its approved equivalent from an accredited institution and attained an undergraduate record that satisfies the standards established by the Graduate Division and University Graduate Council. Applications are accepted for fall term. All applicants must submit scores from the Graduate Management Admissions Test (GMAT) or Graduate Record Exam, General Test (GRE). Applicants whose first language is not English are required to submit acceptable scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) unless they have a degree from an institution where English is the exclusive language of instruction. In some cases, an interview may be required to assess English language ability. Additionally each applicant must submit at least two letters of recommendation, including at least two academic references. All other application requirements are specified in the graduate application or in the General UCR catalog.

As presented in Exhibit III, in the first quarter of the Master of Finance degree program, students will be expected to take core courses in quantitative methods, finance, and financial accounting. This grounding is sufficient to expose students, in the second quarter, to two main sub-fields of finance: corporate finance and asset pricing. In the final quarter, the students are expected to build on what they learned in the second quarter by taking more advanced courses in the two areas, such as Corporate Risk Management, and Fixed Income Securities. The Seminars in Empirical Methods in Finance and in Corporate Finance will be offered at least annually in different terms. Full-time students are expected to complete these courses during their second and third terms. Full-time students are expected to choose one or more electives in each quarter of study from an extensive range of electives, such as International Finance, Entrepreneurial Finance, Decision-making Under Uncertainty, and Financial Strategy and Corporate Control in Finance, in addition to relevant courses such as Financial Statement Analysis, Advanced Financial Accounting, Applied Business Forecasting, etc. from other disciplines in Business.

Students should be able to complete the coursework for this program in one academic year. Admission is intended to be primarily in the fall quarter in order to match graduation timing with the normal recruiting cycle. However, the current offerings of AGSM do enable us to consider students for admission beginning in other terms or on a part time basis. Required courses and sufficient elective courses will be offered every year.
The program requirements will position students well to pursue professional certification as Chartered Financial Analysts (CFA), Certified Financial Planners (CFP), or members of the Global Association of Risk Professionals (GARP).

2.2 Foreign Language

The program has no foreign language requirement.

2.3 Program of Study

2.3. A Field of emphasis

The specific field of emphasis is finance. Within this field, students can use elective offerings to tailor the curriculum to their own objectives.

2.3. B Plan(s)

**Plan I (Thesis)** will not be an option for the Master of Finance program. Given this would be typically a one-year program it is unlikely that a Plan I (Thesis) option will be feasible for students.

**Plan II (Comprehensive Examination)** requires that at least 18 units be in graduate level courses taken at a UC campus. None of these may be in courses numbered 297 or 299. Every candidate must take a comprehensive examination, the content of which is determined by the department or program. In most cases, units from courses numbered 291 cannot be used. Candidates for the degree are required to complete all of the general requirements specified by Graduate Studies. The program conforms to Plan II.

2.3. C Unit requirement

The Master of Finance will be offered as a one year program (48 units) for graduates of a baccalaureate degree in a field that provides sufficient quantitative background to enable successful completion of the program.

2.3. D Required and recommended courses, including teaching requirement

Of the 48 units, 20 units (5 courses) are required electives that are currently offered to MBA students; 8 units (2 courses) are restricted electives where 2 courses must be selected from a list of 3 that are also available to MBA students; 8 units (2 courses) are required courses that are offered to Master of Finance and at the Ph.D. level and are focus on empirical methods in finance; and 12 units (3 courses) are open electives that are selected with the student’s advisor in light of the student’s specific objectives.

**Required courses currently offered to MBA students**

- MGT 201 Quantitative Analysis
- MGT 202 Financial Management
- MGT 211 Financial Accounting
- MGT 231 Corporate Finance
- MGT 227 Fixed Income Securities and Markets

**Restricted elective courses currently offered to MBA students (2 of the following 3 courses)**

- MGT 232 Derivatives and Asset Pricing
- MGT 244 Corporate Risk Management
- MGT 252 Investments and Portfolio Management
**Required courses offered to Ph.D. and Master of Finance students**

- MGT 297F  
  Seminar in Empirical Methods in Finance
- MGT 297G  
  Seminar in Corporate Finance

**Other electives**

- 3 courses

Exhibit 1 contains current catalog copy for all required courses and for selected electives.

All required and restrictive elective courses are currently regularly offered at least annually. During the first year or two of the program, with MBA enrollments at current levels, there is sufficient capacity in these classes to accommodate the needs of the Master of Finance students. Upon approval of the program, the two seminar courses will be offered at least annually and will require staffing. Planned finance hiring is expected to meet the additional staffing needs.

### 2.3. E Certifications

University offerings are distinct from, but complementary to, professional accreditation programs such as the Chartered Financial Analyst and Certified Financial Planner designations. The curriculum is not specifically designed to prepare students for professional certification. However, the coursework does generally help students to pass the Levels I, II, and III CFA designations, as well as some other finance professional designations.

### 2.4 Field Examinations

Students must pass a written comprehensive examination, which is taken in two parts after completion of the two “capstone” seminar courses, MGT 295F and MGT 295G, to receive the degree. The exam will cover the topics taught throughout the entire program. This exam will ensure that all students receiving the degree have internalized the central lessons of the degree.

### 2.5 Qualifying Examinations

There is no qualifying exam.

### 2.6 Thesis and/or Dissertation

A thesis is not an option for the Master of Finance

### 2.7 Final Examination

Each course in the program has a final exam or term paper assignment that is based on the learning objectives for the course.

### 2.8 Explanation of Special Requirements

There are no special requirements.

### 2.9 Relationship of Master’s and Doctor’s Programs

Currently, the School does not offer a Ph.D. in Management with a field in finance. The School does offer a Ph.D. in Management with other fields, but new enrollments are not being accepted currently due to budgetary limitations. It is anticipated that the Master of Finance will help provide funding for launch of a

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3 Students without sufficient background in econometrics may need to take ECON 205A or a similar course as one of their electives.
Ph.D. field in finance and that the two seminar courses offered to students in the Master of Finance will also be taken by Ph.D. students. Moreover, the Master of Finance can both help attract good students to the Ph.D. and provide a soft landing for Ph.D. students who leave that program prior to completing the degree.

Students in the Master of Finance program will take some courses that also are offered to or required of MBA students. Based on our experience with other programs, the more quantitative orientation of finance masters students complements the broader objectives of MBA students and MBA student experience and professionalism in presentations and writing complements the education of the finance masters students. Our prior experience is that when finance masters students and MBA students are combined in classes that require group projects, the students recognize the complementarity and often seek to form teams that include both types of students.

2.10 Special Preparation for Careers in Teaching

The program is not intended to prepare students for careers in teaching. However, strong analytical skills, as well as oral and written communications skills are important in many finance professions. The curriculum uses case-method teaching, individual and group presentations, and professional writing assignments to prepare students for such careers. This preparation is also relevant to students who decide to go beyond the Master of Finance, into a Ph.D. program leading to a career in teaching.

2.11 Sample Program (full-time)

Quarter 1
- MGT 201 Quantitative Analysis
- MGT 202 Financial Management
- MGT 211 Financial Accounting
- Elective

Quarter 2
- MGT 231 Corporate Finance
- MGT 297F Seminar in Empirical Methods in Finance
- Elective
- Elective

Quarter 3
- MGT 227 Fixed Income Securities and Markets
- MGT 297G Seminar in Corporate Finance
- Elective
- Elective

2.12 Normative time from matriculation to degree (full-time)

Plan II students should be able to complete the coursework for this program in one academic year. Required courses and sufficient elective courses will be offered every year. The minimum academic residence in the UC is three quarters, two of which must be spent at the Riverside campus.
Only courses in which grades of “A,” “B,” “C,” or “S” are received may be counted toward satisfying graduate degree requirements. To continue in good standing and obtain an advanced degree, students must maintain a minimum GPA of 3.00. In addition, students must demonstrate acceptable progress toward their degree objectives. This entails the acceptable completion of all course work and other degree requirements in a timely fashion. Students are considered to be making unacceptable progress and become subject to dismissal when
1. They have 12 or more units of “I” grades (incomplete course work) outstanding
2. The overall GPA falls below 3.00
3. The quarterly GPA falls below 3.00 for two consecutive quarters
4. They fail to fulfill program requirements in a timely and satisfactory manner, or
5. They have not completed their within 2 years for full-time students or within 5 years for part-time students.

§ 3.0 PROJECTED NEED

3.1 Student Demand for the Program

Deregulation of financial services in the last three decades, accompanied by seminal conceptual synthesis in financial economics that unleashed unprecedented financial innovation, has led to rapid growth of the financial sector both in the US and elsewhere. Despite the recent financial crisis, there are strong indications that financial sector will continue to remain a critical part of the US economy. Shifts in regulatory regimes are often accompanied by and sometimes precipitate new rounds of financial innovation. The newly enacted regulations in the US and BASEL III in the international arena, and ongoing debate of issues surrounding the financial crisis underscore the importance of advanced professional education in finance.

In brief, globalization, rapid advances in computational technology, unprecedented financial innovation, and shifting regulatory regimes, all contribute to job opportunities for additional finance professionals with education beyond the baccalaureate degree.

The enduring strength of nationwide demand for an advanced master’s degree in finance and an underserved market here in Southern California offer an opportunity to gain an advantage over other Universities in the area. The last two decades have seen rapid growth both in the range of advanced finance degrees available and in the number of schools that have moved to make these programs available.

While we seek to serve the financial sector firms in our geographical area by making available to them a pool of trained finance professionals, we shall not restrict ourselves to admitting only those from Southern California. Expanding the potential market to the pool of students beyond California to the national arena, and beyond US borders to the international arena will ensure that we are able to recruit students who are well-qualified to stand the rigors of the proposed program. As non-residents pay a higher tuition, admitting students from outside California will also have a positive impact on the revenue.

We anticipate that the tuition, fees, and other costs of the program will be comparable to other highly regarded one-academic year finance programs. UCLA’s tuition for 2013 is $53,400; Case Western’s program tuition and fees currently total $49,800; Vanderbilt’s finance program has current tuition and fees of $44,300. The UCR Master of Professional Accountancy degree which launched Fall 2012 tuition is $800 per unit for 48 units for a total of $38,400. The attached financial projections assume the same rate of the UCR Master of Professional Accountancy to be conservative, however, all rates for Fall 2013 will be reviewed in comparison to market and proposed rate increases for all SoBA graduate programs will be submitted to UCOP for approval at the appropriate time.

Evidence from other programs indicates that students with finance masters degrees are able to command materially higher compensation than undergraduates and often higher than MBA students. Generally, the
cost of the degree to the student is normally justified based on anticipated impact on compensation. Given that there is a ready market for finance masters students, scholarship aid in these programs is quite limited, normally around 10 to 15% of total tuition and fees. Scholarship aid is normally awarded competitively. Students who are not employer-sponsored or state-sponsored and who need funding can generally borrow much of the cost of the degree. In addition, because we do not currently have a finance track in our Ph.D. program, we expect that a number of the students will be able to work on campus as teaching assistants, graders, and research assists. Students who take the program on a part-time basis normally do not receive scholarship aid, and usually are working full time and can cover the cost of the program from their compensation.

3.2 Opportunities for Placement of Graduates

Finance executives require increasingly high levels of specialized expertise for professional advancement: A master’s degree or a doctorate is a prerequisite in several specialized fields such as medicine and law for example. As a result of an exponential increase in the knowledge and skills needed for successful discharge of professional responsibilities in the field of finance, industry has come to expect potential entrants to the finance profession to have a command of finance as a structured body of knowledge with its own paradigms that can only be acquired by pursuing an advanced degree in the field.

The regional market is underserved: The Master of Finance program will meet an untapped and growing demand for graduate finance education in the region served by UCR. While the region is not known to have a large financial services sector, it nonetheless does have a significant population of finance professionals who are involved in banking, insurance, investments, financial planning, real estate, and other fields, who could benefit from a specialized Master of Finance degree. Moreover, it is expected to experience the most rapid population growth in the state. SoBA/AGSM is the only graduate school of management affiliated with a major research university in Riverside and San Bernardino Counties.4

Diversity in the Profession: The Program will meet an untapped demand for under-represented minority graduates. Many firms that recruit our graduates have inclusiveness initiatives with a goal of attracting individuals with diverse backgrounds and experiences. UCR has one of the most diverse campuses in the country and is in a unique position to meet the demands of these firms.

The demand for candidates with a master’s degree in finance has been growing since the 1980s, and, as the financial sector emerges from the crisis and starts responding to new regulation, the trend is expected to continue. The Financial Times of London ranks various degree offerings in finance every year, and the fact that 2010 rankings5 list nearly 200 schools all over the world is testimony to the continued strength in the demand for a master’s degree in finance. It is to be noted that the US has been slow to confront the trend toward specialized masters degrees - of the nearly 200 programs listed, only 31 are offered by schools in the US. Among the US programs listed are those offered by UCLA, University of California at Berkeley (among the UCs), Boston College, Boston University, Carnegie-Mellon, Case Western University, Indiana University, Vanderbilt University, and Washington University at Saint Louis, to name a few. UCR will have the distinction of joining Berkeley and UCLA among the UC campuses offering an advanced degree in finance. Most of the programs listed in the Financial Times are on the East Coast, which clearly suggests an open and uncrowded competitive field for UCR in our geographical area.

To put the development of these programs in finance in historical context, the decade of 1970s witnessed great theoretical advances in the field of financial economics. At the same time, advances in computational

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4 Exhibit VIII contains letters of support from representatives of the local finance community.
technology brought about financial disintermediation, which combined with deregulation in the 1980s, contributed to the emergence of the modern financial sector, and the prominent role it has come to play in the US economy. As firms in this rapidly expanding financial sector demanded people who were exposed to the paradigms that gave rise to financial innovation, Universities both in the US and abroad started offering specialized degrees in finance to meet this need.

Financial Times reports statistics on masters-level finance programs of all types. For 2012, they reported program-level salary statistics from 35 schools world-wide, for students without prior experience. The worldwide median was $61,700 and the US median was $69,300. In a separate study, they reported the average three-year increase in salaries for a very limited number of schools as around 55%. The 2012 study also reports that the percentage of graduates who were employed within three months of graduation was typically around 80%.6

To illustrate the types of positions that finance masters students secure, Claremont McKenna College reports the following:

**Class of 2010 Master in Finance Placements**
Caltech Investment Office (Pasadena, CA) – Risk Analyst
Cambridge Associates (Menlo Park, CA) – Analyst
Citi (New York, NY) – Quantitative Trader
Cowen & Co. (San Francisco, CA) – Investment Banking Analyst
Credit Suisse (Los Angeles, CA) – Investment Banking Analyst
DaVita, Inc. (Denver, CO) – Healthcare Analyst
GBM Grupo Bursatil Mexicano (Mexico City, Mexico) – Junior Executive
Hall Capital Partners (San Francisco, CA) – Private Wealth Mgmt. Analyst
Harris, Williams & Co. (San Francisco, CA) – Investment Banking Analyst
Houlihan Lokey (San Francisco, CA) – Investment Banking Analyst
Pivotal Investments, Ltd. (Hong Kong) – Vice President
PMF Group (Los Angeles, CA) – Analyst
Prager, Sealy & Co. (New York, NY) – Trader
Relational Investors (San Diego, CA) – Analyst
Union Bank (San Francisco, CA) – Analyst
Wells Fargo (San Francisco, CA) – Commodities Analyst

Similarly, Boston College reports the following information:

**MSF CLASS OF 2011**

**Salary**
Mean Salary: $74,502
Median Salary: $70,000
Salary Range: $45,000 to $120,000

**MSF EMPLOYMENT 2009-2011**

**Industry**
Consulting
Consumer Goods/Retail
Financial Services
Insurance
Manufacturing

6 See Exhibit V
Representative List of Hiring Companies
HSBC
IM
Barclay’s Capital
Boston Company Asset Management
Cannacord Genuity
Credit Suisse
Deloitte Consulting
Development Bank of Singapore
Duff & Phelps
FDIC
Fidelity Investments
Globant
Hanover Insurance
John Hancock
Marvin Windows and Doors
RBS/Citizens
PriceWaterhouseCoopers
Providence Equity Partners
Staples
bc home > schools > carroll school of management > graduate > msf > careers
Search BC
A–Z B C INFO MAPS DIRECTOR I E S
UBS Wealth Management
Watson Wyatt
Wilmington Trust

3.3 Importance of the Discipline

There are different ways to assess the importance of a discipline. If control over society’s resources is the standard, the importance of the financial sector is obvious. On behalf of individual, financial managers now control over 60% of US equities, almost all publicly issued corporate debt, almost all mortgage debt, and most government debt.

If importance is assessed on the basis of size of workforce employed, the financial sector the financial sector accounts for about 5.3% of non-farm employment or 7.6 million jobs, and, in contrast to other sectors, has a relatively high fraction of professional employment.7

If importance is based on annual earnings, the average earnings of managers in financial firms was $130,400 and of financial managers in financial firms was $122,500 in 2011, compared to the average managerial salary of $107,400 for all sectors. Compared to the average for all occupations in the financial sector of $60,200, the average for business and financial occupations in the sector was $72,200. The averages for financial analysts ($95,300) and personal financial advisors ($91,500), two professions that are particularly well-suited for graduate of the finance masters program, are the highest two paid occupations in the financial sector. Moreover, occupations in finance are not limited to the financial sector as virtually every firm with a moderate number of employees requires a manager who is responsible for the financial operations of the firm.8

If importance is based on the ability of professionals to create or destroy value for society, it would be hard to dispute the importance of the financial sector. By comparison to other countries that are similar in other respects, the financial sector, and in particular, the well-functioning capital markets have contributed to the achievement of the highest standard of living in the world by a wide margin. However, the financial failures are also notorious. In no other sector does it appear to be possible for a single individual to do as much economic damage as in the financial sector.

3.4 Ways in Which the Program Will Meet the Needs of Society

The ability of individuals involved in the financial sector to create or destroy is the most compelling evidence of the importance of well-educated financial managers. The financial engineers who designed the instruments that were so problematic in the 2008 financial collapse are very narrowly trained and, with hindsight, did not recognize the big-picture impacts of their actions. MBA students, on the other hand, while they have a more holistic education, often do not have enough finance education to understand the financial instruments their organizations deal with. Students in the UCR Master of Finance program will have the ability to understand and explain the risks and potential returns of sophisticated financial instruments, but also the breadth of exposure to be better able to manage the exposures for the benefit of society.

Over the last three decades, not only has the financial sector come to occupy a larger part of the US and global economy, the extent of sophistication in the expanding range of services that financial sector firms make available to their clients has also increased. As a result, the number of professionals employed by the financial sector firms to design and market new financial products has expanded. At the same time, the consumers of these new financial offerings need their own set of financial professionals, and it is now routine for non-financial firms to hire risk professionals in the CFO’s office to advise the Chief Financial Officer of the firm to make intelligent choices. Financial Accounting Standards Board (FASB) has recently mandated new rules for expensing Employee Stock Options, and for periodic analysis of impairment of intangible assets. The Sarbanes-Oxley Act has added its own regime of compliance requirements. All these developments have greatly expanded the need for trained finance professionals in the corporate sector as a whole. These trends are likely to be strengthened by new national and international financial regulations that have recently been passed (the Dodd-Franks Act) or are under active consideration (BASEL III). As the financial sector adapts to these changes, the demand for trained finance professionals will grow even further. By moving rapidly we can help UCR graduates to reap the benefits of this expanding demand.

The Master of Finance program will address an unmet need for graduate finance education in Southern California in general and specifically Inland Southern California and is therefore consistent with the School of Business Administration’s mission to service the educational needs of businesses in the region. The program will contribute to our developing a reputation for leadership in U.S. higher education, to recruiting outstanding faculty, and to the diversification of our sources of revenue, which will help the School of Business Administration maintain financial stability and independence and reduce dependence on state funding. The program also fits well with the School of Business Administration’s strategies for building reputation by hiring high quality faculty who demonstrate excellence in both research and teaching.

It is remarkable that apart from UCLA, Claremont McKenna and Pepperdine University are the only other schools in Southern California that currently offer advanced degrees in finance. Southern California is greatly underserved. In contrast, Texas has programs offered by as many as six schools. Schools on the East Coast are in the forefront of development and introduction of specialized graduate degrees in finance. It is only a matter of time before our local competitors will introduce such programs.

3.5 Relationship of the Program to Research and/or Professional Interests of the Faculty
The emphasis, in the SoBA strategic plan was developed partly on the basis of the empirical orientation or the finance faculty and partly on the value that the faculty recognizes in making sure that graduates of our programs are empirically well-trained in finance and are capable of empirical analysis at appropriate levels for their degrees. The Master of Finance program fits well with the strategic plan and with the empirical orientation of our faculty, and contrasts with the emphasis of other UC finance programs on computational finance and statistical processes.

Moreover, the focus on empirical finance in the program will help to support finance databases that are important to the finance research activities of the faculty, will provide competent research assistants, and will help to provide funding for the eventual launch of the finance track of the management Ph.D. program.

3.6 Program Differentiation

To meet the expanding need for advanced skills in risk management and derivatives pricing, Master in Financial Engineering (MFE) was among the first new degree in finance that Universities have begun to offer. Berkeley, and UCLA, the two UC campuses that offer advanced degrees in finance, both offer an MFE. More theoretical programs call their offering a Master in Financial Economics, while programs more focused on computational applications offer a Master’s in Computational Finance (MCF). Master of Quantitative Finance (MQF), Master of Science in Financial Services (MSFS) are some of the other degrees.

§ 4.0 FACULTY

The strength of UCR Faculty is in empirical finance, and we propose to position our degree offering accordingly. The Master of Finance that SoBA will offer is designed to provide overview of the entire field of finance, with an emphasis on empirical methods and applications, and with elective offerings that draw upon the strengths of our faculty.

BRIEF BIOGRAPHY OF THE FINANCE FACULTY9

1. Richard Smith: Professor Richard Smith has spent a lifetime devoted to the study of finance, having lectured on international venture finance and entrepreneurship in the context of economic growth, and researched such topics as the impact of the SEC’s Fair Value Standard on illiquid assets held by mutual funds. He co-authored Entrepreneurial Finance (Wiley, 2004, 2ed.), which many consider the definitive text on the subject. He also co-authored Entrepreneurial Finance: Strategy, Valuation, and Deal Structure (Stanford University Press, 2011). In addition, he has published over 35 journal articles and other research papers on an array of finance and economics topics. He is often consulted for his broad knowledge of the field.

2. Peter Chung: Professor Peter Chung received his Ph.D. in finance from Ohio State University, an M.B.A. in finance from California State University, Los Angeles, and a B.S. in international trade as well as in foreign service from Sogang University in Korea. His research interests include continuous-time modeling, contingent claim valuation, corporate finance and investments, market microstructure, international finance, and emerging capital markets and investments. Professor Chung has been published in numerous journals such as the Journal of Finance, the Journal of Banking and Finance, and the Journal of Financial and Quantitative Analysis, to name a few.

3. Thomas Kim: Thomas Kim earned his Ph.D. in finance at the Owen Graduate School of Business at Vanderbilt University. He earned his M.B.A. in finance from the University of Texas at Austin, and his B.A. in economics from Seoul National University. His research interests include financial markets, investments,

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9 Exhibit IX contains full c.v.s.
5. David Mayers is a professor emeritus of finance at the University of California, Riverside's School of Business Administration. He received his Ph.D. in business administration from the University of Rochester, his M.B.A. from the University of California, Berkeley, and his B.S. in engineering from the U.S. Naval Academy, Annapolis. His research interests include corporate finance and investments, asset pricing, portfolio performance evaluation, corporate financial policy, and insurance. He has been published in numerous journals, including the Journal of Financial Economics, the Journal of Business, and Economic Inquiry, to name a few.

6. Michael Moore: Michael Moore earned his Ph.D. and M.S. from Pennsylvania State University and a B.A. from the University of Washington. He is a certified public accountant. After receiving his Ph.D., Michael joined the faculty of the University of Texas at Austin where he remained for eight years. He was recruited from Texas by the University of Southern California where he served on the faculty for 16 years, seven years as a professor and nine years as the Kenneth Leventhal Professor. He was also director of the Masters of Business Taxation Program. He left USC to serve as chairman of the department of accounting at Colorado State University from 1995 to 1997. In 1997 he left academia for public accounting practice where he was a partner with Hull, Ruhl & Moore for 10 years. During his academic career he has taught accounting and taxation at the undergraduate and graduate levels and has been involved with curriculum design and implementation. He has published extensively in taxation and accounting and has research interests on international topics. Professor Moore is co-author of U.S. Tax Aspects of Doing Business Abroad, now in its sixth edition. His published work has appeared in the Journal of Accountancy, the Journal of the American Taxation Association, The Accounting Review, the Journal of Accounting Research, and the International Tax Journal, among others. He has twice been the recipient of the American Taxation Association’s Award for Best Tax Manuscript. He has served on numerous advisory boards and editorial review boards, including the International Tax Journal, and on a number of committees of the American Institute of Certified Public Accountants, the American Taxation Association, and other academic organizations. He is past president of the American Taxation Association. In addition to his experience in public accounting practice, he has been involved in litigation support services in tax and accounting matters and professional standards of practice. He is currently on the board of directors of two nonprofit organizations and has additional duties as treasurer and financial officer.

7. Woody Liao: Woody Liao received his Ph.D. in accounting from the University of Florida in 1974 and his MBA from Illinois State University in 1970. He is a CPA and CMA. Before joining UCR in 1991, he taught at the University of Houston from 1978 to 1990 and was the director of the Ph.D. program in accountancy & taxation from 1985 to 1990. He also taught at VPI & State University from 1974-1978. His areas of expertise and research interests are: management planning and control systems; corporate governance, executive compensation, and earnings management; and risk management and performance evaluation. He has
published papers in leading accounting journals such as The Accounting Review; Contemporary Accounting Research; ABACUS; Management Accounting; Accounting Horizons; Behavioral Research in Accounting; International Journal of Accounting; Journal of Business, Finance, and Accounting; Accounting and Business Research; Journal of Accounting Literature; and Decision Sciences. He teaches courses in managerial accounting, financial accounting, intermediate accounting, and advanced management accounting. He has served as visiting professor and speaker at University of Hawaii, Naval Postgraduate School, National Chung Hsing University in Taiwan, and Chinese University and Hong Kong Polytechnic University in Hong Kong. He was named a "Prolific Author in Accounting" in 2002.

8. Birenda Mishra: Birendra (Barry) K. Mishra received his Ph.D. in accounting from the University of Texas at Austin in December 1996. Prior to that, Professor Mishra earned his B.S. in mining engineering from NIT Rourkela and his M.S. in petroleum engineering from the University of Texas at Austin. Professor Mishra’s research interests include the areas of accounting disclosure, management and control, operational risk, and information systems security and open source software. He uses a variety of methodologies including game theory, agency theory, and econometric models. He has published articles in major journals including the Journal of Accounting Research, The Accounting Review, Management Science, Marketing Science, Information Systems Research, and IEEE Transactions. Professor Mishra teaches courses in managerial, financial and accounting information systems. Recently he has been awarded the AICPA grant to study internal control risk using strategic framework.

9. Ted Mock: Prior to joining SoBA, Ted Mock served as a professor of accounting at the University of Southern California and professor of auditing research at Maastricht University in the Netherlands. From 1982 to 2006 he served as the Arthur Andersen Alumni Professor at USC. In 1983 he helped found the USC Audit Judgment Symposium (now the International Symposium on Audit Research). Professor Mock has visited many universities worldwide including the University of Otago in New Zealand as a Fulbright Scholar; the Norwegian School of Economics and Business, Bergen, Norway; Maastricht University as a Fulbright Scholar; Nanyang Technological University as Shaw Foundation Professor; The Australian National University; and The University of Melbourne. Professor Mock’s research interests lie primarily in the areas of audit judgment, assurance services, and evidential reasoning. During 1977 to 1978, he was the first audit research fellow at KPMG in New York City. His AICPA research monograph with J. Turner on internal control evaluation was awarded the American Accounting Association Wildman Award and he was a co-author of the American Institute of Certified Public Accounts (AICPA) monograph on collaborative audit research that received the 1998 Joint AICPA/AAA Collaboration Award. In 2003 he received the American Accounting Association’s Auditing Section Outstanding Auditing Educator award, and in 2006 the AAA Accounting and Behavior and Organization Section’s Notable [Lifetime] Contribution Award.

10. Rosemary Kim received her Ph.D. in information systems & technology from Claremont Graduate University and has been teaching for UC Riverside since 2010. She holds an MBA from the University of Southern California and has thirteen years of experience working for various multinational corporations in the areas of accounting and auditing, finance, and information systems.

Professor Kim joins UCR with several years of teaching experience in both undergraduate and graduate levels and has background in curriculum design and use of learning management systems for course development. Her research focuses on social learning platforms, impact of systems and technology on collaboration and knowledge management, and emerging technologies in accounting information systems. She recently co-authored a chapter for a communication management book, Management Communication: An Anthology. Additionally, she is a member of the Social Learning Software Lab at Claremont Graduate University where research is focused on the design and implementation of tools to promote social learning.
11. Bajis Dodin joined UC Riverside's School of Business Administration in 1984 and has been a member of the faculty ever since. His teaching and research focus on operations management (OM) and project management (PM). He uses operations research (OR) methods in solving practical as well as theoretical problems in the areas of scheduling and PM and their applications. His publications have appeared in leading journals in the fields of OR and OM, including: *Operations Research, Management Science, IIE Transactions*, *European Journal of Operational Research*, and *Accounting Review*, among others. His tenure at SoBA includes a number of administrative and faculty governance assignments, including: chairman of the business administration program for 11 years, associate dean for academic affairs (1996 to 2000), associate dean for the undergraduate business program (2000 to 2003), and chairman of the business school faculty. He has also served as director of the UC Education Abroad Program Center in Cairo from 2003 to 2006.

12. Mohsen Elhafsi received both Ph.D. and M.S. in 1995 from the industrial and systems engineering department at the University of Florida and was FKF Honor Graduate. He received a "Qualified Engineer" degree from the Ecole Nationale d'Ingenieurs de Tunis, Tunisia, in 1988. In 1996, he joined SoBA as a visiting assistant professor and became a tenure-track faculty member in 1997. In 2002, he was promoted to associate professor. He was awarded the prestigious Fulbright Fellowship for the 2006 to 2007 academic year to spend his sabbatical year in France at the Ecole Centrale de Lille, one of France's elite engineering schools. There he worked with host researchers at the Industrial and Logistics Laboratory on supply chain management issues ranging from coordination to performance measures and assessment. In 2007, he was awarded a $10,000 COR Research Fellowship (a fellowship program administered by the Academic Senate Committee on Research) for his proposal to work on supply chain issues related to contract manufacturing. His areas of research include operations and supply chain management, manufacturing and service operations, and production and inventory systems. He is the author of numerous articles that have been published in peer-reviewed journals such as: *Management Science, IIE Transactions, European Journal of Operational Research, Production and Operations Management*, and *Global Optimization*.

13. Long Gao earned his Ph.D. in business administration and operations research from Penn State University, and his M.E. and B.E. in engineering physics from Tsinghua University in Beijing, China. His research interests include supply chain management, stochastic modeling of manufacturing and service systems, Markov decision processes, and simulation. He has published in journals such as *Management Science*, and *Production and Operations Management*.

14. Elodie Adida Goodman joined the School of Business Administration of the University of California at Riverside as an assistant professor of management science in 2012. Previously, she was assistant professor of industrial engineering at the University of Illinois at Chicago from 2006 to 2012. She holds a Diplôme d’Ingénieur from Ecole Centrale Paris, France (2002) and a Ph.D. in operations research from MIT (2006). Her research interests are on the modeling and solution of optimization problems in a variety of areas, in particular those involving game theory. Her recent work includes supply chain, influenza vaccine supply chain, pricing and inventory management and disaster planning.

15. Yunzeng Wang joined the faculty of the UCR School of Business Administration (SoBA) in July 2008 as the Dean’s Distinguished Scholar in Supply Chain Management and Professor of Finance and Management Science. He has served as Associated Dean of Academic Programs. Prior to his interim deanship, he has served as the acting dean of SoBA.

Previously, Dean Wang served on the faculty of the Weatherhead School of Management at Case Western Reserve University (1999-2006), and then on the faculty of the School of Management at The University of Texas at Dallas (2006-2008). At UT-Dallas, he developed successful graduate programs in supply chain
management, in particular serving as the founding director of the Master Degree Program in Supply Chain Management as well as the director of the Ph.D. Program in Operations Management.

Dean Wang studied at the Wharton School at the University of Pennsylvania from 1993 to 1997 and obtained his Ph.D. degree in operations management. Prior to moving to the United States in 1993, he studied at the University of Waterloo in Canada, and obtained a master's degree in management sciences. Dean Wang also holds a bachelor's degree in electrical engineering from Shandong University in China, and a master’s degree in engineering management from the Harbin Institute of Technology in China.

Dean Wang’s research interests include supply chain management, technology acquisition and adoption strategy, US-China economic development and trade, stochastic optimization, and game theory. An internationally known scholar in the field, Dean Wang is frequently invited as an expert speaker by top research universities around the world and by various professional organizations. He has published over 30 academic journal articles and invited book chapters. Dean Wang serves as a senior editor of Production and Operations Management, associate editor of Decision Science Journal, and associate editor of IIE Transactions. In addition, he serves on the editorial review boards of six other academic journals. Dean Wang has consulted for many US and international firms, including IBM, Dell, Caterpillar, Ford, the US Navy, Teradyne, Rockwell Automation, and Applied Materials. Dean Wang is the 1998 recipient of the prestigious George Dantzig Prize from the Institute for Operations Research and Management Sciences (INFORMS), for the theoretical contributions of his research and its relevance to management practice.

§ 5.0 COURSES

As presented in Exhibit III, in the first quarter of Master of Finance degree program, students will be expected to take core courses in quantitative methods, finance, and financial accounting. This grounding is sufficient to expose students, in the second quarter, to two main sub-fields of finance: corporate finance and asset pricing. In the final quarter, the students are expected to build on what they learned in the second quarter by taking more advanced courses in the two areas, such as Corporate Risk Management, and Fixed Income Securities. The students are expected to choose an elective both in their second and third quarter of study from an extensive range of electives, such as International Finance, Entrepreneurial Finance, Decision-making Under Uncertainty, and Financial Strategy and Corporate Control in Finance, in addition to relevant courses such as Financial Statement Analysis, Advanced Financial Accounting, Applied Business Forecasting, etc. from other disciplines in Business.

Students should be able to complete the coursework for this program in one academic year. Admission is intended to be primarily in the fall quarter in order to match graduation timing with the normal recruiting cycle. However, the current offerings of AGSM do enable us to consider students for admission beginning in other terms or on a part time basis. Required courses and sufficient elective courses will be offered every year.

§ 6.0 RESOURCE REQUIREMENTS

The School of Business Administration currently has a reserve that will allow it to launch and market this program without having to reduce funds allocated to existing programs, hiring initiatives or request start-up funds from the university. To launch the program, time will be required from current faculty for program development. All of the courses that will be offered are already developed and most are currently taught in AGSM’s MBA program. There is sufficient excess capacity in the classes that are currently offered to absorb the start-up enrollment without adding sections.
The UCR School of Business Administration was approved to hire 5 new faculty who began Fall 2012 and an additional 6 new faculty to start Fall 2013. The new faculty will teach in the following disciplines: Finance (1); Accounting (2); Management (5); Management Science (1); Marketing (1); and Information Systems (1).

The School of Business Administration has developed financial projections for the proposed Master of Finance program based on conservative assumptions. We plan to offer this program using the self-supporting model with a per credit fee. The Financial Projection shown in Exhibit II assumes an initial class size of 10 and a steady growth at a rate of 10 students per year. We believe that we can deliver a high quality program to as many as 50 students per year utilizing current resources.

Assumptions regarding marketing costs and incremental costs of instruction are detailed in our Financial Projection shown in Exhibit II.

Based on the experience of other specialized masters programs in finance, the Master of Finance program is expected to grow steadily. In the Financial Projection shown in Exhibit II, we have projected steady growth at a rate of about 10 students per year. While student FTE growth is always subject to uncertainty, the program is structured to be cash flow positive even if the growth targets are not achieved as quickly as projected. Moreover, there is significant potential that these projections will be exceeded due to the high demand for specialized master’s degrees in finance and the near absence of significant local competition.

As presented in detail in the Financial Projection, the Master of Finance degree program can be launched at minimal expense including direct costs of $20,000 stipend for the Academic Program Director and $25,000 for marketing. Existing staff at SoBA are expected to have the capacity to contribute to the administrative and recruitment effort for the new degree at the initial launching stage. However, to follow the UC Policy on Self-Supporting Graduate Degree Programs the financial projection has allocated indirect costs based on student credit hours of all programs offered at UCR in the School of Business.

The finance faculty already offers a comprehensive range of required and elective courses in finance, accounting, and statistics to MBA students. As discussed in Exhibit III (Courses), the curriculum of the new degree will be fashioned out of the existing menu of course offerings.\(^\text{10}\) We plan to add special Master of Finance sections to these courses only as we are justified in doing so by demand and constraints on the capacity of the MBA program.

Because we initially can leverage the staff support of the existing MBA program, the Master of Finance program is expected to generate a positive cash flow from its inception. As the program grows and begins to generate its own revenue stream, it is envisaged that additional support staff will be hired to accommodate the growth, including student recruitment and application oversight. The Financial Projection shows conservative growth in number of students, as well as conservative fee per unit which is increased by approximately 6% per year. The SoBA MBA Professional Development fee has shown a 7% increase per year for the past several years. The Master of Finance program will incur direct expenses for marketing, stipend for the Academic Program Director, UCOP overhead assessment and UCR overhead assessment (after Year 3). In addition, a minimum of 10 percent of gross fee revenue will be allocated to financial aid for the Master of Finance students. As the program grows we anticipate increasing the allocation to financial aid as shown in the Financial Projection. In addition, indirect costs will be allocated based on student credit hours of all programs offered at UCR School of Business. This allocation of indirect costs is to comply with the UC Policy on Self-Supporting Graduate Degree Programs. As all SoBA Graduate programs grow additional faculty and staff will be hired to accommodate the growth and provide a quality education. These costs will be allocated

\(^{10}\) We may have to offer an additional section of MGT 202 in the Fall, the cost of funding which with a lecturer is minimal.
to all UCR School of Business programs, as well as additional classroom support, instructional databases, program operations and administrative costs (as displayed in the Financial Projection). The Master of Finance program will be subject to continuous review by the faculty of the School of Business Administration. Reasons for deviations between projected and actual enrollments will be examined and revisions to the program and to financial projections will be made as appropriate.

The Master of Finance program will enhance SoBA’s net revenues, help build the resource base, diversify existing sources of revenue, and reduce dependence on state funding. In the short-run, revenue generated by the program will help address the current budget challenges of the School. Longer-term, the program revenues will contribute to improvement of the educational experience of students in all of the degree offerings of the School.

Alumni and Development: Graduates of the Master of Finance program have the potential to become influential and supportive alumni soon after they complete their degree. Based on the experience of similar programs at other schools, including the experience of some of our own faculty, recent graduates tend to become important contributors and resources for the programs within months of completion of their graduate degrees. The Master of Finance program will facilitate development of stronger relationships with the corporate and professional communities, especially, but not exclusively in the financial sector. It is anticipated that most students in the program will be recruited for important positions after graduation.

§ 7.0 GRADUATE STUDENT SUPPORT

The Master of Finance Program will offer graduate student support by reserving 10% of the gross fee revenue for student financial aid. As the program grows we anticipate increasing the allocation to financial aid as shown in the Financial Projection in Exhibit II. In addition, the SoBA Development officers will strive to attain donor commitments for scholarships for the Master of Finance graduate students.

§ 8.0 GOVERNANCE

The program will be directed by the Faculty of the School of Business Administration through its Executive Committee and a Graduate Programs Committee, which have oversight responsibility for all Graduate Programs offered by SoBA.

Several firms in the financial sector in our geographical area have expressed keen interest in working together with the school. We can harness this interest by inviting senior executives of prominent financial sector firms in the area to serve on the advisory board for the program. The resulting coordination will lead to a closer relationship with future employers of graduates of the program. These senior executives serving on the advisory board will be available for events such as formal talks, and occasional classroom visit for a case discussion or select topic on real-world experience. These events will enrich the experience of students in all programs offered at the school.

§ 9.0 CHANGES IN SENATE REGULATIONS

The Master of Finance program will not require any changes in Senate Regulations at the Divisional level or in the Academic Assembly.
EXHIBIT I

COURSE DESCRIPTIONS OF REQUIRED AND SELECTED ELECTIVE COURSES

Required Courses available to Master of Finance and MBA students:

MGT 201. Quantitative Analysis (4) Lecture, 3 hours; discussion, 1 hour. Prerequisite(s): MGT 403 or equivalent; familiarity with Microsoft's Excel spreadsheet software. Addresses the process of generating decision-making information from data and solving management problems using common computer tools. Covers problem identification and formulation, model selection and use, and interpretation of the results of statistical analysis. Topics include estimation, hypothesis testing, analysis of variance, simple and multiple regression, time series, and forecasting. May not be taken for degree credit by students in statistics undergraduate or graduate programs.

MGT 202. Financial Management (4) Lecture, 3 hours; extra reading, 1.5 hours; outside projects, 1.5 hours. Prerequisite(s): MGT 201, MGT 211, or equivalents. Provides a foundation in theories of finance. Topics include time value of money, security valuation, financial institutions, theories of risk measurements, managing a firm's investment decisions, capital structure, and sources of financing for a firm.

MGT 211. Financial Accounting (4) Lecture, 3 hours; outside research, 3 hours. Prerequisite(s): graduate standing or consent of instructor. Covers financial accounting concepts and the analytical tools needed to understand and interpret financial statements. Examines the uses of financial accounting information.

MGT 227. Fixed-Income Securities and Markets (4) Lecture, 3 hours; extra reading, 1.5 hours; outside projects, 1.5 hours. Prerequisite(s): MGT 201. Covers analytical techniques related to fixed-income securities. Includes basic analytical tools in fixed-income markets. Topics include relative pricing of fixed income securities, yield-curve estimation, securities with embedded options, and trading strategies. Utilizes interest rate swaps, mortgage-backed securities, and credit derivatives.

MGT 231. Corporate Finance (4) Lecture, 3 hours; extra reading, 1.5 hours; outside problem sets, 1.5 hours. Prerequisite(s): MGT 202. An intensive analysis of the effects of corporate financial policy decisions on firm value. Examines the interrelation of firm value, financing policy, investment decisions, and other considerations. Provides an understanding of the theoretical issues involved in the choice of these policies.

Restricted Elective Courses

MGT 232. Derivatives and Asset Pricing (4) Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): MGT 202. Explores the pricing of derivatives-based securities. Covers various topics in derivatives markets. Introduces pricing techniques for forwards, futures, options, swaps, and other derivatives. Utilizes empirical data and financial modeling.

MGT 244. Corporate Risk Management (4) Lecture, 3 hours; written case analyses and reports, 3 hours. Prerequisite(s): MGT 202. Provides an overview of derivative financial instruments. Focuses on the use of derivatives to manage risk in a corporate setting. Utilizes the case-method to develop strategies and policies for managing the risk exposure of an enterprise, as well as to assess the relations between risk management and value creation.

MGT 252. Investments and Portfolio Management (4) Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): MGT 202. Discusses standard asset pricing models, portfolio theory, and empirical uses of securities data. Addresses pricing in the capital markets and empirical issues in testing asset pricing models. Other topics include risk-adjusted portfolio performance, term structure, bond pricing, and bond portfolio management.

Required Seminar Courses Open to Master of Finance and Ph.D. Students¹

¹ The two seminar courses are approved on campus but have not been offered for fiscal reasons and because the School does not currently offer a Ph.D. in Management with a field in finance. Upon approval of the MA in Finance program, students in the program who have satisfied appropriate prerequisites will be approved for admission to the required seminar courses. At that time, catalog copy will be amended as appropriate.
MGT 295 (E-Z). Seminars in Finance (4) Seminar, 3 hours; individual study, 3 hours. Prerequisite(s): doctoral standing in Management or consent of instructor. Topics include discrete and continuous time asset pricing theory and portfolio choice; empirical research in finance (including recent developments in empirical asset pricing); and advanced topics in corporate finance theory and related empirical research.

MGT 295F. Empirical Methods in Finance (4) Seminar, 3 hours; individual study, 3 hours. Prerequisite(s): ECON 205A or equivalent or consent of instructor; doctoral standing in Management or consent of instructor. Covers econometric approaches to analyzing common problems encountered when conducting empirical research. Focuses on hypothesis testing, specification tests, general methods of moments estimation, the capital asset pricing model, multifactor asset pricing models, event studies, operating performance studies, simultaneous equations models, and endogeneity issues. Demonstrates programming in SAS and/or Gauss.

MGT 295G. Corporate Finance (4) Seminar, 3 hours; individual study, 3 hours. Prerequisite(s): doctoral standing in Management or consent of instructor. Deals with the contemporary issues in corporate finance. Focuses on selected classic and current empirical and theoretical research in corporate finance. Seeks to provide an advanced and rigorous background in the mainstream issues of modern corporate finance with an emphasis on empirical methodology.

Example Elective Courses

MGT 221. Decision Making Under Uncertainty (4) Lecture, 3 hours; outside projects and extra reading, 3 hours. Prerequisite(s): MGT 207 or consent of instructor. Introduces basic tools for using data to make informed managerial decisions under uncertainty. Addresses modeling, performance evaluation, and optimization of systems with uncertain parameters. Topics include Markov chains, Markov decision processes, and probabilistic linear and dynamic programming. Applications are drawn from operations, finance, marketing, and other management fields.

MGT 237. International Financial Management (4) Lecture, 3 hours; extra reading, 1 hour; outside projects, 2 hours. Prerequisite(s): MGT 202. Focuses on the nature, risks, and management of foreign exchange exposure in a corporate setting. Covers trade and international investment theories. Topics include the international financial systems, balance of payments, foreign exchange markets, measurement of foreign exchange risk, hedging, international asset pricing, and trade financing.

MGT 239. Simulation for Business (4) Lecture, 3 hours; outside projects and extra reading, 3 hours. Prerequisite(s): MGT 201, MGT 205. Introduces computer simulation as a tool for analyzing complex decision problems. Analyzes and discusses the theory and practice of modeling through simulation. Topics include modeling uncertainty and collecting input data, basic simulation principles, Monte Carlo simulation techniques, model verification and validation, and analysis of simulation output. Examines applications in manufacturing, finance, health services, and public policy.

MGT 245. Financial Statement Analysis (4) Lecture, 3 hours; outside research, 3 hours. Prerequisite(s): MGT 211 or consent of instructor. Explains the role of financial statement analysis in an efficient capital market. Data from financial statements of major corporations is analyzed to develop skills necessary to interpret financial accounting information. Designed for future professionals who will be intensive users of financial accounting reports (e.g., security analysts, credit analysts).

MGT 267. Applied Business Forecasting (4) Seminar, 3 hours; outside project, 3 hours. Prerequisite(s): MGT 201 or equivalent. Provides experience in developing forecasting models and applying them to problems in marketing, production, inventory management, business economics, and other fields. Discusses issues in data acquisition, data analysis, modeling of relations between variables, trend analysis, and seasonal forecasting. Uses case studies and applications from a variety of management areas.

MGT 268. Entrepreneurial Finance and Venture Capital (4) Seminar, 3 hours; extra reading, 1 hour; case studies, 2 hours. Prerequisite(s): MGT 202. Covers financing of nonpublic and early-stage venture. Includes financial modeling, cash needs assessment, valuation, deal structure, financing alternatives, and harvesting.

MGT 274. Special Topics in Finance (4) Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): MGT 202. Explores the latest developments in theoretical and empirical finance. Topics include asset pricing, performance evaluation, derivative securities, market microstructure, corporate finance, and corporate control and governance.

MGT 276. Financial Strategy and Corporate Control (4) Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): MGT 202. Covers the nexus among finance, strategy, governance, and corporate control. Examines the theory and empirical evidence for
models of corporate financial policy and the market for corporate control. Emphasizes critical evaluation of the evidence for different models of corporate financial policy.

**MGT 277. Advanced Financial Accounting (4)** Seminar, 3 hours; outside research, 3 hours. Prerequisite(s): BUS 165C or equivalent (may be taken concurrently). Covers advanced financial accounting and reporting practices. Emphasizes topics such as consolidated financial statements, branch accounting, foreign transactions, segment reporting, partnership accounting, and accounting for nonprofit organizations.
Assumptions:

1.) Revenue per credit unit is initially $800 based on the current per credit fee for the UCR Master of Professional Accountancy program. The credit unit fee conservatively increases approximately 6% increase per year.

2.) Student FTE is projected to be 10 in the first year, increasing at a rate of 10 per year thereafter. These levels and growth rates are conservative relative to other programs. The first year FTE projection assumes that we are able to launch a website and promote the program prior to January 1, 2013.

3.) UCOP assessment is estimated at the original 1.7%. An estimated increase of .15% per year is in the Financial Projection.

4.) The UCR overhead charge is waived the first three years per UCR policy. We have estimated the UCR overhead rate at 8% of gross revenue for Year 4 & 5.

5.) To comply with UC Policy on Self-Supporting Graduate Degree Programs SoBA is proposing to allocate all costs that cross UCR School of Business programs by student credit hours in each program\(^1\); this includes faculty, lecturers, and administrative costs. The UCR School of Business Undergraduate program currently is approximately 90% of the total student credit hours; leaving the remaining 10% of the indirect costs to be allocated to the Graduate programs. Costs that cross only the SoBA Graduate programs will be allocated by graduate student credit hours in each graduate program. As the Graduate programs grow the cumulative cost allocation will increase above 10%.

6.) The incremental cost of faculty and lecturers during the first 2 to 3 years includes the cost of staffing the two dedicated Master of Finance courses. The Financial Projection accounts for additional faculty, classroom support, instructional databases and program support to accommodate the projected growth.

---

\(^1\) Proposal for allocation method to be submitted to UCR Budget Office for review and approval.
### Master of Finance Budget Projection

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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<td></td>
<td>$384,000</td>
<td>$816,000</td>
<td>$1,296,000</td>
<td>$1,824,000</td>
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<tr>
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<td>$0</td>
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<td>Total Revenue</td>
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<td>1.85%</td>
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<td>PROGRAM-BASED STUDENT SUPPORT</td>
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<td>$122,400</td>
<td>$259,200</td>
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<td>FINANCIAL AID 10%</td>
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<td>$122,400</td>
<td>$259,200</td>
<td>$456,000</td>
<td>$720,000</td>
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<td>$950,120</td>
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<td>$181,044</td>
<td>$345,888</td>
<td>$550,364</td>
<td>$432,800</td>
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</table>

Indirect Costs are allocated based on School of Business FY13 projected expenditures and allocated by projected student credit hours in each program.

Direct Costs to Program:

1. UCR Overhead waived Yrs 1-3 per campus policy. Year 4 and beyond estimated at 8% of gross fee revenue.
2. Financial Aid @ 10% of tuition per student.
EXHIBIT III
COURSE SCHEDULE AND COURSE STATUS

Sample Program (full-time)

Quarter 1
• MGT 201 Quantitative Analysis  MBA Core Course
• MGT 202 Financial Management  MBA Core Course
• MGT 211 Financial Accounting  MBA Core Course
• Elective

Quarter 2
• MGT 231 Corporate Finance  MBA Finance Elective Course
• MGT 297F Seminar in Empirical Methods in Finance  MFin Course
• Elective
• Elective

Quarter 3
• MGT 227 Fixed Income Securities and Markets  MBA Finance Elective Course
• MGT 297G Seminar in Corporate Finance  MFin Course
• Elective
• Elective
EXHIBIT IV

ACADEMIC DEGREE PROGRAM PROPOSALS: INFORMATION REQUIRED BY CPEC

1. Name of Program:
   Master of Finance

2. Campus:
   University of California Riverside

3. Degree/Certificate:
   Master's Degree

4. CIP Classification: (to be completed by the Office of the President)

5. Date to be started:
   September 1, 2012 or sooner, if feasible

6. If modification of existing program, identify that program & explain changes.
   Not Applicable.

7. Purpose (academic or professional training) and distinctive features (how does this program differ from others, if any, in California?)
   
   Program Differentiation
   
   There is a large and increasing demand and professional need for specialized masters programs in finance. Whereas many such programs have been established and are operating successfully in the eastern United States, California and the west have been slow to develop specialized master’s degrees in finance. To date, only UCLA and UC Berkeley offer specialized finance masters degrees. They both offer degrees in financial engineering. UCR will be unique in the UC system in offering a Master of Finance. The specific positioning of this degree is for students who desire a more specialized graduate education than is provided by an MBA, with substantially more depth in finance; but who are not well suited for or do not seek the very technical kind of graduate finance education that is represented by financial engineering degrees (such degrees place heavy emphasis on applied mathematics and are most closely aligned with degrees in physics or time series statistical processes. The UCR Master of Finance is positioned between these two extremes. The program is designed develop sophisticated financial expertise including modeling, valuation, financial decision making, and financial planning. There are few other schools in California that offer degrees that are similar in focus. In Southern California, the only specialized finance degrees we know of are at UCLA, Claremont, and Pepperdine.

8. Type(s) of students to be served:
   
   The Master of Finance will be offered as a one year program (48 units) for graduates of a baccalaureate degree in a field that provides sufficient quantitative background to enable successful completion of the program. Appropriate undergraduate majors include business, engineering, mathematics, statistics, and physics, among others. Students admitted to the program will have an academic profile somewhat different from those likely to be admitted to other master’s level programs in the Anderson Graduate School of Management. In particular, the MA in Finance places substantially greater emphasis on quantitative background as reflected in undergraduate degree, courses taken, and scores on quantitative portions of admissions tests. Compared to the MBA, the Master of Finance places less emphasis on work experience, though over time we expect that the cohort will include individuals with significant relevant work experience.

9. If program is not in current campus academic plan give reasons for proposing program now:
There are at least eight compelling reasons why the School of Business Administration, the Anderson School, and the Department of Finance and Management Science should launch this new degree program at this time:

- Finance executives require increasingly high levels of specialized expertise for professional advancement.
- The regional market is underserved.
- The Master of Finance will be an immediate source of net revenue.
- The program will enable us to build critical mass in the faculty.
- The program will increase the prospects for earning finance accreditation from The Association to Advance Collegiate Schools of Business (AACSB International).
- The program is congruence with the UCR and SoBA strategic plans.
- Graduates of the Master of Finance program have the potential to become influential and supportive alumni soon after they complete their degree.
- The Program will meet an untapped demand for under-represented minority graduates.

10. If program requires approval of licensure board, what is the status of such approval?
   Not Applicable

11. Please list special features of the program:
   - Specialized graduate level finance education
   - Significant complementarities with existing programs of SoBA
   - Will provide an important funding source for databases that are essential to finance research.

12. List all courses required:

   All courses are currently offered by the SoBA

   **Quarter 1**
   - MGT 201 Quantitative Analysis
   - MGT 202 Financial Management
   - MGT 211 Financial Accounting

   **Quarter 2**
   - MGT 231 Corporate Finance
   - MGT 232 Derivatives and Asset Pricing
   - Elective

   **Quarter 3**
   - MGT 227 Fixed Income Securities and Markets
   - MGT 244 Corporate Risk Management
   - MGT 252 Investments and Portfolio Management
   - Elective

15. List any related program offered by the proposing institution and explain relationship.
We anticipate that the program will help us to attract good candidates to the School’s Ph.D. program in management.

16. **Summarize employment prospects for graduates of the proposed program.**

The program will educate individuals for employment in all parts of the financial sector and for financial positions in non-financial firms. The experience of our faculty with other programs is that opportunities for professional employment are excellent and that it is possible to develop a virtuous cycle where recent graduates who are placed become ambassadors for the program, helping to place subsequent graduates.

17. **Give estimated enrollment for the first 5 years and state basis for estimate.**

We project 10 students in the first year, increasing by 10 per year to reach 50 in five years.

18. **Give estimates of the additional cost of the program by year in each of the following categories: FTE Faculty, Library Acquisitions, Computing, Other Facilities, Equipment. Provide brief explanation of any of the costs where necessary.**

Exhibit II of the full proposal contains our financial projections.

19. **How and by what agencies will the program be evaluated.**

The program will be evaluated by the AACSB at UCR’s next accreditation review.
EXHIBIT V
MARKET INFORMATION ON FINANCE GRADUATE PROGRAMS
Financial Times Global Masters in Finance 2012 - post-experience programmes

Trends in financial education

Edhec and Guanghua in pre-experience rankings

Masters in Finance

Financial Times Global Masters in Finance 2012 - post-experience programmes

The top 24 Masters in Finance programmes

Alumni profile

International diversity

International Mobility

International Experience

International Careers

Careers ranking

Aims achieved (%)

Careers:

Research

Aims achieved (%)

Careers:

Research

Careers

Aims achieved (%)

Careers:

Research

Aims achieved (%)

Careers:

Research

Aims achieved (%)

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Aims achieved (%)

Careers:

Research

Aims achieved (%)

Careers:
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<th>Rank</th>
<th>School</th>
<th>Country</th>
<th>Programme name</th>
<th>Salary today (US$)</th>
<th>Careers rank</th>
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<tbody>
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</table>

**Table Note**

Although the headline ranking figures show the relative positions of each institution, the pattern of clustering among the schools is equally significant. Some 217 points separate the top programmes, HEC Paris, from the school ranked number 30. The top 9 participants, from HEC to Skema Business School, form the top group of pre-experience Masters in Finance providers. The second group, headed by EMLyon Business School, spans schools ranked from 10 to 19, a range of some 30 points in total. Differences between schools are small within this group. The remaining 11 schools make up the third group.
## Masters in Finance 2010 listing

<table>
<thead>
<tr>
<th>School Name</th>
<th>Country</th>
<th>Name of Program</th>
<th>Year program started</th>
<th>Numbers enrolled 2009/2010 full-time</th>
<th>Employed at 3 months - full-time program (%)</th>
<th>US Employment</th>
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EXHIBIT VI

COMMENTS FROM SCHOOLS THAT OFFER FINANCE MASTER’S PROGRAMS
Hi Rick,

I tried to answer your questions in the attached. For the early history of the program, I just can’t help you, as I wasn’t at BC when the program started.

Best of luck with your initiative!

Alan

---

From: Richard Smith [mailto:richard.smith@ucr.edu]
Sent: Friday, July 13, 2012 11:46 AM
To: Alan Marcus
Subject: FW: The BC Masters in Finance

Dear Professor Marcus,

I sent the message below to Hassan, only to learn that he is going to be away and not reachable for several weeks. Since you are the current director of the finance graduate programs at BC, the staff there suggested that I contact you instead. Naturally, my questions about the MSF program for you are the same as they were for Hassan. I realize that your familiarity will be more recent, but would appreciate any perspective you can provide.

Regards,

Rick

---

Professor Richard L. Smith
Philip L. Boyd Chair and Professor of Finance
A. Gary Anderson Graduate School of Management

University of California Riverside
Anderson Hall, Rm 141 | 900 University Ave | Riverside CA 92521
Direct: 951.827.3554 Mobile: 909.268.5709 | Fax: 951.827.3970
richard.smith@ucr.edu | http://ssrn.com/author=1879
http://www.sup.org/entrepreneurialfinance/

From: Richard Smith
Sent: Friday, July 13, 2012 8:29 AM
To: 'hassan.tehranian.1@bc.edu'
Subject: The BC Masters in Finance

Dear Hassan,
I hope all is going well for you and that we will have an opportunity to catch up at one of the meetings this year.

I may have mentioned last time we met that UCR is proposing to launch a new masters program in finance that would be similar to yours. As the BC program was one of the first and you were the founder of the program, I am hoping you can advise us a bit and tell us some of your experience with the program, both at the time of its launch and more currently. I have a few specific questions that I hope you can help us with.

1) Can you tell us of any challenges you encountered at the time of launch? In particular, do you recall how quickly the program gained enrollment and what was the profile of students in the program at first (e.g. professionals coming back for focused finance education v. early career and local v. national v. international)?
2) What is your assessment of the current demand for the program and how has it performed relative to, say the MBA in terms of such things as student quality and selectivity in admission?
3) Your MS Finance program is a one-year program and your MBA is two years. This is similar to our situation. Do you find that the MSF program tends to cannibalize the MBA, or are the students different enough that this is not a concern, or possibly does it actually increase the overall applicant pool to the point where the MBA enrollments may also be improved? Is there anything you do proactively to retard cannibalization?
4) What is the current profile of students in the MSF program in terms of local v. national v. international, and early-career v. seasoned professional?
5) Where do students tend to go upon completing the degree (i.e., what sorts of employers both in terms of finance focus and size of organization)? What efforts does the school make to place students locally, nationally, and internationally?
6) Are there any databases or other resources that you have found to be useful for achieving your education mission in the MSF program?
7) Has the program contributed positively to the fiscal well-being of the school?

Hassan, I know this is asking quite a bit. I plan to include your response with our proposal. Review of new degree programs in the UC system is quite extensive, including both academic merit and fiscal viability both on campus and at the overall UC level.

I look forward to hearing from you,

Best,

Rick

**Professor Richard L. Smith**  
Philip L. Boyd Chair and Professor of Finance  
A. Gary Anderson Graduate School of Management

**University of California Riverside**  
Anderson Hall, Rm 141 | 900 University Ave | Riverside CA 92521  
Direct: 951.827.3554 Mobile: 909.268.5709 | Fax: 951.827.3970  
richard.smith@ucr.edu | http://ssrn.com/author=1879  
http://www.sup.org/entrepreneurialfinance/
Careers

When it comes to career advancement, MSF graduates of the Carroll School have several distinct advantages.

Not only does the MSF program provide excellent preparation for an unpredictable economic landscape, our Career Strategies office works closely with candidates on the job search, and Boston College's loyal network of influential alumni provides connections and contacts that will help you succeed.

MSF students at the Carroll School typically go on to jobs in corporate finance, asset management, and investment banking. Recent graduates have accepted positions with Credit Suisse, the Developmental Bank of Singapore, Nomura, State Street, and UBS Wealth Management, among others. Here's an overview.

**MSF CLASS OF 2011**

**Salary**
- Mean Salary: $74,502
- Median Salary: $70,000
- Salary Range: $45,000 to $120,000

**MSF EMPLOYMENT 2009-2011**

**Industry**
- Consulting
- Consumer Goods/Retail
- Financial Services
- Insurance
- Manufacturing

**Representative List of Hiring Companies**
- HSBC
- IM
- Barclay's Capital
- Boston Company Asset Management
- Cannacord Genuity
- Credit Suisse
- Deloitte Consulting
- Development Bank of Singapore
- Duff & Phelps
- FDIC
- Fidelity Investments
- Globant
- Hanover Insurance
- John Hancock
- Marvin Windows and Doors
- RBS/Citizens
- PriceWaterhouseCoopers
- Providence Equity Partners
- Staples
Thank you for your interest in our program. Please see the responses below. Also, the website for the program has extensive information available, including a full placement history and student profiles by class: http://www.cmc.edu/mastersinfinance/

Janet Kiholm Smith  
Von Tobel Chaired Professor of Economics  
Robert Day School of Economics and Finance  
Claremont McKenna College  
Bauer Center, Rm 309 | 500 E. Ninth St. | Claremont CA 91711  
Phone: 909.607.3276 | Mobile: 909.994.5757 | Fax: 909.607.6955

Dear Professor Smith,

UCR is proposing to launch a new masters program in finance that would be similar to yours. As your program has been in operation for several years and you were the founding dean of the Robert Day School when the program was launched, I am hoping you can advise us a bit and tell us some of your experience with the program, both at the time of its launch and more currently. I have a few specific questions that I hope you can help us with.

1) Can you tell us of any challenges you encountered at the time of launch? In particular, do you recall how quickly the program gained enrollment and what was the profile of students in the program at first (e.g. professionals coming back for focused finance education v. early career and local v. national v. international)?

Before we launched, we established our expected profile for students:

- 90th percentile for GMAT or GRE in quantitative areas
- Some work or school experience in the US for foreign applicants (e.g., study abroad)
- Demonstrated leadership potential (interview required)
- Work experience is expected, although we arrange for an internship prior to enrollment. Some students have no work experience other than undergraduate internships.
- Expected course requirements as prereqs included econometrics, finance, accounting (we have backed off on this a bit)
- Liberal arts backgrounds are preferred, but many students come from large schools such as Florida, Michigan, UCLA, Vanderbilt, Stanford, etc.
We were successful at meeting our initial enrollment goals of 20 first year students and the program is now close to 40. We have maintained the expected profile above with very few modifications. Around 20% have relevant work experience but most are 1-2 years out of college. Our most recent class was about 70% domestic, 30% foreign. We have started a BA/MA program that also enrolls our undergrads, which greatly expanded the size of the program. We will have around 35 students next year.

2) What is your assessment of the current demand for the program and how has it performed relative to, say, the Drucker School MBA in terms of such things as student quality and selectivity in admission?

I don't believe there is much overlap at all in terms of applications to Drucker and applications to our program. I do not know what has been happening to the Drucker MBA program selectivity.

3) Your M Finance program is a one-year program and the Drucker MBA is two years. This is similar to our situation. Do you find that the MSF program tends to cannibalize the MBA, or are the students different enough that this is not a concern, or possibly does it actually increase the overall applicant pool to the point where the MBA enrollments may also be improved? Is there anything you do proactively to retard cannibalization?

Again, there is not much overlap between our program and the MBA or MSFE programs at Drucker. The programs are distinct and the targeted students are very different. The Drucker program is a financial engineering program similar to those of UCLA and Berkeley, whereas ours is a less quantitative program, similar to that of Boston College, but with no significant current direct local competitors. We do see some synergies occurring with the Keck Graduate School (biotechnology) and our program.

4) What is the current profile of students in the MSF program in terms of local v. national v. international, and early-career v. seasoned professional?

See above answer to 1)

5) Where do students tend to go upon completing the degree (i.e., what sorts of employers both in terms of finance focus and size of organization)? What efforts does the school make to place students locally, nationally, and internationally?

Our placements have been outstanding. Please see documentation on the website. The only difficulty we have faced is finding jobs in the US for foreign students, but even then our overall placement success is very high. Basically everyone has been placed within 6 months of graduation and the placements are at top firms and three students have elected to go on to graduate programs (Johns Hopkins PhD in statistics, Columbia Law School, PhD in economics, George Mason University).

6) Are there any databases or other resources that you have found to be useful for achieving your education mission in the MSF program?

WRDS-based Compustat and CRSP are essential. We also have several Bloomberg terminals, which are used frequently for class projects by the students--the MA students have their own terminal
in the graduate student lounge. Other key databases are Tompson 1 Banker, Venture Expert, Capital IQ, and for international data, Global Compustat or other. See our databases here: http://www.claremontmckenna.edu/fei/databases/

7) Has the program contributed positively to the fiscal well-being of the school?

We received a large gift to launch this program and a related undergraduate scholarship program, so the program is self-financing. We still generate tuition dollars from the program, as not all students have full tuition scholarships. There is high demand for MS or MA programs like these and most schools seem to be doing well in terms of generating positive cash flow just from tuition.

Professor Smith, I know this is asking quite a bit. I plan to include your response with our proposal. Review of new degree programs in the UC system is quite extensive, including both academic merit and fiscal viability both on campus and at the overall UC level.

I look forward to hearing from you,

Best,

Rick

Professor Richard L. Smith  
Philip L. Boyd Chair and Professor of Finance  
A. Gary Anderson Graduate School of Management  

University of California Riverside  
Anderson Hall, Rm 141 | 900 University Ave | Riverside CA 92521  
Direct: 951.827.3554 Mobile: 909.268.5709 | Fax: 951.827.3970  
richard.smith@ucr.edu | http://ssrn.com/author=1879  
http://www.sup.org/entrepreneurialfinance/
The Claremont McKenna Master in Finance program just posted placement stats for their 2010 MSF program. Great firms and great positions. This program is one of the best in the nation and the main program in California.

**Class of 2010 Master in Finance Placements**

- Caltech Investment Office (Pasadena, CA) – Risk Analyst
- Cambridge Associates (Menlo Park, CA) – Analyst
- Citi (New York, NY) – Quantitative Trader
- Cowen & Co. (San Francisco, CA) – Investment Banking Analyst
- Credit Suisse (Los Angeles, CA) – Investment Banking Analyst
- DaVita, Inc. (Denver, CO) – Healthcare Analyst
- GBM Grupo Bursatil Mexicano (Mexico City, Mexico) – Junior Executive
- Hall Capital Partners (San Francisco, CA) – Private Wealth Mgmt. Analyst
- Harris, Williams & Co. (San Francisco, CA) – Investment Banking Analyst
- Houlihan Lokey (San Francisco, CA) – Investment Banking Analyst
- Pivotal Investments, Ltd. (Hong Kong) – Vice President
- PMF Group (Los Angeles, CA) – Analyst
- Prager, Sealy & Co. (New York, NY) – Trader
- Relational Investors (San Diego, CA) – Analyst
- Union Bank (San Francisco, CA) – Analyst
- Wells Fargo (San Francisco, CA) – Commodities Analyst

For more placement information check out this [link](http://msfhq.com/claremont-mckenna-2010-placement/).

**Here is a link to the Claremont McKenna Master in Finance program**

**Tags:** California, Claremont McKenna, Master in Finance, MSF, Placement
Telephone interview summary in response to email query

UCR is proposing to launch a new masters program in finance that would be similar to yours. As the Weatherhead program has been in operation for several years and you are the finance department chair, I am hoping you can advise us a bit and tell us some of your experience with the program, both at the time of its launch and more currently. I have a few specific questions that I hope you can help us with.

1) Can you tell us of any challenges you encountered at the time of launch? In particular, do you recall how quickly the program gained enrollment and what was the profile of students in the program at first (e.g. professionals coming back for focused finance education v. early career and local v. national v. international)?

The program was started in 2007, with the intent of drawing mainly on existing courses to keep marginal cost low. There are only two courses that are specifically designed for masters of finance students. The others are MBA classes.

Our first class included 22 students and was a nice mix, including some undergraduates. We exceeded 1000 applicants in the third year of the program

2) What is your assessment of the current demand for the program and how has it performed relative to, say the MBA in terms of such things as student quality and selectivity in admission?

We had 1330 applications last year, including about 1200 from China. We try to matriculate 60 students by design – one section. Last year, we had 85, which was higher than intended.

3) Your MS Finance program is a one-year program and your MBA is two years. This is similar to our situation. Do you find that the MSF program tends to cannibalize the MBA, or are the students different enough that this is not a concern, or possibly does it actually increase the overall applicant pool to the point where the MBA enrollments may also be improved? Is there anything you do proactively to retard cannibalization?

We have not seen any noticeable cannibalization of our MBA program. Students in the finance program are different from typical MBAs. The finance students often have no significant work experience, and are undergraduate majors in economics or business. Most students take three semesters to complete the program, though some can complete it in a year. The program is not a “quant” program like that of Carnegie Mellon.

4) What is the current profile of students in the MSF program in terms of local v. national v. international, and early-career v. seasoned professional?

Out of 60 we normally would have about 80% Chinese and 10% with US citizenship. We admit based on GMAT or GRE and use TOEFL and interviews to assess English communications ability. The average
GMAT is around 710. The range for international students is probably 650-750. We go a bit lower for domestic students.

5) Where do students tend to go upon completing the degree (i.e., what sorts of employers both in terms of finance focus and size of organization)? What efforts does the school make to place students locally, nationally, and internationally?

Those who find jobs generally go into analyst roles in smaller institutions. There is only one large investment bank in Cleveland. The pay is slightly higher than for an undergraduate. Our location in Cleveland makes it hard for us to attract domestic students and to place students because Cleveland is a contracting market. Many students do not get jobs and return to China or their home country after completing the degree.

6) Are there any databases or other resources that you have found to be useful for achieving your education mission in the MSF program?

The specialized courses of the program are a course in financial econometrics and a course in empirical methods in finance. In these classes, data analysis is mainly done using SAS. Students make heavy use of databases available from Bloomberg, (Thomson Reuters) Datastream, CRSP, Compustat, and WRDS.

7) Has the program contributed positively to the fiscal well-being of the school?

The program was profitable in its first year. Ours is an expensive program, with tuition of about $52,000. At its current size, we need to staff 10 sections per year and perform some faculty administrative functions. We can do this with about 3 faculty FTE. With 60 students, our gross tuition is about $3.1 million and financial aid is very limited, about 8% of gross tuition. So currently, we generate a large revenue surplus.

So far, we have operated the domestic program without any dedicated staff and have relied on the MBA staff for such things as recruiting and placement. Part of the reason we are so heavily dependent on Chinese students and have limited placement success is that the staff tend to be MBA centric. We recently hired one staff person to help with the launch of our finance program in Shanghai, China, and we are planning to hire one dedicated staff person for the program who will mainly be focused on recruiting and placement. We probably should have had some dedicated staff at the start of the program.

Professor Gupta, I know this is asking quite a bit. I plan to include your response with our proposal. Review of new degree programs in the UC system is quite extensive, including both academic merit and fiscal viability both on campus and at the overall UC level.

I look forward to hearing from you,

Best,

Rick

Professor Richard L. Smith
Philip L. Boyd Chair and Professor of Finance
Careers

Career assistance that is all about you

The Vanderbilt MS Finance program is unique in its design—we offer a flexible curriculum based on your career interests and skill sets. You'll receive one-on-one career planning assistance, including:

- Personalized career advice and guidance from the Career Management Center (CMC) staff and MBA peer coaches
- Interview preparation—mock interviews with staff, peers and employers
- Resume and cover letter writing assistance
- Job search databases
- Networking and learning opportunities with alumni and employers
- MS Finance career workshops and seminars
- On-campus interviews with employers
- Employer information sessions
- Inclusion in an MS Finance resume book that is widely distributed to employers
- MBA peer coaches
- Career Resources
- and more...

Career Paths

Below are career paths that MSF students typically pursue in the MSF program.

QUANTITATIVE FINANCE

1. Trading and Principal Investments

Sales and trading are the investment bank’s distribution arm. This group is responsible for selling all of the financial products (stocks, bonds and their derivatives) developed by the investment banking area. As such, they serve as the vital link between the sellers (corporations, government entities) and the buyers (investors). Although frequently lumped together, salespeople and traders perform different functions. Sales professionals have a list of institutional clients whom they serve by making them aware of new offerings, advising them on how to manage their portfolios and selling them financial products. The sales department can be divided by account size, security type (debt or equity), geography, or product line. Areas within sales and trading include:

- Investment Research
- Proprietary Trading
- Private Equity/Merchant Banking

Recent MSF Student Placements:

- Dayton Power & Light—Trading Control Analyst
- Equity Management Associates—Investment Associate
2. Risk Management
Risk Analysts weigh the probability of profits and losses and make recommendations to senior management on acceptable strategies. Entry-level job titles for these positions include derivatives risk analyst, market risk analyst, and portfolio risk analyst. Duties include developing and managing risk management methodologies; providing financial reporting and risk analytics; and evaluating and testing pricing models.

Recent MSF Student Placements:
- Chicago Mercantile Exchange—Risk Management Specialist
- The Hartford Insurance Company—Actuarial Analyst

CORPORATE FINANCE

1. Corporate/Industry Finance
Corporate finance includes two key functions: accounting and finance. Accounting concerns itself with day-to-day operations—bookkeeping. Accountants balance the books, track expenses and revenue, execute payroll, and pay the bills. They also compile all the financial data needed to issue a company’s financial statements in accordance with government regulations. Finance professionals analyze revenue and expenses to ensure effective use of capital. They also advise businesses about project costs, make capital investments and structure deals to help companies grow. In spite of their different roles, finance and accounting are joined at the hip: The higher levels of accounting (budgeting and analysis) blend in with financial functions (analysis and projections). Thus, finance and accounting are often treated as one, with different divisions undertaking particular tasks such as cash management or taxes.

- Divisional Financial Analysis—In this area, you work with each division's business team to prepare financial plans, make forecasts and compare actual financial results to forecasts. You may also evaluate the financial consequences of alternative strategies. Responsibilities include everything from analyzing new business opportunities to restructuring a business or developing a capital-spending program. The primary concerns are to find better ways of using company assets, to reduce costs and to research ways to develop better forecasts. Financial services evaluates the risks versus potential return of any course of action and develops recommendations so that managers can pick the most profitable strategies, depending on their goals.

- Treasury—The treasury department is responsible for all of a company's financing and investing activities. This department works with investment bankers who help the corporation raise capital through stock or bond issuances, or to expand through mergers and acquisitions. Treasury also manages the pension fund and the corporation's investments in other companies. The department also handles risk management, such as safeguarding corporate assets by using insurance policies or currency hedges.

- Cash Management—This is a company's piggy bank. The cash-management group ensures the company has enough cash on hand to meet its daily needs. The group also invests excess cash in overnight short-term investments. It also negotiates with local banks to help regional business units get the necessary banking services at the best price.

Recent MSF Student Placements:


- Asurion—Financial Analyst
- Cummins—Credit Analyst
- FedEx—Financial Analyst
- HSBC—Management Trainee
- KPMG Structured Finance—Senior Associate Adviser
- PricewaterhouseCoopers—Associate-Valuation Group - Transaction Services

2. Private Wealth Management

Private banking and wealth management are the coordinated delivery of banking, asset management, insurance and fiduciary and tax services to high net worth individuals through a network of highly trained private bankers, investment managers and other specialists. Private wealth managers interface with multiple divisions of investment firms and are able to offer clients resources and services that sophisticated institutional investors have traditionally enjoyed. Offerings include investments in initial public offerings (IPOs), new issues, derivatives and proprietary products. Private wealth managers also deliver an institutional level of research, advisory services and execution to investors. Entry-level job titles for this position include Financial Analyst and require CFA designation for advancement.

Recent MSF Student Placements:

- Salem Partners—Wealth Management Associate

OTHER MS FINANCE CAREER PATHS

1. Financial Economics/Finance PhD preparation

Gain valuable training to apply to PhD programs; doctoral programs value the additional maturity and financial, accounting and econometrics training provided by the MS Finance program.

Recent PhD Program Student Placements:

- Arizona State University Finance PhD program
- Vanderbilt University Finance PhD program

Other Recent MSF Student Placements:

- Accenture—Corporate Strategy
- Archon—Real Estate Analyst
- Carreker—Associate Finance Analyst
- Proflowers.com—Business Analyst-Marketing
- Redhill Realty Investors—Acquisitions Analyst
- Redwood Trust—Associate
- Scott Madden Management Consulting—Associate Consultant

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Discover this place. Shape your world.®
Owen Graduate School of Management
September 27, 2012

Dr. Dallas L. Rabenstein  
Executive Vice Chancellor and Provost  
University of California, Riverside  
Riverside, CA 92521

RE: Master in Finance

Dear Committee Members:

I am writing to endorse the proposed Master in Finance program. This is a well designed program to expand SoBA's self-supporting program offerings. Over the last decade, the industry demand for business graduates has been shifting from the general Master for Business Administration (MBA) to specialized Masters. By offering the Master in Finance, SoBA will start to build up capacity to meet the industry demand. The program will provide a stream of revenue to help the School deal with the financial difficulties.

Like our faculty, I enthusiastically support the program.

Sincerely

Yunzeng Wang  
Interim Dean
EXHIBIT VIII

LETTERS FROM LOCAL FINANCIAL COMMUNITY REPRESENTATIVES
August 16, 2012

Yunzeng Wang
Interim Dean
UCR School of Business Administration
900 University Avenue
Anderson Hall, 118
Riverside, CA 92521

Dean Wang:

As an alumnus of AGSM and a local finance/investment professional, I wanted to let you know how excited I was to hear that the UCR School of Business Administration has the opportunity to introduce a Master in Finance Program.

Such a program is long overdue in the Inland Empire and specifically through our local UC School. As a finance professional in the Inland Empire, I can attest that our ability to find local professionals with the appropriate educational background can be a challenge. As a matter of fact, we currently are seeking an individual with an educational background at the Master of Finance level and/or a CFA Charterholder; this has proved to be challenging as a majority are outside of the local area.

I look forward to the future success of this program and having the opportunity to recruit potential candidates, as well as encourage colleagues across the various lines of business with a presence in the Inland Empire to consider the program.

Sincerely,

Ryan W. Hurd, CAIA, CIMA, CFP
Senior Vice President
July 19, 2012

Yunzeng Wang, Ph.D.
Interim Dean
School of Business Administration
University of California, Riverside
900 University Ave.
Riverside CA 92521

Dear Dr. Wang,

On behalf of U.S. Trust, Bank of America Private Wealth Management I am happy to endorse the proposed Master of Arts in Finance program in the School of Business Administration at the University of California, Riverside.

While this region is not known to have a large financial services sector, it nonetheless does have a significant population of finance professionals who are involved in banking, insurance, investments, financial planning, real estate, and other fields, who could benefit from a specialized degree in finance.

As well, the Southern California region is underserved in graduate finance education and this new program will enable the University of California, Riverside to address a regional market need. In addition, the program will enable existing finance executives to gain the specialized finance expertise required for professional advancement.

As a senior banking and investment executive in the Inland Southern California region, I would be pleased to hire finance professionals graduating from the Master of Arts degree program at the University of California, Riverside.

Sincerely,

Jhoth Shoho
Senior Vice President, Private Client Advisor
U.S. Trust, Bank of America Private Wealth Management
August 2, 2012

Yunzeng Wang
Interim Dean
University of California, Riverside
900 University Avenue
Anderson Hall, 118
Riverside, CA 92521

Dear Dean Wang,

This letter is sent in support of the proposed Master of Arts degree in Finance at UC Riverside. The financial industry needs more programs like this to enable us to provide better services through better trained professionals. We endorse the program and would look forward to the potential long term benefit to our industry.

If you need any additional information, please do not hesitate to call me at 951-782-6188.

Sincerely,

Craig G. Blunden
Chairman
Chief Executive Officer

enclosures

CB: ap
EXHIBIT IX
CURRICULUM VITA OF SELECTED PARTICIPATING FACULTY
RICHARD LESTER SMITH
Anderson Graduate School of Management
University of California, Riverside
Riverside, CA 92521
E-mail: richard.smith@ucr.edu

Education

Ph.D., Business Economics, University of California, Los Angeles, 1979
(Award for Outstanding Graduate in Management).


Professional Employment

Professor of Finance and Philip L. Boyd Chair in Finance, A. Gary Anderson Graduate School of Management, University of California, Riverside, 2008-present (Chair of Department of Finance and Management Science, 2008-present).

Professor and Ralph Leatherby Chair of Entrepreneurship and Private Equity, Argyros School of Business and Economics, Chapman University, 2007-08.


Professor of Finance, Arizona State University, Tempe, Arizona, College of Business, 1989-95 (Associate Professor of Finance, 1985-88) (Assistant Professor of Finance, 1981-84) (on leave 1995).

Chair, Department of Finance, Arizona State University, Tempe, Arizona, College of Business, 1986-91.

Visiting Associate Professor of Business Economics, University of California, Los Angeles, Graduate School of Management, 1985-86.

Visiting Assistant Professor of Finance and Business Economics, University of Oregon, Eugene, 1982.

Visiting Assistant Professor of Business Economics, University of California, Los Angeles, Graduate School of Management, 1980-81.

Visiting Assistant Professor of Finance and Business Economics, University of California, Irvine, Graduate School of Management, 1981.

Assistant Professor of Economics, Case Western Reserve University, Cleveland, Ohio, 1979-80.
Research Assistant, Research Program in Competition and Business Policy, Los Angeles, Professor J. Fred Weston, Director, 1976-79.

Manager of Marketing Research, United Bank of Arizona, Phoenix, Arizona, 1973-76.


**Directorship and Advisory Committee Positions**

Investment Committee of the Board of Trustees, Claremont Graduate University, 1997-00, 2004-2006 (directs investment of the CGU endowment).


Budget Committee of the Board, 1995-96.


Arizona State University, Investment Committee, 1986-88 (directs investment of the ASU Endowment).

**Fields of Concentration**


**Honors and Awards**

Searle-Kaufmann Fellow in Entrepreneurship and the Law, 2009-2010.

Dean's Council of 100, Research Grant, Arizona State University, 1995, "Heterogeneity of Beliefs and Asset Value."

1994 Governor's Spirit of Excellence Award, Business Partners Task Force, member.

Smith Breeden Prize for 1993 (nominee), for best paper published in the *Journal of Finance,* "Market Discounts and Shareholder Gains for Placing Equity Privately."

Dean's Council of 100, Research Grant, Arizona State University, 1992, "Ownership Structure, Monitoring and Corporate Headquarters Relocation."


California Department of Real Estate Sponsored Project, 1986, "Real Estate Specializations: Assessment of the Need for Special Licensing and/or Educational Requirements," principal investigator.

Emory Law and Economics Center, Legal Institute for Economists, at Dartmouth University, 1983.

Faculty Grant-In-Aid, Research Grant, Arizona State University, 1983.


UCLA Anderson Graduate School of Management Alumni Association Award for Outstanding Graduate in Management, 1979.

Teaching:  
Finance  
Asset Management Practicum – MBA  
Corporate Finance – MBA  
Entrepreneurial Finance – MBA, Undergraduate  
Financial Entrepreneurship – MBA, Executive MBA  
Financial Policy and Strategy – MBA, Executive MBA  
Mergers, Acquisitions, and Corporate Control Executive MBA  
Risk Management and Derivatives - MBA  
Strategic Risk Management – MBA and EMBA  
Theory of Finance - Ph.D.

Economics  
Industrial Organization  
Microeconomics  
Managerial Economics – MBA, Executive MBA

Editorial:  
Journal of Financial Research, Executive Editor, 1986-93  
Journal of Financial Research, Associate Editor, 1981-86  
Journal of Banking and Finance, Referee  
Journal of Finance, Referee  
Journal of Financial and Quantitative Analysis, Referee  
Journal of Industrial Economics, Referee  
Journal of Law and Economics, Referee  
Journal of Money, Credit and Banking, Referee  
Review of Financial Studies, Referee  
Financial Review, Referee  
Financial Management, Referee  
Economic Inquiry, Referee  
Quarterly Journal of Business and Economics, Referee

Professional Affiliations
American Economics Association  
American Finance Association  
Financial Management Association  
Western Finance Association
Publications

Books and Articles in Books


Chinese (simplified) translation (2006)


Research Papers


Abstracted in *CFO Europe*, July 1999.


**Work in Progress**


**Dissertation Committees**

Eric Ball, 2007, Drucker School, Claremont Graduate University, Chair, “Market Timing by Venture Capital Firms”

Luann Bangsund, 2006, Drucker School, Claremont Graduate School, Chair, “From Textbook to Pitchbook: An Examination of the IPO Price Formation Process”

John Kinsey, in progress, Drucker Center, Claremont Graduate School, Chair, “The Increasing Significance of Public Capital Sources In Financing Development Stage Enterprises”

Jim Hornbuckle, 1999, Drucker School, Claremont Graduate School, Chair, “Competition and Restructuring in the Electrical Utilities Industry”

Frank Kerins, 1997, Arizona State University, Chair

Calling Nonrefundable Debt

Marcia Selz, 1997, Drucker School, Claremont Graduate School, Member

*Toward a Model of a Gap Analysis Between Investors, Leaders and Intermediaries in the Mutual Fund Industry*

Paul Williams, 1997, Drucker School, Claremont Graduate School, Member

Firms’ Reluctance to Issue New Equity

Steve Rundles, 1996, School for Politics and Economics, Claremont Graduate School, Member, *Strategic Alliances*

Michael Smith, 1994, Arizona State University, Chair

Shareholder Activism by Institutional Investors: Evidence from CalPERS

Vaughn Armstrong, 1995, Arizona State University, Member
Insiders, Information Purchasers and the Bid/Ask Spread

Patrick Trachial, 1994, Arizona State University, Member
Compensation Contracting in the Presence of External Monitors

Timothy Lin, 1993, Arizona State University, Chair
The Selling Choice of Insiders in an Initial Public Offering: The Case of Venture Capital

Chee Keong Ng, 1992, Arizona State University, Chair
The Use of Warrants in Seasoned Equity Underwritings: An Optimal Contract Choice Explanation

Ibrahim Helou, 1992, Arizona State University, Member
Underwriter Reputation and the Wealth Effects of Seasoned Equity

Lena Chua, 1991, Arizona State University, Member
The Cost of Going Public: An Analysis of Firm Commitment and Best Efforts Contracts

Stanley Eakins, 1990, Arizona State University, Chair
The Role of Institutional Ownership in Reducing Agency Costs

Frank Griggs, 1990, Arizona State University, Member
Survival Time Model of Coalition Theory of Financial Distress

Dong Man Kim, 1990, Arizona State University, Chair
Stock Splits and Composition of Shareholders: An Examination of Clientele Effects and Clientele Shifts

Gary Moore, 1989, Arizona State University, Member
The Role of Resource Utilization in the Stock Market/Inflation Relationship

Joo-Hyun Kim, 1989, Arizona State University, Chair
Free Cash Flow and Stockholder Returns in Corporate Takeovers

Hsing Fang, 1986, Arizona State University, Member
International Arbitrage Pricing Model with Market Imperfections: Theory and Empirical Evidence

Kevin Green, 1986, University of California Los Angeles, Member
An Economic Analysis of Investment Banking Contracts
Y. Peter Chung
A. Gary Anderson Graduate School of Management
University of California
Riverside, CA 92521
U.S.A.
(951) 827-3906 (Office)
(951) 827-3970 (Fax)
PETER.CHUNG@UCR.EDU (e-mail)

PERSONAL DATA

Naturalized U.S. Citizen
Born in Seoul, Korea on March 12, 1956
Married - Two Children (One at grad school and the other at college)

EDUCATION

Ph.D. Finance, August 1989
The Ohio State University, Columbus
Dissertation: "A Transaction Data Test of Stock Index Futures
Market Efficiency and Index Arbitrage Profitability," (Supervisor:
Rene Stulz)

California State University, Los Angeles

B.S., International Trade, February 1982
B.S., Foreign Service, February 1979
Sogang University, Seoul, Korea

WORK EXPERIENCE


Daewoo Corporation, International Trade Representative (1981-1982)

ACADEMIC EXPERIENCE

University of California, Riverside
Chair, Department of Finance and Management Science (2006-2008)
Senior Associate Dean (2004)
Interim Dean (2002-2003)
Associate Dean for Graduate Affairs (1998-2002)
Y. Peter Chung

Chair of the MBA Program (1998-2002)
Professor of Finance (2002-Present)
Associate Professor of Finance (Tenured) (1996-2002)
Assistant Professor of Finance (1989-1996)

Taught Undergraduate financial management (BUS 106), investments (BSAD 136), MBA financial management (MGT 202), EMBA financial management (MGT 202), MBA investments (MGT 252A), Executive Education financial management (non-degree), and Ph.D. seminar in empirical analysis (MGT 279K).

The Ohio State University
Teaching Associate (1985-1989)

Independently taught personal finance (9 quarters), business finance (3 quarters), and corporate finance (3 quarters).

RESEARCH INTERESTS

Contingency Claim Valuation, Continuous-Time Modeling, Market Microstructure, International Finance, Emerging Capital Markets, and Investments

JOURNAL PUBLICATIONS


Y. Peter Chung


Y. Peter Chung


OTHER PUBLICATIONS


CONFERENCE PROCEEDINGS PUBLICATION


WORKING PAPERS


“Performance Distribution of Component Stocks and Fund Manager’s Stock Picking Ability,” with Thomas Kim.
Y. Peter Chung


WORKS-IN-PROGRESS


"Good Intentions, Bad Results: An Option-Trading Regulation," with Herb Johnson.


“Persistence and Momentum for Dot Com Stocks, Are they Real?” with Warren Bailey.

“Informational Role of Trading Volume in the Futures Market,” with Chunsheng Zhou and Guojun Wu.


PRESENTATIONS


"Index-Futures Arbitrage in Japan," paper presented at Arizona State University, Boston University, City University of Hong Kong, Hitotsubashi University, Korea Securities Research Institute, University of Rhode Island, the 1993 Western Finance Association Annual Meeting, Whistler, British Columbia, Canada (June 1993), the Fall 1993 ORSA/TIMS meetings, Phoenix (November 1993), the 1994 Derivative Securities Conference at Cornell University (May 1994), the International Business & Economics Research Conference, Reno (October 2001).


"Intraday Behavior of Bid-Ask Spreads for NYSE Stocks and CBOE Options," paper presented at Arizona State University (November 1993), University of California, Riverside (February 1994), Hong Kong University of Science and Technology (June 1994), and the American Stock Exchange Options and Derivatives Colloquium XIV (March 1995).


"Informational Role of Stock and Option Volume," paper presented at the 1999 Western Finance Association Annual Meeting, Santa Monica (June 1999).


“Why Do Stocks Move Together?: Evidence from Commonality in Order Imbalances,” to be presented at Korea Advanced Institute of Science and Technology (December 2010), Sogang University (December 2010), the Fifth International Conference on Asia-Pacific Financial Markets, Seoul, Korea (December 2010), and the 2011 Annual Meeting of the Midwest Finance Association, Chicago (March 2011).
Y. Peter Chung

“Performance Distribution of Components and Fund Manager’s Stock Picking Ability,” paper presented at University of California, Riverside (May 2010 at AGSM and January 2011 at the Econ Dept.) and the 2011 Annual Meeting of the Midwest Finance Association, Chicago (March 2011).


“Asymmetric Price Distribution and Bid-Ask Quotes in the Stock Options Markets,” paper presented at Arizona State University, Chinese University of Hong Kong, National University of Singapore, University of Arizona, and the Sixth International Conference on Asia-Pacific Financial Markets, Seoul, Korea (December 2011)

OTHER SCHOLARLY ACTIVITIES


Ad hoc External Evaluator for the Ph.d. thesis, Hong Kong University of Science and Technology and National University of Singapore, 1997-Current.


Presenter and Discussant for the 2011 Annual Meeting of the Midwest Finance Association, Chicago, March 2011.
Y. Peter Chung


Discussant in the 2006 Ohio State Alumni Finance Conference, Columbus, July 2006


Discussant in the Asia-Pacific Finance Association Annual Conference, Hong Kong, July 1995.


PROFESSIONAL ASSOCIATIONS

American Finance Association
Western Finance Association
Financial Management Association

AWARDS AND HONORS

Winner of a UC MEXUS Small Grant, University of California, August 1995.

Winner of the Affirmative Action Faculty Development Award, University of California, June 1994.

Winner of a Seed Grant from UCR-MEXICO, University of California, May 1991.

Winner of the Graduate Student Alumni Research Award, Ohio State University, December 1988.

Y. Peter Chung

ADMINISTRATIVE EXPERIENCE

Committees of the System-wide Academic Senate, University of California

Member, UC Committee on Planning and Budget (2010-2011)
Member, UC Education Abroad Program Governing Committee (2010-Current)

Committees of the Academic Senate, University of California, Riverside

Member, Student Conduct Committee (1992-1993)
Member, Strategic Planning Committee (1993)
Member, AGSM Dean Search Committee (1993-1994, 2006-2007)
Member, Undergraduate Council (1993-1996)
Member, Early Academic Outreach Task Group (1995-1996)
Member, Early Academic Outreach Task Group (1995-1996)
Member, Committee on University Extension (1997-2000)
Member, Committee on Educational Policy (2006-2008)
Member, Committee on Planning and Budget (2008-2011)
Chair, Committee on Planning and Budget (2010-2011)
Member, Committee on Committees (2011-Current)

Committees of the Anderson Graduate School of Management, University of California, Riverside

Member, Computer Committee (1989-1990)
Member, Business Administration Program Committee (1990-1991, 1995-1996)
Member, MBA Program Committee (1990-1995)
Member, MBA Admission Committee (1990-1997)
Member, Assistant Professor of Accounting Search Committee (1993-1994)
Member, Assistant Professor of Finance Search Committee (1994-1995)
Member, Philip Boyd Endowed Chair in Finance Search Committee (1994-1995)
Member, Assistant Professor of Finance Search Committee (1995-1997)
Member, Executive Committee (1996-Present)
Member, Administrative Executive Committee (2001-Present)
Member, Assistant Professor of Accounting Search Committee (1999-2000)
Member, Assistant Professor of Finance Search Committee (2001-2003)
Member, Associate Professor of Finance Search Committee (2003-Present)
Member, Dean’s Planning Committee (1999-2000)
Member, Accreditation Planning Committee (1999-2003)
Chair, Research Committee (1997-1998)
Chair, Ad hoc Committee on Teaching Credits (1999)
Chair, MBA Program (1998-2002)
Chair, MBA Admission Committee (1998-2002)
Y. Peter Chung

Associate Dean, Graduate Affairs (1998-2002)
Interim Dean (July 2002- December 2003)
Senior Associate Dean (2004)
Chair, Department of Finance and Management Science (2006-2008)
Chair, Open Rank Professor of Finance Search Committee (2012-2013)

CONSULTING ACTIVITIES

Litigation Consultant and Expert Witness, Office of Public Defenders, County of Riverside and County of Los Angeles, 2001-Present.


Executive Consultant, Korea Stock Exchange, 2001-Present.

Advisor to MK HUSDAQ (an executive education firm of the Korean Economic Daily News Group), 2001-Present

Teaching in Executive Development Programs for Bank of America, Merrill Lynch, Morgan Stanley, American Express, New York Life, Prudential Life, Korea Stock Exchange, Daehan Life (Korea), MyAsset Asset Management (Korea), Kookmin Bank (Korea), Shinhan Bank (Korea), Foreign Exchange Bank of Korea, and Industrial Bank of Korea, 2001-Present.
Sukwon (Thomas) Kim

School of Business Administration
University of California, Riverside
900 University Ave
Riverside, CA 92521
Tel: (951) 827-4995
email: sukwonk@ucr.edu

Current Position
Assistant Professor of Finance, School of Business Administration, University of California, Riverside

Areas of Research Interest
Financial Markets, Investments, Mutual Funds, Equity Offerings, Corporate Finance

Working Papers
“Mean reversion and trading activity”, July 2010
“Learning from the distribution of the stock performances inside a fund”, Jun 2010, with Peter Y. Chung
“On order flow synchronicity”, Jun 2010, with Peter Y. Chung
“Is order imbalance related to information?”, Apr 2010, with Hans R. Stoll
“Order Imbalances around seasoned equity offerings”, Mar 2010, with Ronald W. Masulis

Invited Presentations
“Order Imbalances around seasoned equity offerings”, with Ronald W. Masulis, Financial Management Association Annual Conference, New York, NY, Oct 2010 (Accepted as a presenter)
“Price discovery from peers: The downside of stock liquidity”, University of California at Riverside, Nov 2008
“Is order imbalance related to information?”, Seminar in Financial Market Research Center, Owen Graduate School of Business, Vanderbilt University, Aug 2008
“Price discovery from peers: The downside of stock liquidity”, Seminar in Financial Market Research Center, Owen Graduate School of Business, Vanderbilt University, May 2007
**Academic Services**
Member of American Finance Association and Financial Management Association
Paper Reviewer for European Financial Management Association
Paper Discussant for Financial Management Association Annual Conference
Referee Service for *Financial Management*

**Teaching Experience**
Derivatives, MBA level, University of California, Riverside, Fall 2010 (Assigned)
Derivatives, Undergraduate level, University of California, Riverside, Fall 2010 (Assigned)
Investments, Undergraduate level, University of California, Riverside, Fall 2010 (Assigned)
Investments, Undergraduate level, University of California, Riverside, Spring 2010
Corporate Finance, Undergraduate level, University of California, Riverside, Fall 2009
Financial Institutions, MBA level, Vanderbilt University, Fall 2008
Financial Institutions, MBA level, Vanderbilt University, Fall 2007

**Education**
Ph.D. in Finance, Vanderbilt University, May 2009
M.B.A. in Finance, University of Texas at Austin, May 2004
B.A., Economics, Seoul National University, Korea, Feb 2000

**Work Experience**
Fixed income securities dealer, Kookmin Bank, Seoul, Korea, 2001-2002
Operation officer, 1st Lieutenant, Republic of Korea Marine Corps, 2000-2001

**Honors and Fellowships**
University of California Riverside Research Grant, June 2010
Vanderbilt University Doctoral Fellowship in Finance, Aug 2004 – May 2009
Beta Gamma Sigma, University of Texas at Austin, May 2004
Dean’s Award, University of Texas at Austin, May 2004

**References**
Peter Y. Chung  University of California, Riverside  peter.chung@ucr.edu
Richard L. Smith  University of California, Riverside  richard.smith@ucr.edu
Hans R. Stoll  Vanderbilt University  hans.stoll@owen.vanderbilt.edu
Ronald W. Masulis  Vanderbilt University  ronald.masulis@owen.vanderbilt.edu
Yun Liu

Anderson Hall, Rm 214 | 900 University Ave | Riverside CA 92521
Phone: 951.827.6447 | E-mail: yun.liu@ucr.edu

EDUCATION

2002 - 2010
Ph.D., Finance
University of Maryland, College Park, College Park, MD, USA.

2000 - 2002
M.A., Economics
Simon Fraser University, Burnaby, BC, Canada.

1996 - 2000
B.Econ., Money & Banking
Peking University, Beijing, China.

1999
Undergraduate Exchange Program, Management
Menlo College, Menlo Park, CA, USA.

EMPLOYMENT

2010 - Present
Assistant Professor of Finance, University of California, Riverside.

2009 - 2010
Acting Assistant Professor of Finance, University of California, Riverside.

RESEARCH AND TEACHING INTERESTS

Research
Corporate Finance focusing on Governance and Networks.

Teaching
Corporate Finance, International Finance, and Finance core.

TEACHING EXPERIENCE

Corporate Finance
EMBA elective, MBA elective, Undergraduate elective

International Finance
MBA elective, Undergraduate elective

Business Finance
Undergraduate core

Fieldwork in Management
EMBA and MBA internship advisor
HONORS AND AWARDS

2012  Field Research Travel Grant, University of California, Riverside
2011  Regent’s Fellowship Award, University of California, Riverside
2011  Field Research Travel Grant, University of California, Riverside
2010  Distinguished Professor Award, EMBA Cohort I, University of California, Riverside
2006  Joseph Wikler Award for Teaching Excellence, University of Maryland, College Park
2006  Krowe Award for Teaching Excellence, University of Maryland, College Park

DISSERTATION

“The role of networks in the CEO and director labor market”.

WORKING PAPERS

“The impact of networks on CEO turnover, appointment, and compensation” (submitted).

“On the replacements and appointments of independent directors” (with N. C. Chidambaran and N. K. Prabhala).

WORK IN PROGRESS

“Corporate mergers and board of director incentives” (with N. K. Prabhala).

“Compensation committee and executive compensation”.

“Politicians with corporate connections”. 
CONFERENCES

2011 California Corporate Finance Conference. Los Angeles, CA. Discussant
2010 Financial Management Association Meeting. Reno, NV. Discussant. Session Chair
2010 California Corporate Finance Conference. Los Angeles, CA. Paper accepted
2009 International NPR Workshop. Milan, Italy. Paper accepted

PROFESSIONAL SERVICE

Referee
Program Committee member 2011 Financial Management Association Meeting.

UNIVERSITY SERVICE

2009 - 2010 School of Business Administration. Business Administration Program Committee. Member.
2009 - 2010 School of Business Administration. Finance Search Committee. Member.

PROFESSIONAL AFFILIATIONS

American Finance Association
Western Finance Association
Financial Management Association
DAVID MAYER

February 14, 2011

Education

University of Rochester, Ph.D.
Business Administration, June 1972

University of California, M.B.A.
Business Administration, December 1967

U.S. Naval Academy, B.S.
Engineering, June 1960

Ph.D. Program Areas
of Specialization

Major: Business Economics
Minor I: Finance
Minor II: Quantitative Methods


Work Experience

1995-Present Philip L. Boyd Endowed Chair in Finance,
A. Gary Anderson Graduate School of Management,
University of California, Riverside

1986-1995 Arthur E. Shepard Professor of Insurance,
Faculty of Finance, Ohio State University

1983-1986 Professor, Graduate School of Management,
University of California, Los Angeles

1977-1983 Associate Professor, Graduate School of Management,
University of California, Los Angeles
1975-1976 *Visiting Professor*, Finance and Economics, University of Rochester

1972-1977 *Assistant Professor*, Graduate School of Management, University of California, Los Angeles

1970-1972 *Instructor*, Graduate School of Management, University of Rochester

**Publications**


"Corporate Spinoffs: Multiple Announcement and Ex-Date Abnormal


“Organizational Forms Within the Insurance Industry: Theory and Evidence” (with Clifford W. Smith, Jr.), Handbook of Insurance (Georges Dionne, editor), Kluwer academic publishers, (2000).


Awards and Honors

Distinguished Alumni Award, Simon Graduate School of Business Administration, University of Rochester, June 14, 1987.
Pace Setters Research Award: For Outstanding Contributions to Research, College of Business, The Ohio State University, April 1990.

The Garn Institute of Finance Award for "Executive Compensation in the Life Insurance Industry," with Clifford Smith, Jr., 1990

S.S. Huebner Foundation Research Award for "Demutualization in the Insurance Industry," with Clifford Smith, Jr., 1987


Southern Finance Association Award for Best Paper in Financial Services for “Insurer Ownership Structure and Executive Compensation as Strategic Complements,” with Leslie Marx and Clifford W. Smith, Jr., November 20, 1998


Professional Associations

American Economic Association
American Finance Association
American Risk and Insurance Association
Western Finance Association
Western Economic Association
Editorial Service

Co-Editor for The Journal of Finance, 1988-1995

Member, Board of Associate Editors for the Journal of Financial Economics, 1974-1995

Member Board of Associate Editors for the Journal of Financial Research, 1987-1990

Member, Board of Associate Editors for the Journal of Finance, 1995-2000
MICHAEL L. MOORE  
865 12th Court  
Manhattan Beach, CA 90266  
310.283.6586 cell  
310.373.3404 fax  
Email: mlmepa@hrmepas.com

PEOFESIONAL  Hull, Ruhl and Moore, CPAs  
Partner 1997 to 12/31/2007

EDUCATION  Ph.D., Pennsylvania State University, 1971  
M.S., Pennsylvania State University, 1967  
B.A., University of Washington, 1966

PROFESSIONAL CERTIFICATION  Certified Public Accountant (Washington State and California)

PAST ACADEMIC POSITIONS

1997-2006  California State University-Fullerton  
Lecturer

1995-1997  Colorado State University  
Professor and Chair, Department of Accounting & Taxation

1979-1995  University of Southern California  
- Professor of Accounting (1979-1987)  
- Kenneth Leventhal Professor of Accounting (1987-1995)

1971-1979  University of Texas at Austin

Summer 1977  University of Washington

OTHER PROFESSIONAL EXPERIENCE

1978-1979  Arthur Andersen & Co., Chicago

Other  Ernst & Ernst; Other Accounting Firms  
- Three years public accounting experience  
Self-employed consultant  

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS  
American Institute of Certified Public Accountants  
California Society of Certified Public Accountants  
Beta Alpha Psi  
Beta Gamma Sigma
PUBLICATIONS

Books


An Introduction to Subchapter C-The Taxation of Corporations and Their Shareholders, American Institute of Certified Public Accountants, 1987, (with J. Mallek)


Income Taxation of Estates, Trusts, and Beneficiaries, A Supplement Reflecting Tax Law Changes Made by the Revenue Act of 1978, Institute for Business Planning, Inc. 1979 (with T. Englebrecht)

Chapters


**Cases**


**Articles**


This article received the 1989 American Taxation Association Award for Best Tax Manuscript, 1986-1988.


This article received the 1985-86 American Taxation Association Award for Best Tax Manuscript, 1983-1985

"Minimizing Taxes on Installment Sales After the Seller Dies or if the Estates Makes the Sale," *Estate Planning*, May 1982 (with C. Ruhl)


"Discharge of Partnership Indebtedness: Stackhouse Muddies the Water," The Tax Advisor, March 1975 (with K. Heller)


"Pollution Control Devices: Rapid Amortization Versus the Investment Credit," Taxes, January 1974 (with G.F. Struening)


"Section 303: Planning Possibilities for 'Dividend Proof' Redemption," Taxation for Accountants, June 1973 (with S. Curtis)

"Capital as a Material Income-Producing Factor for 1348 Purposes: An Analysis," The Journal of Taxation, June 1973

"The Gross Estate - Inception of Title Principle for Life Insurance-Some Doubts Have Been Raised," The Texas CPA, July 1972

"Validity of the 1966 Tax Model as a Research Tool," The Accounting Review, April 1972 (with R. Copeland)

"Management Changes and Discretionary Accounting Decisions," Journal of Accounting Research, Spring 1973


"Conservatism" The Texas CPA, October 1972


"Actual Use of Specialized Accounting Statements," The Accounting Review, April 1968 (with R. Copeland)
Book Reviews


Reprints


Committee Reports


PRESENTATIONS (Since 1985)

Professional Meetings


**Academic Meetings**


RESEARCH GRANTS

Industry Sponsored
KPMG Peat Marwick Foundation Tax Research Opportunities Grant
CIBEAR Research Grant
Arthur Young Foundation Tax Research Grant
Price Waterhouse Fellowship
American Accounting Association Fellowship

University Sponsored
USC School of Business Research Grant
College of Business Academic Development Grant

OTHER ACTIVITIES

Editorial Boards/Reviewer


Ad Hoc Reviewer, Accounting Horizons, various times.

Ad Hoc Reviewer, Advances in Taxation, various times.


Ad Hoc Reviewer, Accounting Review, various times.

Offices Held/ Major Committees

1996
Curriculum Evaluation Committee, Federation of Schools of Accounting

1994-95
Tax Policy Oversight Committee, American Taxation Committee

1991-94
International Tax Policy Committee, American Taxation Association
Notable Contributions to Accounting Literature, American Institute of Certified Public Accountants

1990-91
International Tax Policy Committee, American Taxation Association
Notable Contributions to Accounting Literature, American Institute of Certified Public Accountants
Federal Tax Division, American Institute of Certified Public Accountants,

1989-90
Federal Tax Division, American Institute of Certified Public Accountants,
Trustee, American Taxation Association
Nominations Committee, American Taxation Association
International Tax Policy Committee, American Taxation Association

1988-89
Trustee, American Taxation Association
Nominations Committee, American Taxation Association

1987-88
President, American Taxation Association
Trustee, American Taxation Association
International Tax Subcommittee, American Institute of Certified Public Accountants Federal Tax Division
Planning Committee, California Society of Certified Public Accountants, Tax Educators Symposium

1986-87
President-elect, American Taxation Association
Trustee, American Taxation Association
International Tax Subcommittee, American Institute of Certified Public Accountants Federal Tax Division

1985-85
Tax Research Methodology Committee, American Taxation Association

1984-85
Vice President, American Taxation Association

1983-84
Task Force on AACSB Tax Accreditation Guidelines, AICPA Federal Tax Committee
Tax Simplification Committee, American Taxation Association

1981-1983
ATA Doctoral Dissertation Grant Committee, American Taxation Association,
Planning Committee, California Society of Certified Public Accountants, Tax Educators Symposium Selection Committee
Notable Contributions in Accounting Literature, American Accounting Association
Nominating Committee, American Taxation Association

1980-1982
Scope of Tax Practice Committee, American Taxation Association
Trustee, American Taxation Association
Legislative and Regulation Proposals Committee, American Accounting Association

1975-1979
International Taxation Committee, International Accounting Section of American Accounting Association
International Tax Subcommittee, American Institute of Certified Public Accountants
Committee to Respond to Legislative Proposals, American Taxation Association
Planning Committee, University of Texas Law School Tax Institute
Committee on Federal Taxation, American Accounting Association
Board of Directors, Pennsylvania State University Tax Institute
Education Committee, Texas Association of Realtors

Organizer—Seminars

Advisory Boards

Seattle University MS Taxation Advisory Board, 1990-91.
Hong Kong University of Science and Technology, 1990-91.
Board of Directors, California State Games (amateur athletics), 1988-1995.
Board of Directors, Parkinsons Resource Organization, 1999-2003
Board of Directors and Treasurer, Arts Manhattan, 2001-present.
Board of Directors and Financial Officer, Richstone Family Center, 2005 to present.
VITA

Woody M. Liao
Ph.D., CPA, CMA
Professor of Accounting

Office: Graduate School of Management
University of California-Riverside
Riverside, California 92521
Phone: 951-827-6451
Email: woody.liao@ucr.edu

Education:


Appointments:

Professor of Accounting, Graduate School of Management, University of California-Riverside, July/1991 to present.
Graduate Advisor, Graduate School of Management, UCR, July 1, 2006 to present.
Senior Associate Dean, Graduate School of Management, UCR, July 2004 to June 2005.
Chair and Area Coordinator of Accounting, Graduate School of Management, University of California-Riverside, 1999 – 2003.
Professor of Accounting, Department of Accountancy & Taxation, University of Houston, September/1986 to June/1991.
Director of Ph.D. Program in Accountancy & Taxation, College of Business Administration, University of Houston, September/1985 to August/1990. Responsibilities included: recruiting, admission, advising, and evaluation of Ph.D. students.
Associate Professor of Accounting, Department of Accountancy & Taxation, University of Houston, January/1978 to August/1986.
Assistant Professor of Accounting, Department of Accounting, Virginia Polytechnic Institute and State University, Sept.1974 to Dec.1977.

Professional Certificates Held:

Certified Public Accountant (CPA)
Certified Management Accountant (CMA)

Honors and Awards:

Research Fellowship, College of Business Administration, University of Florida, 1972-73.
Grant-In-Aid, College of Business Administration, University of Houston, 1980.
Summer Research Grant, College of Business Administration, University of Houston, 1980-81 and 1985-88.
Halliburton Faculty Research and Service Award, University of Houston, 1989-90.
Recognized as one of the top prolific authors who received an accounting doctorate degree in 1974 by a recent study on prolific researchers in accounting, www.jrhasselback.com/prolificauthors.

Publications:

A. Refereed Journals:


16. "Faculty Publications as a Surrogate for Accounting Program Quality" (with Jim B. Boockholdt), Collegiate News and Views (Spring, 1983), pp.7-13.


29. "Using a Learning Curve Model as a Tool to Estimate Product Warranty Service Costs" (with K. Hung Chan), Hong Kong Journal of Business Management, Fall, 1996.


34. “Professionalism Organizational-Professional Conflict and Work Outcomes: A Study of Certified Management Accountants” (with William Shafer and Jane Park), Accounting, Auditing, and Accountability Journal, Volume 15, Number 1, 2002, pp. 46-68.


B. Conference Papers:


5. "Quantitative Methods and Accounting Education" (with C. Granger), Proceedings of the Western Regional Meeting for the American Institute for Decision Sciences, 1978.


17. "Use of Learning Curves to Estimate Warranty Service Costs" (with K. Hung Chan), Proceedings of The Sixth Annual Conference of Accounting Academics, April, 1994.


C. Textbooks and Contribution to Textbooks:


Course materials for Advanced Topics in Accounting at the Open University of Hong Kong, 2002.

Unit 1: Causes of International Accounting Differences and Major International Accounting Differences (37 pages)

Unit 2: International Accounting Harmonization and Disclosure (48 pages)

Unit 3: International Business Combination and Consolidation (53 pages)

Unit 4: Accounting for Price Changes and Inflation Internationally (41 pages)

Unit 5: Foreign Currency Translation (47 pages)

Unit 6: International Performance Evaluation and Budgeting (43 pages)

Unit 7: International Product Costing and Transfer Pricing (43 pages)

Unit 8: International Analysis of Financial Statements (41 pages)

Unit 9: Behavioral Accounting (37 pages)

Unit 10: Accounting Information and Capital Market Behavior (48 pages)


D. Reprinted Articles:


Principal Courses Taught:

Principles of Accounting
Intermediate Accounting
Cost/Management Accounting
Accounting Information System
Quantitative Applications in Accounting
Controllership
Administrative Control
Advanced Cost Accounting
Advanced Managerial Accounting
Development of Managerial Accounting Thought (PH.D. Seminar)
CPA Review Course
CMA Review Course

Ph.D. Student Committees:

A. Chairman of Dissertation Committee:

Chairman of Ph.D. Dissertation committee (Ram Yallapragada), the dissertation title: Accounting for Imputed Interest on Equity Capital and Its Effect on Predictability of Annual Income: An Empirical Investigation, University of Houston, 1982.

Chairman of Ph.D. dissertation committee (Soonkee Kim), the dissertation title: A Comparison and Evaluation of Cost Variance Investigation Models, University of Houston, 1983.

Chairman of Ph.D. dissertation committee (Pam Church), the dissertation title: Environment Volatility and Capital Budgeting Practices, University of Houston, 1986.

Chairman of Ph.D. dissertation committee (John R. Leavins), the dissertation title: An Examination of Budget Slack within an Expectancy Theory Framework, University of Houston, 1987.


Chairman of Ph.D. dissertation committee (Lu Montondon), the dissertation title: Municipal Resources Allocation Decisions and Bond Ratings, University of Houston, 1990.

B. Member of Dissertation Committee:

Member of Ph.D. dissertation committee (John E. Ketz), the dissertation title: A Comparison of the Predictability of Business Failure by the Financial Ratios of General Price Level Statements with Those of Historical Cost Statements, VPI and State University, 1977.

Member of Ph.D. dissertation committee (Glenn L. Helms), the dissertation title: An Examination of the Impact of Information System Auditor Involvement in Systems Development on the Quality of New Application Systems, University of Houston, 1983.

Member of Ph.D. dissertation committee (M. R. Hutton), the dissertation title: Perceptions of Recently Enacted Tax Penalties, University of Houston, 1985.

Member of Ph.D. dissertation committee (D. Bohac), the dissertation title: The Effect of Management Control on Audit Planning, University of Houston, 1986.

Member of Ph.D. dissertation committee (P. Pauley), the dissertation title: Perceptions of the Tax Consequences of Distributions from Retirement Plans, University of Houston, 1987.


Papers Presented at the Professional Meetings:

A. Presented at National Meetings:


"A Study of CPA’s and CMA’s Perceptions of Current Accounting Education" at the Annual Meeting of the American Institute for Decision Sciences, November, 1979, New Orleans, La.


"C-V-P Analysis with Stochastic Demand" at the Annual Meeting of the American Institute for Decision Sciences, 1980, Las Vegas, Nevada.


"Maximization of Expected Rate of Return on Investment for the Stochastic Demand CVP Models" at the Annual Meeting of the American Institute for Decision Sciences, 1982.


“An Experimental Comparison of Transfer Pricing Methods under High and Low Private Information” at the American Accounting Association Annual Meeting, Management Accounting Section, 2006.

B. Presented at Regional Meetings:


"Dissecting Learning Curves for Better Predictive Results" at the Midwest Regional Meeting for the American Institute for Decision Sciences, 1977.


"Quantitative Methods and Accounting Education" at the Western Regional Meeting for the American Institute for Decision Sciences, 1978.

"The Reinvestment Rate of Return: A Simulation Approach" at the Western Regional Meeting for the American Institute for Decision Sciences, 1979.

"Perceptions of Deficiencies in the State of Knowledge of Beginning Accountants by Management Accountants" at the Southeast Regional Meeting of the AAA, 1979.

"The Effect of Learning on Cost-Volume-Profit Analysis" at the Western Regional Meeting of the American Institute for Decision Sciences, 1980.


"A Comparison of Superiority of Mean-Life Depreciation and Probability-Life Depreciation under Current Accounting Practice" at the Southwest Regional Meeting of the American Accounting Association, 1980.


"How Do Ability and Motivation Affect Decision Makers’ Performance" at the ABO Research Conference, 1996.


C. Presented at International Meetings:


"How Do Ability and Motivation Affect Decision Makers’ Performance" at the International Conference on Contemporary Accounting Issues, 1996.


Professional Services and Activities

A. Service to Professional Organizations:

Instructor for National Association of Accounting Local Education Activities Program (LEAP) on "Accounting for Leases" 1975, Roanoke, Va.

Director of Manuscripts, Roanoke Chapter of National Association of Accountants, 1976-77.
Director of Manuscripts, Roanoke Chapter of National Association of Accountants, 1977-78.

Instructor for Continuing Profession Education Program – Planning and Administering the Company Budget, the Texas Society of CPAs, 1978, Houston, TX.


Paper Discussant at the Southwestern Regional Meeting of the American Institute for Decision Sciences, 1979.


Director of Manuscripts, Houston Chapter of National Association of Accountants.

Paper Discussant at the Annual Meeting of the American Institute for Decision Sciences, 1983.

Session Chair for Management Accounting at the Annual Meeting of the American Institute for Decision Sciences, 1983.

Innovative Education Committee and Instructional Award Committee of the American Institute for Decision Sciences, 1984.

Session Chair for Academic Issues Session at the Annual Meeting of the American Institute for Decision Sciences, 1984.

Instructor for the CPA Review Session, the Lone Star Chapter of the NAA, 1986.

Speaker for Annual Seminar on Accounting Education, Texas Society of CPAs, 1990.

Visiting Professor of Accounting at University of Hawaii-Manoa, Summer, 1992.
External Examiner for the Accountancy Program at the Chinese University of Hong Kong, 1994-97.
External Assessor for the Department of Accounting and Finance at Lingnan University, 2000-present.
Visiting Research Professorship, National Chung Hsing University, 2003-present.
Visiting Professor of Accounting at Naval Postgraduate School, Summer 2006.

B. Service to Research Journals and Activities:


Have refereed manuscripts for the following professional meetings: Annual Meeting for the American Institute for Decision Sciences, Western Regional Meetings for the American Accounting Association, and Southwest Regional Meetings for the American Accounting Association.

Visiting Research Scholar at Hong Kong Polytechnic University, 1994.
Visiting Research Scholar at the Chinese University of Hong Kong, 1995.

C. Service to Universities:

Business and Industry Committee, VPI & State University, 1974-75.
Research and Publications Committee, VPI & State University, 1975-77.
Masters of Accountancy Program Committee, VPI & State University, 1975-77.
Undergraduate Accountancy Program Committee, VPI & State University, 1975-76 and 1976-77 (Chairman).
International Program Coordinator for Foreign Government Visitors to the Houston Area, Sponsored by the United States Department of Agriculture (USDA), 1979.
Referee for proposals submitted to the internally funded faculty research programs, University of Houston, 1979.
Chairman for the Accounting Department Chairperson Search Committee, University of Houston, 1980-81.
Tenure and Promotion Committee, Department of Accountancy and Taxation, University of Houston, 1981-84 and 1986-1990.
Ph.D. Program Committee, Department of Accountancy and Taxation, University of Houston, 1981-85.
University Publications Committee, University of Houston, 1980-82.
College of Business Administration Steering Committee, University of Houston, 1982-84.
Faculty Senate, University of Houston, 1982-85.
Student Campus Life Committee, University of Houston, 1982-84.
Student Service Fee Planning and Allocation Committee, University of Houston, 1982-84.
Small Business and Entrepreneurship Program Committee, University of Houston, 1984.
Faculty Affairs Committee, University of Houston, 1985.
Graduate Admissions Committee, College of Business Administration U of Houston, 1985.
Grievance Committee, College of Business Administration, University of Houston, 1984-85.
Accountancy and Taxation Scholarship and Fellowship Committee, University of Houston, 1985.
Chairman for the Accounting Department Chairperson Search Committee, University of Houston, 1985-86.
Director of Ph.D. program, Department of Accountancy and Taxation, University of Houston, 1985-90.
Chairman of Ph.D. Admission Committee, Department of Accountancy and Taxation, University of Houston, 1985-90.
College Ph.D. Program Committee, College of Business Administration, University of Houston, 1986-90.
Graduate and Professional Studies Council, University of Houston, 1987-89.
College Tenure and Promotion Committee, College of Business Administration, University of Houston, 1990-91.
GSM Ph.D. Program Planning Committee, UCR, 1992-93.
GSM Building and Space Allocation Committee (Chair), UCR, 1992-93.
GSM Dean Search Committee, UCR, 1993.
GSM Designated Letter Writer for personnel cases, UCR, 1993.
Education Policy Committee, UCR, 1993-96.
Chairman of GSM Accounting Faculty Recruiting Committee, UCR, 1993-2001.
Ad Hoc Full Professor Promotion Committee, UC-Irvine, 2002.
Chairman of MBA Program Committee, UCR, 2002-2003.
Chairman of Business Administration Program Committee, UCR, 2004-2005.
MBA Admission Committee, AGSM, UCR, 2006.
Graduate Advisor, AGSM, UCR, 2006.

D. Service to Community and Public:


Presentation of College Scholarships by National Association of Accountants, Houston, TX, 1985.

Presentation of College Scholarships by Institute of Internal Auditors, Houston, Texas, 1986.

EDUCATION
Ph. D. in Accounting, The University of Texas at Austin, December, 1996.

M.S. in Petroleum Engineering, The University of Texas at Austin, August, 1989.

B.S. in Mining Engineering, Regional Engineering College (REC), Rourkela, India, March, 1984.

POSITIONS HELD
Fall 2006-  
Associate Professor & Chair, The University of California, Riverside

2005-2006  
Associate Professor & Associate Dean, The University of California, Riverside

2004-2005  
Associate Professor & Associate Chair, The University of California, Riverside

2003-2004  
Assistant Professor & Area Coordinator, The University of California, Riverside

2000-2003  
Assistant Professor, The University of Texas at Dallas

1999-2000  
Assistant Professor, (visiting) The University of Texas at Austin

1996-1998  
Assistant Professor, Arizona State University, Tempe

1984-1985  
Lecturer, Department of Mining Engineering, REC, Rourkela

RESEARCH
Referred Publication


16. Retailer versus Vendor Managed Inventory and Brand Competition. Management Science. Vol. 50,

14. An empirical assessment of the impact of non-audit service fee disclosure requirements on audit fee and non-audit service fee in the United Kingdom. Advances in Accounting, Nov. 2003 (with G. Iyer, and M. Iyer at ASU, Tempe and UNC, Greensboro)


12. Centralized Pricing versus Delegating Pricing to the Sales Force under Information Asymmetry. Marketing Science, Volume 23, Issue 1, Winter 2004 (With A. Prasad at the University of Texas at Dallas)


6. Impact of Information Technology on the Accuracy of Analyst Forecast. Review of Business Information Systems, Fall 2002. (With S. Asthana and S. Balsam, Fox School of Business, Temple, PA) (This paper received the best research paper award at 2002 Annual AIS educator’s conference in Copper Colorado)


2. Environmental Regulations and Incentives for Compliance Audits. Journal of Accounting and Public
Policy, 1997 (Vol.16). (With P. Newman and C. Stinson, The University of Texas)


**Papers under Review**

1. *Capacity Acquisition Capacity Cost Allocation and Pricing for Product Market Decisions*. Second revision at The Accounting Review. Mishra, B. K., A. Prasad, and D. Srinivasan. The University of California at Riverside, the University of Texas at Dallas and, University of Pittsburgh.


4. *Demand Forecast Sharing in Supply Chains*. First revision at Management science. Mishra, B. K., S. Raghunathan and X. Yue, the UC at Riverside the University of Texas at Dallas and the University of Wisconsin-Milwaukee

5. *Manager’s Earnings Forecast and Inter industry Information Transfers: Evidence from Taiwan*. First Review at Review of Accounting Studies. Chang, H., H. C. Huang and B. K. Mishra, The University of California at Riverside and National Taipei University, Taipei, Taiwan.


7. *Optimal Configuration of Detection Software*. First review at IEEE Transaction on Dependable and Secure Computing. Cavusoglu, H., B. K. Mishra and S. Raghunathan, The University of Tulane, the University of Texas at Dallas and the University of California at Riverside

**Working Papers**


of California at Riverside and the University of Texas at Dallas.

5. Banker, R., B. K. Mishra and A. Prasad, *Credible Communication of Audience Claims by Internet Websites*, First revision at ISR, The University of California at Riverside and the University of Texas at Dallas.

**Work in Progress**


**Conference Proceedings Invited Presentations and Discussions**

- *Mutual Monitoring in a Multi-Period Team Setting: An Experimental Investigation* Discussant AAA Management Accounting Section Annual conference Fort Worth TX, January 2007
  
  *This conference was supported by National Science Foundation and the Polytechnic University. This paper received the best paper award in the workshop.*

• Manager’s Earnings Forecast and Inter industry Information Transfers: Evidence from Taiwan. presented at AAA. August 2004. Orlando, Florida.

• Delegating investment Decisions, AAA conference August, 2003, Honolulu.

• The Effect of Internet Security Breach Announcements on Market Value of Breached Firms and Internet Security Developers, presented at AAA IS Section Conference 2003, Sandiego.


• The Value of the Intrusion Detection System (IDS) in Information Technology (IT) Security Architecture, presented at AMCIS, Dallas, 2002.


• Demand Forecast Sharing in Supply Chains, presented at INFORMS, Nov. 2001.

• Strategic Analysis of Corporate Software Piracy Prevention and Detection, Presented at The University of Texas at Dallas in March 2000.

• Incremental Information Content of SFAS 106, Presented at Texas Christian University, Fort worth Texas in December 1999.

• Differential Information Hypothesis, Firm size and Information Transfer, Presented at 1997 ASU/U of A conference, in Tempe AZ.

• A Theory of Cost-System Choice: Traditional vs. Activity-Based Costing.
  ➢ Arizona State University, Tempe in February 1996.
  ➢ Stanford University in March 1996.
  ➢ University of Illinois Chicago in March 1996.
  ➢ American Accounting Association Annual Meeting, 1996, Chicago, IL.

Research Proposals Funded
“Strategic Analysis of Corporate Software Piracy prevention and Detection”
Dean’s Excellence in Research grant in the amount of $10,000, Arizona State University. The financial grant was provided by of Dean’s Council of 100, The Economic Club of Phoenix and Alumna’s of the College of Business Arizona State University.

Professional Affiliations
Member American Accounting Association
Member INFORMS, AIS

TEACHING
Courses Taught
Management synthesis
Intermediate accounting
Introductory, Advanced and Graduate Managerial Accounting Class
Accounting and Information Systems
Managing Accounting Data
Data Strategy and Management
Accounting systems and control

Cases Authored
The Encino Company Case. An Illustration of Production Cycle Transactions in Accounting Information Systems.

New Teaching Material developed
Designed and implemented the class in Management Accounting Data and Data Strategy and Management. This class integrates the information aspects of business process design (financial and nonfinancial information) with modern database management concepts and systems. Currently I have redesigned one of the classes to put more focus on control issues after

Dissertations Guided:
Xiaohang Yue, Committee member, Placed: University of Wisconsin-Milwaukee.
Huseyin Cavasoglu, Co-chair, Placed: University of Tulane.

Honor’s & Awards:
• Best research paper award 2006, Secure Knowledge Management Conference, Brooklyn, NY.
• Awarded the Hero’s of the Heart award from Washington Elementary School (2005-06)


• Best research paper award 2002, AIS educator’s conference, Copper Colorado.

• Dean’s excellence in research award, Arizona State University, 2000.

• Selected twice by students as best instructor Main Campus ASU, Tempe.

• Department of Accounting Scholarship, The UT at Austin, sponsored by big six accounting and Fortune 500 firms, for five years 1991-1996.


• The University of Texas University-Wide Continuing Fellowship Award, Received twice. The University Fellowship is the highest honors awarded to a graduate student at the UT at Austin on a competitive basis.

• William W. Cooper Fellow. The University of Texas at Austin.

• Ranked **First** in graduate Aptitude test in engineering (*All India Basis*) in Mining Engineering. Held by Ministry of Education Government of India.

• Beta Alpha Phi, International Honor Society, the UT at Austin. Also nominated for several Engineering Honor societies.

• Senior Merit Scholarship, Regional Engineering College, Rourkela.
CURRICULUM VITAE
Theodore Jaye Mock

University Address & Contact Information
A. Gary Anderson Graduate School of Management
209 Anderson Hall
900 University Ave
University of California, Riverside
Riverside, CA 92521-0203

Home Address & Contact Information
3604 Hightide Drive
Rancho Palos Verdes
California 90275
(310) 541-6294
(310) 346-0744 [cell]
tmock@marshall.usc.edu

EDUCATION
University of California, Berkeley, Ph.D. – Business Administration, 1969
The Ohio State University, M.B.A. – Finance, 1964
The Ohio State University, B.S. – Mathematics, 1963

PROFESSIONAL EXPERIENCE
1. University of California, Riverside; Anderson Graduate School of Management, Distinguished Professor of Audit & Assurance, July 2008 - present
3. University of Southern California, Leventhal School of Accounting, Marshall School of Business Administration.
   a) Emeritus Professor (2008 – present)
   b) Arthur Andersen Alumni Professor of Accounting, 1982-2006.
   c) Professor, 1979-2008.
   d) Associate Professor, 1973-1979.
   g) Founder & Chairman, USC Audit Judgment Symposium, 1983-1994
   h) Founder & Program Chairman, International Symposium on Audit Research, 1994 - present.
7. National University of Singapore, Tang Peng Yue Visiting Professor (July – August 2000)
9. Nanyang Technological University, Shaw Professor, (May – August), 1997
11. Norwegian School of Economics and Business Administration, Bergen Norway; Visiting Professor (Spring 1988).
12. Otago University, Dunedin, New Zealand; Fulbright Fellow, (June-August, 1988).
13. Southern Cross University, Australia, Visiting Professor, 1994.
15. Ohio State University, Visiting Assistant Professor (1972-73).
16. University of California, Los Angeles, Graduate School of Management; Assistant Professor (1968-73) and Director, Accounting Information Systems Research Program, (1970-73).
17. University of California, Berkeley, Lecturer (1967-68)
AWARDS AND HONORS

1. Distinguished Professor of Audit & Assurance, University of California, (2008 – present)
2. Visiting Scholar, University of Melbourne, Sept. – Nov. 2007
5. Distinguished Visiting Professor, Australia National University, June, 2003, May 2004
9. Appointed a USC Ambassador 1999
10. 1998 Joint AICPA/AAA Collaboration Award
11. Shaw Foundation Professor, Nanyang Technological University, Singapore, May-August, 1997
12. First Ernst & Young Distinguished Visiting Scholar, Center for Auditing Research & Advanced Technology, University of Kansas, 1996
13. External advisor to the University Council of the Chinese University of Hong Kong, 1996-98.
14. Honorary Professor, City University of Hong Kong, 1995-98
20. Presented Inaugural Lecture, Maastricht Accounting & Auditing Research Center, University of Limburg (Maastricht University), The Netherlands, October, 1992.
23. Dean’s Faculty Award, School of Business Administration, University of Southern California, 1984.
24. California CPA Foundation 1983 Faculty Excellence Award, California Certified Public Accountants Foundation for Education and Research.
29. Doctoral Students Association Teaching Award, School of Business Administration, University of Southern California, 1977.
PROFESSIONAL MEMBERSHIPS AND ACTIVITIES


   a. President, Auditing Section, 1991-92
   b. Academic Vice-President, Auditing Section, 1990-91
   c. Member, Accounting Educator Award Committee, 1986-1990, Chairman, 1989-90.
   d. Chair, Committee on Contemporary Approaches to Teaching Accounting Information Systems, 1985-86.
   e. Member, Auditing Section Task Force on New Technology in Auditing, 1985-86.
   f. Director of Research and Member, Executive Committee, 1982-1984.
   g. Member, Doctoral Consortium Committee, 1980-81, 96-97.
   h. Chair, Annual Meeting Manuscript Selection Committee, Auditing Section, 1981.
   i. Research Committee Chair, Auditing Section, 1979-1980.
   l. Program Committee, Auditing Section, 1999, 2000
   m. Chair, Communications Committee, Auditing Section, 1998-2000
   n. Member, AAA Research Advisory Committee, 2007-2008


5. Member: Canadian Academic Accounting Association, Accounting Association of Australia & New Zealand, European Accounting Association, Institute of Internal Auditors, Fulbright Association and others.


7. Executive Board, Maastricht Accounting & Auditing Research Center, 1991 – present

8. Advisory Board, Continuous Audit Research Lab, Rutgers Business School, 2008 - …
PUBLICATIONS

Books and Research Monographs

2. The Determination and Communication of Levels of Assurance Other than High, International Auditing and Assurance Standards Board, International Federation of Accountants, (with S. Maijoor et al.), 2002
Refereed Journal Articles

2. Client Risk Factors and Audit Resource Allocation Decisions, 2011 [Issue 1], Abacus. [H. Fukukawa and A. Wright, co-authors].
5. Exploring the role of context and client type on the auditor’s client risk assessments and audit planning decisions, forthcoming 2011, Managerial Auditing Journal, [M. De Martinis and H. Fukukawa, co-authors].
<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Authors</th>
</tr>
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<tbody>
<tr>
<td>35</td>
<td>Analytical Procedures: Promise, Problems and Implications for Practice.</td>
<td>Australia Accounting Review, Vol.9, No. 1, 1999</td>
<td>1999</td>
<td>(with S. Biggs and R. Simnett)</td>
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<tr>
<td>Title</td>
<td>Journal/Book</td>
<td>Page(s) and Year(s)</td>
<td>Authors</td>
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<tr>
<td>How to Prepare Better Accounting Systems Flowcharts</td>
<td>The Practical Accountant, November 1986, 106-118</td>
<td>(with D. Faye)</td>
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<tr>
<td>Towards a Contingency View of Audit Evidence</td>
<td>Auditing: A Journal of Theory and Practice, (Fall 1985)</td>
<td>(with G. Holstrum)</td>
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<td>Managing the Big Eight</td>
<td>New Management, (1985)</td>
<td>(with Mary Washington)</td>
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<td>Evaluating the Effectiveness of Audit Procedures</td>
<td>Auditing, A Journal Theory and Practice (Fall 1982)</td>
<td>(with A. Wright)</td>
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<tr>
<td>Economic Considerations In Designing Audit Programs</td>
<td>Journal of Accountancy (March 1980)</td>
<td>(with J. L. Turner)</td>
<td></td>
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<tr>
<td>Discussion of “Patterns, Prototypes and Predictions: An Exploratory Study,” Studies on Human Information Processing in Accounting, Journal of Accounting Research, (1976), pp. 139-144</td>
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<tr>
<td>Simulation of Information Choice</td>
<td>Decision Sciences, (April 1976)</td>
<td>pp. 219-234</td>
<td>(with M. A. Vasarhelyi and John Fellingham)</td>
<td></td>
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<tr>
<td>“Sistemas de Informacao para Administraca,” Revista De Administracao De Empresas (July/August 1974), pp. 69-78</td>
<td></td>
<td></td>
<td>(with M. A. Vasarhelyi)</td>
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<td>Concepts of Information Value and Accounting: A Reply</td>
<td>The Accounting Review (April 1973)</td>
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<td>The Value of Budget Information</td>
<td>The Accounting Review, (July 1973)</td>
<td>(Winner of the 1973 AAA Manuscript Contest Award.)</td>
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<td>“A Decision Tree Approach to the Methodological Decision Process,” The Accounting Review (October 1972)</td>
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<tr>
<td>Accounting Education in a Changing World</td>
<td>The California CPA Quarterly, pp. 9-12, 34 (1970), Special Issue (with J. J. McDonough)</td>
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<tr>
<td>Comparative Values of Information Structures</td>
<td>Journal of Accounting Research, Empirical Research</td>
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Refereed Conference Proceedings & Other Publications


### University Presentations of Scholarly Papers

<table>
<thead>
<tr>
<th>University Presentations (National):</th>
<th>University Presentations (International):</th>
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<tbody>
<tr>
<td>Arizona State University</td>
<td>Aarhus Business School, Denmark</td>
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<td>Boston College</td>
<td>Auckland University, New Zealand</td>
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<td>Boston University</td>
<td>Australian National University,</td>
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<tr>
<td>California State University, Los Angeles.</td>
<td>Benaras Hindu University, India</td>
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<td>California State University, Long Beach</td>
<td>Bond University, Australia</td>
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<td>California State University, Northridge</td>
<td>Catholic University, Tilburg, Netherlands</td>
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<td>California State University, Fullerton</td>
<td>Chengchi University, Taiwan</td>
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<td>Claremont McKenna</td>
<td>Chulalongkorn University, Bangkok, Thailand</td>
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<td>Columbia University</td>
<td>City University, Hong Kong</td>
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<td>Duke University</td>
<td>Edith Cowan University, Australia</td>
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<td>East Tennessee State University</td>
<td>Griffith University, Australia</td>
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<td>Harvard University</td>
<td>Griffith University Gold Coast, Australia</td>
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<td>Loyola Marymount</td>
<td>Hamilton University, Canada</td>
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<td>New York University</td>
<td>Hong Kong University of Science &amp; Technology</td>
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<td>Ohio State University</td>
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<td>Northeastern University</td>
<td>Laval University, Canada</td>
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<td>Northwestern University</td>
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<td>Pennsylvania State University</td>
<td>Nanyang Technological University, Singapore</td>
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<td>Rice University</td>
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<td>Stanford University</td>
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<td>Rutgers University</td>
<td>Norwegian School of Business and Economics</td>
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<td>University of Alabama</td>
<td>Shanghai Jiao Tong University</td>
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<td>University of Arizona</td>
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<td>University of California, Berkeley</td>
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<td>University of California, Irvine</td>
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<td>University of California, Los Angeles</td>
<td>Universidad de Sevilla, Spain</td>
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<td>University of California, Riverside</td>
<td>Universiti Kebangsan Malaysia, Kuala Lumpur</td>
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<td>University of Chicago</td>
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<td>University of Maryland</td>
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<td>University of Minnesota</td>
<td>University of Nanjing, China</td>
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<td>University of Montana</td>
<td>University of New England, NSW, Australia</td>
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<td>University of Nebraska</td>
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<td>University of Nevada</td>
<td>University of Otago, New Zealand</td>
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<td>University of Pennsylvania</td>
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<td>University of Rochester</td>
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<td>University of Texas</td>
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<td>University of Washington</td>
<td>Varanasi University, India</td>
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<td>University of Wisconsin</td>
<td>Victoria University, New Zealand</td>
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<td>Victoria University of Technology, Melbourne, Australia</td>
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## Presentations at Conferences and Meetings

<table>
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<tr>
<th>Conference/Event</th>
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<tbody>
<tr>
<td>ABO Research Conference</td>
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<tr>
<td>Accounting &amp; Finance Association of Australia and New Zealand</td>
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<td>American Accounting Association</td>
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<td>American Institute of CPAs</td>
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<td>ANCAAR Audit Research Forum.</td>
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<td>Audit Judgment Symposium</td>
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<td>Bayesian Conference</td>
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<td>Bell Labs</td>
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<td>Canadian Academic Accounting Associations</td>
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<tr>
<td>China Association of Finance and Accounting</td>
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<tr>
<td>Decision Sciences Institute</td>
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<tr>
<td>Dutch Association of Auditors</td>
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<tr>
<td>EIASM Workshop on Audit Quality</td>
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<tr>
<td>European Audit Research Network</td>
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<td>European Association of Accountants</td>
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<tr>
<td>European Institute for Advanced Studies in Management</td>
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<tr>
<td>First AAA Globalization Conference, Taipei</td>
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<td>Indian Institute of Chartered Accountants</td>
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<td>Indian Accounting Association</td>
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<td>Institute of Internal Auditors</td>
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<td>The Institute of Management Science</td>
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<tr>
<td>International Conference on Information Systems</td>
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<td>International Conference on Contemporary Accounting Issues</td>
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<td>International Conference on Systems Science</td>
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<tr>
<td>International Symposium on Audit Research</td>
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<td>Illinois Audit Research Symposium</td>
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<td>Kansas Audit Symposium</td>
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<td>Maastricht Audit Research Symposium</td>
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<td>University of Southern California Audit Judgment Symposium</td>
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<td>Waterloo Audit Symposium</td>
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</tbody>
</table>
EDUCATION

Doctor of Philosophy (PhD), May 2010
Claremont Graduate University, Claremont, CA
Concentration: Information Systems & Technology
Cognate Minor: Business Management

Master of Business Administration (MBA), May 2000
University of Southern California, Los Angeles, California
Concentration: Business Management

Bachelor of Science (BS), June 1990
California State Polytechnic University, Pomona, California
Concentration: Business Administration

SCHOLARSHIPS/FELLOWSHIPS

Claremont Graduate University Fellowship Award (2006-2009)
California State University Chancellor’s Doctoral Incentive Program (2007-2010)
California State University Chancellor’s Mini-Grant for Scholars (2009)

PUBLICATIONS

Journal Articles


Kim, R.H. Toward Artifact Design of Self-Directed Learning System. (Submitted)

Conference Proceedings


**RESEARCH IN PROGRESS**

Knowledge Management in the Social Learning Environment  
Exploring Video Sharing as Means for Collaborative Learning

**RESEARCH GRANT**

Statewide Business Industry Collaborative - Business/CIS Education Mini-Grant, $6,000, 2010-2011 (Principal Investigator)

**PROFESSIONAL EMPLOYMENT**

**University of California, Riverside, CA** (September 2010 – Present)  
**Adjunct Faculty, College of Business, Accounting and Information Systems Department**

- Courses taught: Management of Information Systems, Database Management, and Systems, Analysis & Design. (Class size of up to 350 students.)
- Provide guidance to assigned teaching assistants and ensure alignment with my course curriculum.
- Student Club Advisor for Women in Information Technology. (Created a new student club on campus June 2011.)
Claremont Graduate University, Claremont, CA (August 2011 – Present)
Adjunct Faculty, College of Information Systems and Technology

- Course taught: Knowledge Management (graduate course)
- Engage students in research and conversations relating to knowledge management theory and practice. Facilitate knowledge construction by reviewing case studies and articles.

California State Polytechnic University, Pomona, CA (January 2006 – Present)
Adjunct Faculty, College of Business, Management & Human Resources Department

- Courses taught: Human Resources Information Management, Business Communication for Management, and Training and Development.
- Advise students in meeting academic and professional goals.
- Served as a faculty judge for the college’s internship program, “The Intern.”

PROFESSIONAL SERVICES

Paper/Journal Reviews

AIS Transactions on Human-Computer Interaction, 2011
Decision Sciences Journal of Innovative Education, 2011
International Conference on Information Systems, 2010 and 2008
Organization Behavior Teaching Conference, 2010
Pervasive Technology Conference, 2009
Southern Association for Information Systems, 2009
International Conference on Design Science Research in Information Systems and Technology, 2008

Institution

Conference Committee Member for Audio and Video, National Business Education Association Conference, San Diego, CA, March 2010
Student Council for New Student Orientation, School of Information Systems, Claremont Graduate University, Claremont, CA, 2007 and 2008
Volunteer for International Conference on Design Science Research in Information Systems and Technology, Pasadena, CA, May 2007

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM)
Association of Information Systems (AIS)
Academy of Management (AOM)
Organizational Communications & Information Systems (OCIS)
National Business Education Association (NBEA)
INDUSTRY WORK EXPERIENCE

University of Southern California, Los Angeles, California
October 1997 - January 2001

Assistant Director of Budget & Planning
Managed the university’s overall budgeting process. Worked in committees with deans and senior management to establish long-range goals. Assess academic initiatives, consider project investments, and determined financial management policies.

Atlantic Richfield Company (ARCO), Los Angeles, California
April 1993 - September 1997

Manager of Accounting and Analysis, Wholesale Marketing
Assisted senior management in establishing long-range plans to develop ARCO’s domestic wholesale businesses. Developed business plans and negotiated contracts with suppliers, customers, and third parties to establish business alliances.

Senior Analyst for Retail Sales and Marketing, Retail Marketing Division
Financially evaluated various retail marketing projects and capital investments to determine economic feasibility and assess alignment with company goals and objectives. Developed financial tracking systems to evaluate new marketing programs.

Controller (Special Assignment from ARCO’s CFO and Executive VP), Occidental College, Eagle Rock, California
Supervised the business groups and provided direction for day–to–day accounting activities. Reviewed and wrote business policies and procedures to ensure protection of university assets. Consulted the college’s president and senior management on accounting for acquisitions and expenditures.

Corporate Internal Auditor, ARCO Corporate, Los Angeles, California
Examined various international and domestic ARCO companies for financial performance and process efficiencies. Wrote policies and procedures for improving business processes, and trained employees of foreign subsides to perform sound business practices.

MAI Inc., Walnut, California
March 1992 - April 1993

Manager of Accounting and Finance
Developed company budget and plan, forecasted sales, and analyzed company expenses. Supervised the accounting department. Worked with prospective investors and financial institutions in providing company information.

Heller Financial, Inc., Glendale, California
November 1990 - March 1992

Client Financial Analyst
Performed financial analysis and risk assessment of prospective and existing clients. Audited clients to examine financial stability and analyze credit.
PROFESSIONAL SKILLS

Enterprise Systems

Web 2.0 Applications
Wikis, Weblogs, Annotated Discussion Tools, Group Discussion Applications, and other social media technologies

Statistical Analysis Tool
SPSS

Learning Management Systems
Blackboard, WebCT, Sakai, and Moodle

Web and Multimedia Applications
Adobe Photoshop, CorelDraw, Macromedia Dreamweaver MX, and MS FrontPage

Office and Accounting Applications
MS Office Suite, QuickBooks, My Deluxe Invoices, Turbo Tax, VersaCheck, and Business Planning software

Rosemary Kim, Page 5 of 5
BAJIS DODIN
School of Business Administration (SoBA) and before Spring 2009 known as
The A. Gary Anderson Graduate School of Management (AGSM)
University of California, Riverside (UCR)
Office Number: 951 827 4284

Home Address:
1 Russell Court
Irvine, CA., 92617,
USA

Cell Phone: 949 232 6983
Home Phone: 949 872 2682
E-mail: bajis.dodin@ucr.edu

EDUCATION:
Ph.D. North Carolina State University at Raleigh, NC
Major: Production Management and Operations Research

MS, North Carolina State University at Raleigh, NC
Major: Production Management and Operations Research

Certificate IBM, Chicago and New York; GPSS and its Applications

MS, State University of New York at Plattsburg, NY
Major: Mathematics and Education

BS, State University of New York at Plattsburg, NY
Major: Mathematics

EMPLOYMENT:
2007- 2010 Associate Dean , Undergraduate Programs, SoBA/AGSM, UCR
1996 - Present Professor of Operations Management and Management Science (OM/MS) at
SoBA/AGSM, University of California Riverside (UCR)
2003 – 2006 Director of University of California Education Abroad Center (UCEAP) in Cairo,
Professor of OM/MS at American University in Cairo, Egypt. & AGSM of UCR
2000 – 2003 Associate Dean for Undergraduate Programs, AGSM
2002 – 2003 Manager of the AACSB Accreditation Project
1999 – 2000 Associate Dean for Academic Affairs, and Chair of the three AGSM Departments
1996 – 1999 Associate Dean for Academic Affairs, AGSM
1988 – 1996 Associate Professor of Operations Management and Management Science, AGSM
1993 – 1994 Fulbright Senior Scholar
1987 – 1991 Chair of the Undergraduate Business Administration Program
1984 – 1988 Assistant Professor of Operations Management and Management Science, AGSM
1981 – 1984 Assistant Professor, School of Business Administration, University of Wisconsin,
Milwaukee, WI
1974 – 78 Systems and Senior Systems Engineer, Pullman Standard, Chicago, IL

RESEARCH INTEREST:
Conduct research in the areas of Project Management, especially on the stochastic side, Scheduling,
and Inventory Control (many of the problems in these two areas of Operations management have been
combined to form Supply Chain Management), along with their applications in other functional areas
of business and engineering. The research is basic and applied oriented, and it appeared in the premier
journals. For details please see the list of publications, working papers, and professional presentations starting on the next page.

TEACHING INTEREST:

Teach graduate and undergraduate courses in Production and Operations Management, Management Science, Project Management, Production Planning and Scheduling, and Supply Chain Management,. Supervise graduate and undergraduate students in their research. Chaired eight Master Theses Committees, served on over 20 Master Theses Committees, and on 19 Ph.D. Committees, (Ph.D.s are all in other departments within UCR since SoBA/AGSM does not have a Ph.D. program yet, and the master’s thesis requirement has been made optional at AGSM over 18 years ago). Supervised over 50 independent studies and internships. Revised or initiated over 38 courses in the MBA and undergraduate Business Administration programs.

ADMINISTRATIVE & BUSINESS EXPERIENCES:

(Please see the SERVICES Section later in this resume). My administrative experiences are extensive and cover the wide range of higher education managerial and academic issues. In my services as Academic Associate Dean, Chair of Departments, Chair of Business Administration Program, Chair of AGSM faculty, Manager of the AASCB Accreditation project, Director of an UC Education Abroad Program Center, services on key Academic Senate and School committees such as Graduate Council, Committee on Educational Policy, MBA Committee, and UC Assembly along with one year as a Fulbright Scholar, and four years of business and industrial employment I dealt with most of the higher education academic and administrative issues. The application letter provides more details of these experiences; they include:

- Strategic planning for the school and campus
- Operational planning and budgeting for the school,
- Accreditation by AACSB,
- Building planning and facility management,
- Faculty recruitment, merits, promotions, and tenure,
- Faculty orientation, mentoring and retention,
- Staff recruitment, training, mentoring and evaluation,
- Development of new programs, evaluation and revision of existing programs,
- Develop new courses and revise many others,
- Students recruitment, orientation programs, admission criteria and procedures,
- Academic scheduling and staffing,
- Work and coordinate with the chairs of various departments in UCR, sometimes in more than one college/school on matters of interdisciplinary programs with business administration.
- Assist the dean and the assistant/associate dean for External Affairs on the issues of the advisory council, and community programs and outreach,
- Work in teams on various projects such as school website design, business incubators, evaluation of deans and top administrators, ….. .
- International education, and degree and course articulation..

AWARDS & GRANTS

- Fulbright Senior Scholars award for the academic year 1993-94.
- Winner of the Best Student Paper Award for the 1980 Student Paper competition of the Southeastern Chapter of The Institute of Management Science (TIMS).
- Winner of several research grants including grants from RTE-ASEA Corporation, City and County of Riverside, International Labor Organization (ILO) of the United Nations, UCR and UWM.
- Listed in several Who’s Who Registries
- Editorial board of International Journal of Applied Quality Management
- Editorial Board of Journal of Operations and Logistics (JOL)
PUBLICATIONS (REFEREED TECHNICAL JOURNAL PUBLICATIONS)


**REFEREED CONFERENCE PROCEEDINGS:**


MONOGRAPH:
38. Strategic Plan for Business Incubator for the City and County of Riverside (with T. Haugan), Graduate School of Management, UCR, Riverside, CA August 1988.

WORK UNDER REVIEW:
40. “Simulation of Stochastic Activity networks”, (with A. A. Elimam); will be submitted soon for an appropriate journal
41. “Quality Assurance in Project Management” (with A.A. Elimam); will be submitted soon for an appropriate journal

RESEARCH IN PROGRESS
42. “Financial Management in Global Supply Chains,” (with A. A. Elimam)
43. “TOPS: Totally Optimized Project System” (with A.A. Elimam).
44. “Project Compression in Stochastic Activity Networks.”

TECHNICAL REPORTS AND WORKING PAPERS
The following are some of the reports of projects I worked with in the years I was with Pullman Standard and thereafter; AGSM stopped processing its working papers series for the last several years:

- “Audit Scheduling with Overlapping Activities and Sequence Dependent Setup Costs,” (with A.A. Elimam) AGSM Report No. 09, 1996.
- “Transshipment Problem with Multi-period Multilateral Netting,” AGSM Report No. 01, 1996, UCR, Riverside, CA.
- “Project Management for External and Internal Auditing Scheduling” (with H. Chan) GSM Report No. 6, September 1986, UCR, Riverside, CA.
- “The Extreme Value Distribution and Stochastic Activity Network” (with M. Servanci), GSM Report No. 5, November 1985, UCR, Riverside, CA.
- “Production Plans and Schedules and Demand Information in Jobs-Shops,” GSM Report No. 4, August 1985, UCR, Riverside, CA.
- “Some Recent Advances in Activity Networks” (with S.E. Elmaghraby, A.M. Salem and A.H. Colby), OR Report No. 198, May 1984, NCSU, Raleigh, NC.
“Scheduling N Products on a Single Facility with Deterministic Demand,” Management Research Center, School of Business Administration, University of Wisconsin-Milwaukee, WI, December 1983


“Random Network Generation” (with Z.M. Naman), OR Report No. 179, June 1981, NCSU, Raleigh, NC.

“Approximating Criticality Indices in PERT Networks: Summary Results” (with S.E. Elmaghraby), OR Report NO. 174, April 1981, NCSU, Raleigh, NC.


PRESENTATIONS AND LECTURES


“Cash Management of Integrated Supply Chains”, (with Dr. A.A. Elimam); Presented at the 24th European Operations Research Annual Conference; Lisbon, Portugal; July 11-15, 2010

“Project Scheduling in the Management of Integrated Supply Chains”, (with A.A. Elimam); Presented at the School of Business Administration, UCR, Workshop on Supply Chain Management; Nov. 13, 2009.


“Simulation of Stochastic Activity Networks”, with A. A. Elimam, July 7- 12, 2008 INFORS; Johannesburg, South Africa.


• “Project Management: Challenges and Opportunities” with A. A. Elimam, National Conference for the Egyptian Society of Engineering Management,” Cairo, Egypt, Nov. 21 – 22, 2005

• “Project Scheduling in Agile Product Development”, with A.A. Elimam, Fall INFORMS National Conference, San Francisco, Nov. 13 -16, 2005


• “Totally Optimized Project System (TOPS)”, Invited seminar on Project Management at the School of Business, American University at Cairo, February 28, 2005.


• “Totally Optimized Project Management System (TOPS)”, Invited lecture at School of Business, University of Qatar, January, 19, 2004


• “Impact of Equipment Planning on Project Scheduling: Computational Results,” with A. A. Elimam, Fall INFORMS National Conference, Nov. 17-20, 2002, San Jose, California.


• "The Loading and Unloading of Liquid Products in Oceangoing Vessels in Multiple Journeys", with Elimam and Elhafsi, Fall INFORMS National Conference, Nov. 5-8, 2001, Miami Beach, FL.


• “Impact of Quality Assurance on Project Scheduling”, (with Elimam), 12th Annual Decision and Information Sciences Workshop; Istanbul, Turkey, July 6-7, 2000.


• “Scheduling N Productions on a Single Facility with Variable Demand”, (with A. Elhafsi), Fall INFORMS National Conference, November 7-10, 1999, Philadelphia, PA.


• “Group Technology in Project Scheduling,” (with A. A. Elimam and S. Sarin), Sixth International Conference on Project Management and Scheduling, July 7-9, 1998, Istanbul, Turkey.


• Project Scheduling & Equipment Planning,” (with A.A. Elimam), INFORMS Fall 1997 Conference, Dallas, October 26-29, 1997.

• “Totally Optimized Project System,” (with A.A. Elimam), Joint International Meeting of EUOR XV and INFORMS X~IV, Barcelona, Spain, July 14-17, 1997.

• “Integrated Project Scheduling and Material Planning with Variable Activity Duration and Rewards” (with A.A. Elimam, AGSM Workshop on Scheduling and Heuristic Search, May 8, 1997.

• “Project Management in Audit Staff Scheduling”, AGSM Seminar Series, UCR, April 1997.


• “Integrating Renewable Resources in Project and Material Planning,” (with A.A. Elimam), INFORMS Fall National Conference, November 3-6, 1996, Atlanta, GA.


• “Yield Management in Higher Education” (with A.A. Elimam) INFORMS Fall National Conference, New Orleans, LA, October 1995.

• “Tabu Search in Audit Scheduling” (with A.A. Elimam and E. Rolland), INFORMS Fall National Conference, New Orleans, LA, October 1995.

• “Audit Staff Scheduling,” Seminar Series, UCR, Riverside, CA May 1995.

• “Material Planning in Project Scheduling” (with A.A. Elimam), INFORMS Spring National Conference, Los Angeles, CA, April 1995.

• Incentives and Yield Management in Improving Productivity and Quality” (with A.A. Elimam), INFORMS Spring National Conference, Los Angeles, CA, April 1995.

• “Dominance Relations and Solution Procedure for the ELSP,” ORSA/TIMS Fall National Conference, Detroit, MI, October 1994.


• “Improving Quality and Productivity with Financial Incentives for Multi-Product Facilities” (with A.A. Elimam), ORSA/TIMS Fall National Conference, Phoenix, AZ, November 1993.
• “An Optimization-Based Productivity Improvement Incentive System” (with A.A. Elimam), Joint National Meeting of ORSA/TIMS, Anaheim, CA, November 3-6, 1991.
• “Identifying the k-Shortest Paths in Stochastic Networks,” Joint National Meeting of ORSA/TIMS Fall Conference, St. Louis, MO, October 1987.
• “Audit Staff Scheduling,” Graduate School of Management, University of California, Irvine, April 1987.
• “Project Management in Audit Scheduling” (with H. Chan), Joint National Meeting of TIMS/ORSA, Los Angeles, CA, April 1986.
• “Approximation of PERT Networks by the K Longest paths” (with M. Servanci), Joint National Meeting of ORSA/TIMS, Atlanta, GA, November 1985.
• “The Extreme Value Distribution and PERT Networks” (with M. Servanci), Joint National Meeting of ORSA/TIMS, Atlanta, GA November 1985.
• “Optimal Production Schedules and the Market Information,” Joint National Meeting of TIMS/ORSA, Dallas, TX, November 1984.


• “Bounding the Project Completion Time Distribution in PERT Networks,” Joint National Meeting of TIMS/ORSA, Orlando, FL, November 1983

• “Scheduling N Jobs on a Single Facility with Allowed Backordering,” Joint National Meeting of ORSA/TIMS, Chicago, IL, April 1983.


• “Project Planning and Control: A Status Report” (with S.E. Elmaghraby), Fall Industrial Engineering Conference, Washington, DC, December 1981.

• “Approximating the Criticality Indices of Activities and Paths in PERT Networks” (with S.E. Elmaghraby), Joint National Meeting of TIMS/ORSA, Toronto, Canada, May 1981.


SERVICES (Served or serving on the following):

PROFESSIONAL SOCIETIES AND ACTIVITIES

• Editorial Board:
  - Editorial Board of International Journal of Applied Quality Management
  - Editorial Board of Journal of Operations and Logistics (JOL).

• Member of:
  - Institute of Industrial Engineering (IIE)
  - Institute for Operations Research and Management Sciences (INFORMS)
  - American Production and Inventory Control Society (APICS)
  - Project Management Institute (PMI)
  - Fulbright Association
  - Some of the technical sections and local chapters of the above national/international organizations
  - Several national and local civic and social organizations

• Publication Chairman for the 32nd Joint National Conference of the ORSA/TIMS, held November 3-6, 1991, in Anaheim, CA.

• Executive Committee of the Technology and Engineering Society of INFORMS since 1999.

• Chaired and organized clusters and sessions in the National and International Conferences of TIMS/ORSA, INFORMS, and International Conference on Scheduling and Project Management.

• Organized AGSM workshop on Scheduling and Heuristic Search, May 8, 1997, and participated in organizing SoBA workshop on Supply Chain Management in November 12, 2009.

• Presented over 80 papers in National or International Conferences of IIE, TIMS/ORSA; INFORMS, International Scheduling and Project Management Conference, and Invited to lecture or present seminars in many universities and local organizations; see the above list of presentations.

• Served as an External Evaluator for several tenure reviews of faculty in premier research oriented universities.
• Listed in the Strathmore’s Who’s Who Registry; International Biographical Center, Cambridge, and few others

• Referee for:
  - Institute of Industrial Engineering Transactions (IIE Transactions)
  - Management Science
  - Operations Research
  - European Journal of Operational Research
  - Decision Sciences
  - Computers and Operations Research
  - International Journal of Production Research
  - Networks
  - Journal of Operations Management
  - National Science Foundation

American University, Cairo (AUC) Services

• Director of the University of California Study Center, (July 2003- 2006)
• Member of the International Students Committee to select AUC students for study abroad, including UC campuses, (July 2003-2006)
• Member of the Research Committee at the School of Business, Economics, and Journalism, (July 2003- 2006)

AGSM Services

• Associate Dean for Undergraduate Programs, 2000-2003, and again 2007- 2010
• Manager of the Accreditation Project, 2002 -2003
• Member of the Accreditation and Planning Committee, 1998- 2002
• Associate Dean for Academic Affairs, July 1996–2000
• Associate Dean and Chair of the two AGSM Departments 1999-2000
• Chair of Business Administration Program, 1987-91, 1996–03 and from 2007- 2010
• Elected chair of the faculty for the period 1995–97 and from 1991–93
• Chair of the Executive Committee for the period 1991-93, 1995–97
• Member of AGSM Executive Committee 1988-91, 1996-2003, and 2006 - 2010
• Member of the MBA Admission Committee 1995-96 and 1987-90
• Chair of Ph.D. Committee 1994-95
• Chair of AGSM Space and Building Committee 1992-93 and 1997-98, and 2001-02
• Member of By-laws Committee 1994-95
• Planning Committee 1991-92
• MBA Committee 1988-91, and 2000- 01
• Computer Committee 1984-87
• Recruiting committees chair or member (Chairman over 12 times and member over 15 times) many times for Management Science, Operations Management, and MIS within the period of 1985- 2003; member of seven other recruiting committees in 1999- 2000; member of recruiting committees for the two senior positions in SCM, and two senior positions in Finance 2007-08.
• Chairman of the Ad Hoc Committee to revise the OR/MS, MIS, P/OM, Stat., and Math curriculum for the MBA, and the Undergraduate Business Administration Programs.

UCR Campus Service

• Member of UCR Strategic Planning Committee on “Education Excellence” 2009- 2010
• Member of different Associate Deans committees, 2007- 2010
• Member of the Graduate Council, UCR, 2006 – 2008
• University of California Education Abroad Program, 2003 -2006
• Member of Committee on Educational Policy, 1996-1999, and 2010- 2011
• UCR Executive Committee 1995-97 and from 1991-93
• Undergraduate Council 1988-91
• Long Range Planning Subcommittee on Business Education 1988-89
• University Extension Committee 1986-88
• Commons Board of Governors 1986-87
• Served on several academic ad-hoc committees for appraisals, tenure, and promotion; Education Abroad Program; and for evaluating some high level campus administrators such as deans and EVC & Provost.

UC Service
• Director of the University of California Education Abroad Center in Cairo, 2003 - 2006
• Representative of UCR Faculty to the University of California Assembly, 2000- 2002

Other Academic Activities

Summer 1989   Taught Production and Operations Management in the Executive MBA, Graduate School of Management, University of California, Irvine, CA.,
1993/1994   Fulbright Exchange Scholar

1981-84 Services at University of Wisconsin

• Research and worked with local industry and businesses on practical problems. My research was centered in the areas of Stochastic Networks, Project Planning and Control, Scheduling and Inventory Control.
• Taught graduate and undergraduate courses in Production/Operations Management, Management Science and Statistics.
• Developed a series of forefront seminars, mostly in the areas of Networks and Project Management, for the business and industry managers and executives in greater Milwaukee area through the school’s Business Research Center.
• Served on the:
  - Management Science Committee (1981 - 84)
  - Long Range Planning Committee (1982 - 84)
  - Management Research Committee (1982 - 84)

Industrial and Business Experiences

Summer 2003–present: Consultant in the areas of Logistics, Distribution and Warehouse Management; SCM, and Project Management
Summer 1994  Worked with International Labor Organization of the UN to train management trainers, mostly in the area of Operations Management and Project Management.
Fall 1992  Worked with Rohr Industries, Riverside, CA, on minimizing the composite material scrap in producing cases for aircraft engines.
Fall 1991  Participated in workshops on total quality management for the Inland Empire business community; and more recently in several other organizations.
Winter 1988  Worked with Business Research Bureau of GSM on the Business Incubator for Riverside City and County. A complete study was presented to the city.
Fall 1983  Presented a series of forefront seminars for the business and industry executives and managers about the use of network models as management tools (through Business Research Center of the University of Wisconsin).
Summer 1982  Worked with RTE-ASEA Corporation, Waukesha, WI, on developing project management teams.
12/77 – 08/78    Senior Systems Engineer, Engineering Dept., Pullman Standard, Chicago, IL.
  to improve the efficiency and productivity of the Engineering Dept. by developing a management information system, database, working schedules, and coordinating with
other departments. Also, I worked independently on special assignments related to product design and manufacturing. See some of the technical reports listed earlier in this resume.

8/74 – 12/77 **Systems Engineer**, R&D Dept., Pullman Standard, Hammond, IN.

*Duties:* Market analysis, feasibility studies, proposal writing, data processing, use of statistical and management science analyses for design improvement, and applying OR and statistical techniques to engineering functions. Assisting program managers in project management.

**COMMUNITY SERVICES:**

- Lecturer and panelist on contemporary economic and political issues in Southern California World Affairs Council chapters (Orange County, and San Diego), UCR, and other organizations.
- Member of several civic and interfaith organizations.

**REFERENCES:** Will be provided upon request.
MOHSEN ELHAFSI
The A. Gary Anderson Graduate School of Management
University of California, Riverside CA 92521
Phone: (951) 827-4557
Fax: (951) 827-3970
E-mail: mohsen.elhafsi@ucr.edu

My research interest is in the general area of Operations and Supply Chain Management. It includes using optimization in the design, planning and control of large-scale industrial processes and service operations. My focus is on developing analytical models of complicated systems, developing solution procedures using quantitative techniques, and drawing managerial insights from the analysis of these models.

EDUCATION

<table>
<thead>
<tr>
<th>Degree</th>
<th>Field</th>
<th>Institution</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Ph.D.</td>
<td>Industrial Engineering</td>
<td>University of Florida</td>
<td>1995</td>
</tr>
<tr>
<td>M.S.</td>
<td>Industrial Engineering</td>
<td>University of Florida</td>
<td>1995</td>
</tr>
<tr>
<td>M.E./B.Sc.</td>
<td>Industrial Engineering</td>
<td>Ecole National d'Ingenieurs de Tunis</td>
<td>1988</td>
</tr>
</tbody>
</table>

PROFESSIONAL EXPERIENCE

- **2007 – present**
  - Associate Dean of MBA Program & Graduate Advisor
  - A. Gary Anderson Graduate School of Management, University of California, Riverside

- **2006 – 2007**
  - Visiting Professor
  - Ecole Centrale de Lille, France

- **2002 – present**
  - Associate Professor
  - A. Gary Anderson Graduate School of Management, University of California, Riverside

- **1997 – 2002**
  - Assistant Professor
  - A. Gary Anderson Graduate School of Management, University of California, Riverside

- **1996 – 1997**
  - Visiting Professor
  - A. Gary Anderson Graduate School of Management, University of California, Riverside

- **1995 – 1996**
  - Post Doctoral fellow
  - Dept. of Industrial and Systems Engineering, University of Florida

- **1988 – 1990**
  - Project Manager
  - Institut Regional des Science Informatiques et des Télécommunication,
Tunisia

FIELDS OF INTEREST

Operations and Supply Chain Management
Design and Management of Manufacturing and Service Systems
Mathematical Modeling and Operations Research

COURSES TAUGHT

Undergraduate Level
Production and Operations Management
Introduction to Management Science
Supply Chain Management

Graduate Level
Production and Operations Management
Logistics and Supply Chain Management
Introduction to Management Science
Statistics for Management
Applied Business Forecasting
Operations Planning and Control
Management Synthesis

AWARDS AND HONORS

$10,000 Committee on Research (COR) Fellowship Award: University of California, Riverside, 2007
Fulbright Fellowship Award for France: 2006-07
Regents Faculty Fellowship Award: University of California, Riverside, 2000-01
ΦΚΦ Honor Graduate, 1995
Teaching Assistantship: ISE Department, the University of Florida, 1994 –95
Research Assistantship: ISE Department, the University of Florida, 1991 – 94
High Honors Qualified Engineer Diploma: IE Department, Ecole Nationale d’Ingenieurs de Tunis, 1988
High honors Baccalaureate Diploma, 1982

LANGUAGES
English (Fluent)
French (Fluent, education language)
Russian (Two-year Certificate)

SERVICES AND PROFESSIONAL ACTIVITIES

School and Campus Wide Services
Graduate Advisor: 2007-present
Chair: Admission Committee, 2007-2008
Chair: Recruiting Committee (two senior positions in Supply Chain Management), 2007-2008
Member (non-voting): Executive Committee
Member: Graduate Program Committee, 2007-2008
Member: Internal Strategic Planning Steering Committee
Member: Senate Research Committee, 2007-2008
Member: Interdisciplinary Teams and Networks Grants Program Committee 2007-2008
Chair: Recruiting Committee for Dean’s Academic Appointment, 2004-2005
Chair: Resources Committee, 2004-2005
Chair: “Management Department: The Economic Approach”, 2003-04
Member: Strategic Planning Committee, 2003-04
Chair: MS/OM Recruiting Committee, 2002-03
Member: Steffy Chair Recruiting Committee, 2002-03
Member: Graduate Program Committee, 1997-2000, 2002-03
Member: Research Committee, 2000-2001
Member: MIS Recruiting Committee, 1997-1998
Member: Center for Research in Intelligent Systems (CRIS), 1996-present
Member: Ad hoc committee for 5th year appraisal evaluation 2002-2003
Member: Several Ph.D. Oral Examination, Statistics Department, 1999-2006

**Editorial Board**

The International Journal of Mathematics in Operational Research

**Session Chair**

2002 33rd Annual DSI Meeting, San Diego, California, Nov. 23-26, 2002
2001 National INFORMS Meeting, Miami, FL, November 4-7, 2001
2001 International Conference, Academy of Business and Administrative Sciences, Brussels, Belgium
2000 International Conference, Academy of Business and Administrative Sciences, Prague, Czech Republic
5th Industrial Engineering Research Conference, Minneapolis, MN, May 18-21, 1996

**Proposal Assessor**

Hong Kong Research Grants Council (RGC), 2000
Grants to Enhance and Advance Research (GEAR) Program, University of Houston, 2006.

**Journals Refereed**

PROFESSIONAL AFFILIATIONS

The Institute for Operations Research and Management Science, since 1991
The Manufacturing and Service Operations Society, since 1997
The Production and Operations Management Society, since 1993
The Institute of Industrial Engineering, since 1992
The Honor Society of Phi Kappa Phi, since 1995
The Fulbright Association, Since 2007
Sloan Industry Studies Program, since 2008

PUBLICATIONS

ARTICLES IN JOURNALS (TECHNICAL, REFEREED)


ARTICLES IN PROCEEDINGS (TECHNICAL, REFEREED)


SUBMITTED WORK: ARTICLES IN JOURNALS


WORK IN PROGRESS

31. “Optimal Control of Inventory Systems with Multiple Supply Sources.” With S. Benjaafar.

32. “Managing Production and Inventories in a System with Information on the Production and Demand Status with Multiple Non-Unitary Demand Classes”

33. “Managing VMI Systems in a Production and Inventory Context: Quantifying the benefits of VMI”


INVITED TALKS AT UNIVERSITIES

University of Geneva, College of Business (HEC), Switzerland, 2006.

University of Neuchâtel, College of Business (HEC), Switzerland, 2006

University of Montreal, Business School (HEC), Canada, 2005.

CONFERENCE PARTICIPATION-PAPER PRESENTATIONS

2008, 15th International Annual EUROMA Conference, (Production and Inventory Control of a System with Multiple Sources of Supply), University of Groningen, the Netherlands, June 15-18, 2008

2008, Production and Operations Management Society (POMS) Conference (Optimal Control of a Production-Inventory System with both Backorders and Lost Sales), San Diego, CA, May 9-12, 2008

2007 National INFORMS Conference (Optimal Control of a Production-Inventory System with both Backorders and Lost Sales), Seattle, WA, Nov. 3-7, 2007

2007, Production and Operations Management Society (POMS) Conference (Optimal Control of an Assembly Systems with Multiple Stages and Multiple Demand Classes), Dallas, TX, May 4-7, 2007

International Conference on Service Systems and Service Management (ICSSSM’06), (Optimal Control of Inventory Systems with Multiple Supply Sources”, University of Technology of Troys-France. October 25-27, 2006

2005 National INFORMS Conference (Optimal Control of Inventory Systems with Multiple Supply Sources), San Francisco, CA, Nov. 13-16, 2005

Operations Research 2005, International Scientific Annual Conference (Optimal Production and Inventory Control of Assemble-to-Order Systems with Multiple Customer Classes), Bremen, Germany, September 7-9, 2005

2005, Production and Operations Management Society (POMS) Conference (Optimal Control of an Assemble-to-order Systems), Chicago, IL, April 29-May 3, 2005

2004, 2nd World Conference and 15th Annual POMS Conference (Demand Allocation in Multiple-Product, Multiple-Facility Make-To-Stock Production Systems), Cancun, Mexico, April 30- May3, 2004

OR2003 - SYMPOSIUM ON OPERATIONS RESEARCH (Assignment and Loading of Liquid Chemicals to Ship Compartments), University of Heidelberg, Germany, September 3 - 5, 2003

Eighth Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics: Theory and Applications in Economics and OR/MS Vienna (Dynamic Loading of Liquid Chemicals to Ship Compartments), Austria, May 14-16, 2003

OR2002 - International Conference on Operations Research (Demand Allocation in Multiple-Product, Multiple-Facility Make-To-Stock Production Systems), University of Klagenfurt, Austria, September 2 - 5, 2002

2001 National INFORMS meeting (Transporting and Managing Inventories of Liquid Chemical products Using Oceangoing Vessels” and Demand Allocation in Multiple-Product, Multiple-Facility Make-To-Stock Production Systems), Miami Beach, Florida, Nov. 4-7, 2001

2001 International Conference, Academy of Business and Administrative Sciences, Brussels (Demand Allocation in Multiple-Product, Multiple-Facility Make-To-Stock Production Systems), Belgium, July 23-25, 2001


17th European Conference on Operational Research (Assignment and Loading of Liquid Chemicals to Oceangoing Vessels), Budapest, Hungary, July 16-19, 2000

2000 International Conference, Academy of Business and Administrative Sciences (Optimal Lead-Time Planning in Serial Production Systems with Earliness and Tardiness Costs), Prague, Czech Republic, July 10-12, 2000

National INFORMS Meeting (“Assignment and Loading of Liquid Chemicals to Oceangoing Vessels” and “The Use of Flowlines to Simplify Routing Complexity in Two-Stage Flowshops”), Salt Lake City, UT, May 7-10, 2000

11th Annual Meeting of the Production Operations Management Society (Scheduling of a Multi-Item-Single-Facility System with Time Varying Demands and Inventory and Backorder Costs), San Antonio, TX, April 1-4, 2000

National INFORMS Meeting (Scheduling of a Multi-Item-Single-Facility System with Time Varying Demands and Inventory and Backorder Costs), Philadelphia, PA, November 7-10, 1999
9th International Conference on Flexible Automation and Intelligent Manufacturing, Tilburg University, The Netherlands, (A Production Planning Model for an Unreliable Production Facility: Case of Finite Horizon and Single Demand) June 23-25, 1999

National INFORMS Meeting, (A Production Planning Model for an Unreliable Production Facility: Case of Finite Horizon and Single Demand), Cincinnati, OH, May 2-5, 1999


National INFORMS Meeting (Optimal and Near Optimal Control of a Two-Part-Type Stochastic Manufacturing System with Dynamic Setups), Dallas, TX, October 26-29, 1997

National INFORMS Meeting (Multi-Period Production Planning and Control with Demand and Cost Fluctuations), San Diego, CA, May 4-7, 1997

Production and Operations Management Society, Eighth Annual Meeting (Scheduling of an Unreliable Manufacturing System with Nonresumable Setup Changes), Miami, FL, April 12-15, 1997

National INFORMS Meeting (The Common Cycle Economic Lot Scheduling Problem with Backorders: Benefits of a Controllable Production Rate), Atlanta, GA, November 3-6, 1996

5th Industrial Engineering Research Conference (Production and Setup Control in a Stochastic Manufacturing System), Minneapolis, MN, May 18-21, 1996

National INFORMS Meeting (Production Scheduling in a Price Competition) New Orleans, LO, October 29 – November 1, 1995

National INFORMS Meeting (Optimal Production and Setup Control of a Dynamic Two-Product Manufacturing System: Analytical Solution), Los Angeles, CA, April 23-26, 1995

National ORSA/TIMS Meeting (Optimal Production Control of a Dynamic Two-Product Manufacturing System with Setup Costs and Setup Times), Boston, MA, April 24-27, 1994
Long Gao
February 20, 2012
221 Anderson Graduate School of Management
University of California
Riverside, CA 92521
Tel: 951-827-5284
Email: long.gao@ucr.edu
URL: longgao.wordpress.com

Research
Interests
Supply chain management, inventory-production system, revenue management, probability & simulation

Education
- Ph.D. in Business Administration & Operations Research
  THE PENNSYLVANIA STATE UNIVERSITY
  2002-2007
- M.E. in Engineering Physics
  TSINGHUA UNIVERSITY, CHINA
  2000-2002
- B.E. in Engineering Physics
  TSINGHUA UNIVERSITY, CHINA
  1996-2000

Working
Experience
- Assistant Professor
  Anderson Graduate School of Management, UC, Riverside
  July ’08-Present
- Assistant Professor
  Dept. of MIS, OM & DSC, University of Dayton
  August ’07- May ’08
- Research Assistant
  Dept. of Supply Chain & Information Systems, Penn State University
  Spring ’05- Summer ’07

Journal
Publications

Working
Papers
- “Optimal Inventory Control with Retail Pre-packs,” Michael Freimer, Long Gao, Doug Thomas, revision for 2nd review in Production & Operations Management.
Presentations

- “Managing an Available-to-Promise Assembly System with Dynamic Short-Term Pseudo Order Forecast,” with Susan Xu, Michael Ball, The University of Sydney, June 10, 2011.
- “Yield Management in Freight Transportation,” with Mike Gorman, Tsinghua University, May 29, 2008.
- “Optimal Inventory Control Using Retail Pre-packs,” with Michael Freimer and Doug Thomas, Purdue University, March, 2007.

Teaching Experience

- **Instructor**
  - MGT 201: Quantitative Analysis (MBA core) University of California, Riverside Winter ’09, ’10, ’11, ’12
  - MGT 201: Operations Management (MBA core) University of California, Riverside Spring ’12
  - MGT 239: Simulation for Business (MBA elective) University of California, Riverside Spring, Fall ’09, Spring, Fall ’10
MGT 291: Directed Studies (MBA elective)  
Instructor  
University of California, Riverside  
Winter, Spring ’10, Spring ’11

BUS 125: Simulation for Business  
Instructor  
University of California, Riverside  
Spring Fall ’10

DSC 210: Statistics for Business I  
Instructor  
University of Dayton  
Fall ’07, Spring ’08

Introduction to Statistics for Business  
Final list of Dilwyn Paiste III Teaching Award, 2005

Teaching Assistant  
Demand Fulfillment (MBA)  
The Pennsylvania State University  
Spring ’06

Teaching Assistant  
Introduction to Statistics for Business  
The Pennsylvania State University  
Fall ’04, Spring ’05, Fall ’05, Fall ’06

Honors & Grants

- Omnibus Research Award, UCR, 2010, 2011
- Finalist, Dilwyn Paiste, III Teaching Award, 2005
- Smeal Dissertation Research Award, 2005
- Smeal Graduate Fellowship, Pennsylvania State University, 2002
- Guanghua Scholarship, Tsinghua University, 2001
- Academic Excellence Scholarship, Tsinghua University, 1998, 1999

Professional Activities

- Member, Doctor Committee, Li Guo, Statistics, UCR, 2010
- Member, Scholarship Committee, AGSM, UCR, 2009
- Vice president, Penn State University INFORMS student chapter, 2005-2007
- Member, The Institute of Operations Research and Management Sciences (INFORMS)
- Member, Manufacturing and Service Operations Management Society (M&SOM)
- Member, Applied Probability Society (APS)
- 2006 CSCMP Doctoral Symposium, San Antonio, October, 2006
- INFORMS Future Academician Doctoral Colloquium, Pittsburgh USA, November, 2006

Computer Skills

- Languages: MATLAB, C/C++, FORTRAN
- Utilities: LaTeX, Minitab, OpenGL
Elodie Adida (Goodman)

School of Business Administration
University of California at Riverside
Anderson Hall Room 225
900 University Ave., Riverside, CA 92521
office: (951) 827-7882
cell: (617) 959-1419
e-mail: elodie.goodman@ucr.edu
URL: http://soba.ucr.edu/directory/faculty.html?netid=elodieg

Appointment:

Assistant Professor of Management Science (2012-present)
University of California at Riverside, School of Business Administration (Riverside, CA)

Assistant Professor of Industrial Engineering (2006-2012)
University of Illinois at Chicago, Department of Mechanical and Industrial Engineering (MIE) (Chicago, IL)

Education:

Ph.D. in Operations Research (June 2006). GPA: 5.0/5.0.
Dissertation title: Dynamic Pricing and Inventory Control: Uncertainty and Competition.
Thesis Advisor: Dr. Georgia Perakis, Professor of Operations Research at the Sloan School of Management and Operations Research Center, MIT.

Ecole Centrale Paris, Châtenay-Malabry, France (1999-2001)
Diplôme d’ingénieur (equivalent to a Master of Science in Engineering), December 2002.
Common core in general engineering. Ranked in top 5%.

Research Interests:

- Mathematical modeling
- Game theory and equilibrium problems
- Competition, coordination and efficiency
- Robust optimization
- Supply chain management
- Pricing and inventory management
- Contract design
- Operations research in health care and public policy

My broader research interests are in stochastic and deterministic optimization models and game theoretical models for decision-making problems with applications in pricing, supply chain and revenue management, as well as problems in health care, homeland security, public policy or transportation that could benefit from careful mathematical analysis.

Teaching Interests:

- Introduction to operations research
- Linear and nonlinear optimization
- Probability and stochastic systems
- Introduction to statistics
- Game theory
- Quantitative methods
- Supply chain management
- Operations management
- Revenue management and pricing
- Inventory management and production planning
JOURNAL PUBLICATIONS:


JOURNAL PAPERS SUBMITTED FOR PUBLICATION AND WORKING PAPERS:


“Competition and Coordination in a Two-Channel Supply Chain” (with Amy David). In preparation. 2012.

“Supply Chain Coordination under Consignment Contracts with Supplier Competition” (with Nantaporn Ratisoontorn). In preparation. 2012.

1Graduate student.
CONFERENCE AND BOOK PUBLICATIONS:

“An Investigation in Real-Time Bus Holding Policy” (with Qin Chen\(^2\) and Jie Lin). Forthcoming in *Proceedings of the 15th Hong Kong Society for Transportation Studies International Conference (HKSTS)*, 2010.


AWARDS AND DISTINCTIONS:

IIE Regional Outstanding Faculty Advisor Award (2012) First author of an article from *IIE Transactions* selected to be highlighted in the *IE Magazine* of May 2011.

UIC STEM Education Research Grant (PI): $5,000 (2010-2011)

UIC Faculty Scholarship Support award (PI): $1,000 (2009), $1,000 (2010), $1,000 (2011), $1,000 (2012)

UIC WISER (Women in Science and Engineering Research) award (PI): $5,000 (2008), $1,000 (2009), $6,000 (2010)

Outstanding reviewer for the journal *IEEE Transactions on Automatic Control* (2007)

*Georges Besse Foundation* Fellowship (2001)

*Jean Gaillard Memorial* Fellowship (2001)

*Hoschet Prize* (2000-2001)

SEMINAR PRESENTATIONS:


“Supply Chain Intermediation When Retailers Lead.” *University of California - Riverside, Anderson Graduate School of Management*, February 2012, Riverside, CA.

“Supply Chain Intermediation When Retailers Lead.” *San José State University, College of Business*, January 2012, San Jose, CA.

“Supply Chain Intermediation When Retailers Lead.” *Illinois Institute of Technology, Stuart School of Business*, January 2012, Chicago, IL.

“Public Policy Implications for a Vaccine Supply Chain: Operational Issues and Negative Network Effects.” *Illinois Institute of Technology, Stuart School of Business*, September 2011, Chicago, IL.

\(^2\)Graduate student.

“Economics of Vaccine Coverage and Public Policy Implications.” Northwestern University, Industrial Engineering and Management Sciences Seminar Series, October 2010, Evanston, IL.


“Dynamic Pricing and Inventory Control: Robust vs. Stochastic Uncertainty Models.” Purdue University, Biomedical Engineering Seminar, September 2007, West Lafayette, IN.


“Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition.” University of Illinois at Chicago, Department of Mechanical and Industrial Engineering Research Seminar, February 2006, Chicago IL.

“Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition.” University of Washington in St. Louis, Olin School of Business. The Boeing Center for Technology and Information Management Research Seminar, February 2006, St. Louis MO.

“A Robust Nonlinear Fluid Model of Dynamic Pricing and Inventory Control with no Backorder.” IBM Research T.J. Watson Labs, July 2004, Hawthorne NY.

CONFERENCE PRESENTATIONS:


“Supply Chain Intermediation When Retailers Lead.” INFORMS Annual Meeting, October 2012, Phoenix, AZ.

“Competition and Coordination in a Two-Channel Supply Chain.” INFORMS Annual Meeting, October 2012, Phoenix, AZ.


“Supply Chain Intermediation When Retailers Lead.” *POMS Annual Conference*, April 2012, Chicago, IL.

“Consignment Contracts with Retail Competition.” *POMS Annual Conference*, April 2012, Chicago, IL.

“Public Policy Implications for a Vaccine Supply Chain: Operational Issues and Negative Network Effects.” *INFORMS Annual Meeting*, November 2011, Charlotte, NC.

“Supply Chain Intermediation: A Three-Tier Competition Model.” *INFORMS Annual Meeting*, November 2011, Charlotte, NC.

“Consignment Contracts with Retail Competition.” *INFORMS Annual Meeting*, November 2011, Charlotte, NC.


“Economics of Vaccine Coverage and Public Policy Implications.” *INFORMS Annual Meeting*, November 2010, Austin, TX.


“Hospital stockpiling for disaster preparedness.” *IIE Annual Conference*, June 2010, Cancún, Mexico.

“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *Behavioral and Quantitative Game Theory Conference*, May 2010, Newport Beach, CA.

“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *INFORMS Annual Meeting* (Session Chair), October 2009, San Diego, CA.

“Hospital Stockpiling for Influenza Pandemics with Pre-set Response Levels.” *INFORMS Annual Meeting*, October 2009, San Diego, CA.

“Inventory Stockpiling and Sharing for Disaster Preparedness.” *INFORMS Annual Meeting*, October 2009, San Diego, CA.

“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *20th International Symposium on Mathematical Programming*, August 2009, Chicago, IL.

“Hospital Stockpiling for Influenza Pandemics with Pre-Determined Response Levels.” *IEEE International Conference on Service Operations, Logistics and Informatics (SOLI)*, July 2009, Chicago, IL.

“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *Manufacturing and Service Operations Management (MSOM) Annual Conference*, June 2009, Cambridge, MA.

“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *Ninth Annual INFORMS Revenue Management and Pricing Section Conference*, June 2009, Evanston, IL.
“Efficiency and Coordination in a Supply Chain with Competing Manufacturers and Retailers.” *Optimization Applications in Engineering and Applied Sciences Conference* (Session Chair), March 2009, Urbana-Champaign, IL.


“The Strategic Role of Capacity in a Joint Inventory Management and Pricing Game.” *INFORMS Annual Meeting* (Session Chair), October 2008, Washington, DC.


“The Strategic Role of Capacity in a Joint Inventory Management and Pricing Game.” *INFORMS Annual Meeting* (Session Chair), November 2007, Seattle, WA.

“A Game Theoretical Approach for Hospital Stockpile in Preparation for Pandemics.” *INFORMS Annual Meeting*, November 2007, Seattle, WA.

“The Strategic Role of Capacity in a Joint Inventory Management and Pricing Game.” *INFORMS Midwest Regional Conference*, August 2007, Evanston, IL.


“Dynamic Pricing and Inventory Control under Uncertainty.” *22nd European Conference on Operational Research, EURO XXII* (Session Chair), July 2007, Prague, Czech Republic.


“Dynamic Pricing and Inventory Control under Uncertainty.” *INFORMS Annual Meeting*, November 2006, Pittsburgh, PA.


“Dynamic Pricing and Inventory Control under Uncertainty.” *Sixth Annual INFORMS Revenue Management and Pricing Section Conference* (Session Chair), June 2006, New York, NY.

“Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition.” *INFORMS Annual Meeting*, November 2005, San Francisco CA.

“Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition.” *IFORS Triennial* July 2005, Honolulu HI.

“Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition.” *Fifth Annual*
INFORMS Revenue Management and Pricing Section Conference, June 2005, Cambridge MA.

“A Robust Nonlinear Fluid Model of Dynamic Pricing and Inventory Control with no Backorder.” INFORMS Annual Meeting, October 2004, Denver CO.


“A Nonlinear Fluid Model for Dynamic Pricing and Inventory Control.” INFORMS Annual Meeting, October 2003, Atlanta GA.

TEACHING EXPERIENCE:

Student advising:
- Pradnya Joshi (Masters student): 2007-08
- Nantaporn Ratisoontorn (PhD student): 2009-2012 (graduated 2012)
- Amy David (PhD student): 2010-present
- Qin Chen (PhD student co-supervised with Dr. Jane Lin): 2009-2012
- 4 undergraduate students

Operations Research I IE 471, UIC, Instructor (Fall 2008, Fall 2009, Fall 2010, Fall 2011)  

Probability and Statistics for Engineers IE 342, UIC, Instructor (Fall 2006, Spring 2007, Summer 2010, Fall 2010, Spring 2012)  

Financial Engineering IE 201, UIC, Instructor (Fall 2007, Spring 2008, Fall 2008, Spring 2009)  
Introductory course for undergraduate students with engineering majors. Principles and techniques of economic analysis in engineering and management science. Time value of money, interest rates, present worth analysis, rate of return analysis. Enrollment: 100.

Nonlinear Optimization IE 576, UIC, Instructor (Fall 2009, Fall 2011)  
Course for Masters and PhD students. Convex analysis, line search techniques, unconstrained and constrained optimization, optimality conditions, duality, convex and nonconvex optimization, interior point methods, and real-world applications. Enrollment: 14–17.

Course for undergraduate and graduate students. Sample space and probability definitions, random variables, Bernoulli and Poisson processes, Markov Chains, limit theorems. Enrollment: 300.

Data, Models, and Decisions 15.060, MIT, Teaching assistant (Fall 2004)  
Core curriculum course of the MBA program at the MIT Sloan School of Management. Introduces the fundamental techniques of using data to make informed management decisions. Basics of decision analysis, probability, statistics, regression, and optimization.
**Other Professional Experience:**

**Amaranth** (Hedge fund), Greenwich, CT (Summer 2005).
Summer intern in the Risk Management group.

**Goldman Sachs**, New York, NY (Summer 2004).
Summer intern in the Interest Rate Products group within the Fixed Income, Currency and Commodities Strategy division.

**BostonCoach**, Everett, MA (Summer 2003).
Summer intern.

**Service and Professional Memberships:**

UIC Honors College **Fellow** (2010–2012)
UIC Honors students **Faculty Advisor** (2010–2012)
UIC MIE Department **Advisory Committee member** (2010–2011)
UIC MIE Department **Faculty Secretary** (2006–2008)
Served on the **thesis committee** of 8 Masters or PhD students (2006–2012).
Active participant in **undergraduate recruiting** activities at UIC (2007–2012).

**Faculty Advisor**, UIC Student Chapter of the Institute of Industrial Engineers (2009–present).

**Affiliated Faculty Member** of the Transportation Center at Northwestern University (2010–present).


**Judge** of 2009 MSOM Student Paper Competition.
**Judge** for 2012 POMS College of Healthcare Operations Management Best Paper Competition.
**Reviewer** for 2011 and 2012 MSOM Conference paper submissions.

**Panel Reviewer** of research proposals submitted to the National Science Foundation: Computational Mathematics program (2010), Service Enterprise Systems program (2010, 2011).


**Member** of the Institute for Operations Research and the Management Sciences (INFORMS).
**Member** of the INFORMS Women in OR/MS Forum.
**Member** of the INFORMS Junior Faculty Interest Group Forum.
**Member** of the Institute of Industrial Engineers (IIE).
Curriculum Vitae

YUNZENG WANG

September 30, 2010

School of Business Administration, University of California at Riverside
Riverside, CA 92521-0203
Tel: 951-827-2932         E-mail: yunzeng.wang@ucr.edu
Website: http://www.agsm.ucr.edu/faculty/staff/wang.html

EDUCATION

Major: Operations Management          Minor: Management of Information Systems

M.A.Sc., University of Waterloo, Canada, 1993
Major: Management Sciences

M.Sc., Harbin Institute of Technology, China, 1986
Major: Industrial Engineering & Engineering Management

B.Sc., Shandong Polytechnic University, China, 1983
Major: Electrical Engineering

PROFESSIONAL EXPERIENCE

Full-Time Positions:

- Professor and Dean’s Distinguished Scholar in Supply Chain Management, School of Business Administration, University of California, Riverside, July 2008 – present

- Associate Professor (with tenure), School of Management, University of Texas at Dallas, July 2006 – June 2008

- Associate Professor (tenure granted), Weatherhead School of Management, Case Western Reserve University, July 2004 – June 2006

- Assistant Professor, Weatherhead School of Management, Case Western Reserve University, July 1999 – June 2004

- Assistant Professor, School of Business Administration, The University of Mississippi, August 1997 – June 1999

- Lecturer, Qingdao Institute of Chemical Engineering, China September 1986 - July 1990

Other Positions:

- Distinguished Adjunct Professor (honorary position), Hohai University, China, June 1, 2006 – May 31, 2009

- Sea-Sky Scholar & Distinguished Professor (honorary position), Dalian University of Technology, China, January 1 – December 31, 2008

- Visiting Associate Professor (part-time position), Molde College, Norway, August 2000 – July 2001
- Visiting Scholar, Dept. of Industrial Engineering, Texas A&M University, July 2000
- Visiting Scholar, Dept. of Management Sciences, University of Waterloo, Summer 1999
- Visiting Scholar, Dept. of Management Sciences, University of Waterloo, Summer 1998

ACADEMIC SERVICE

- Associate Dean of Academic Programs & Graduate Advisor, School of Business Administration, University of California, Riverside, July, 2010 – present
- Committee Member- UCR 2010-2020 Strategic Planning Subcommittee on Research and Creativity, UCR, 09/2009-03/2010
- Committee Member on Academic Integrity, University of California, Riverside, 2008-present
- IS Faculty Search Committee Chair, School of Business Administration, University of California, Riverside, 2008
- Ph.D. Program Committee Member, School of Business Administration, University of California, Riverside, 2008-2009
- Course Materials Fee (CMF) Advisory Committee Chair, School of Business Administration, University of California, Riverside, Winter 2009
- Director, Master of Science Program in Supply Chain Management, School of Management, University of Texas at Dallas, May 2007 – June 2008
- Director, Operations Management Ph.D. Program, School of Management, University of Texas at Dallas, July 2006 – June 2008
- University Faculty Senator, University of Texas at Dallas, 2007-2008
- Research Committee Member, Weatherhead School of Management, 2004 – 2006
- MBA Program Portfolio Committee Member, Weatherhead School of Management, July 2002 – March 2003.
- Undergraduate Program Committee Member, Weatherhead School of Management, 1999 – 2001
- Doctoral Program Redesign Committee, Dept. of Operations, Weatherhead School of Management, Fall 2003
- Research Seminar Series Coordinator, Dept. of Operations, Weatherhead School of Management, 1999 – 2005
- Doctoral Student Admissions and Financial Aid Committee Member, Dept. of Operations, Weatherhead School of Management, 2000 – 2006
- Faculty Search Committee Member, Dept. of Operations, Weatherhead School of Management, 2000, 2001

PROFESSIONAL SERVICE

- George B. Dantzig Dissertation Award Committee Chair, INFORMS, 2008
- Program Chair, 18th Annual Conference of the Production and Operations Management Society (POMS), Dallas, May 4-7, 2007
- George B. Dantzig Dissertation Award Committee Member, INFORMS, 2007
- **George Nicholson Student Paper Competition Committee Member**, INFORMS, 2004 – 2006

- **Guest Co-Editor**: Special Issue of *Asia Pacific Journal of Operations Research* on Economic Models in Supply Chain Management, 2009-2010

- **Senior and Associate Editors for Journals**:
  
  *Production and Operations Management* (Jan. 2009 – present)
  *IIE Transactions on Scheduling and Logistics* (September 2001 – August 2009)
  *Decision Sciences* (Jan. 2005 – present)

- **Editorial Board Members for Journals**:
  
  *Production and Operations Management* (Jan. 2004 – present)
  *International Journal of Inventory Research* (01/2005 – present)
  *International Journal of Strategic Decision Sciences* (01/2008 – present)
  *International Journal of Information Systems and Supply Chain Management* (Dec. 2008 – present) [www.igi-global.com/ijisscm](http://www.igi-global.com/ijisscm)

- **Ad hoc Referee for Journals**:


- **Ad hoc Referee for Funding Agencies**:

  *National Science Foundation (NSF) of the United States of America*  
  *Natural Sciences and Engineering Research Council of Canada*  
  *Hong Kong Research Grants Council*  

**HONORS and AWARDS**

- **Distinguished Faculty Speaker**, Council of Supply Chain Professionals, Dallas/Fort Worth Roundtable Meeting, October 9, 2006

- **Junior Faculty Best Paper Award**, Weatherhead School of Management, 2004

- **Nominated for Research Recognition Award**, Weatherhead School of Management, 2003

- **Nominate for Best Teaching Award**, Weatherhead School of Management, 2002

- **Junior Faculty Best Paper Award**, Weatherhead School of Management, 2001

- **George B. Dantzig Best Dissertation Award**, INFORMS (Institute For Operations Research and The Management Sciences), 2nd Prize, 1998

- **Citation of Excellence**, Highest Quality Rating, *ANBAR Electronic Intelligence*, 1997

- **Faculty Summer Research Program Grant Awards**, Weatherhead School of Management, 2000, 2001, 2002 and 2005

- **Faculty Research Program Grant Awards**, The University of Mississippi, 1998, 1999

TEACHING and DOCTORAL STUDENT ADVISING


Courses Taught

At School of Business Administration, University of California, Riverside
BUS 104 Decision Analysis & Management Science, undergraduate required course
BUS 129 Supply Chain Management, undergraduate elective
MGT 207 Operations Management for Competitive Advantage, Executive MBA core course

At School of Management, University of Texas at Dallas
OPER 6302 Operations Management, MBA core course
OPER 6V08 Spreadsheet Modeling, MBA elective

At Weatherhead School of Management
MBAC 425 Operations Management -- full-time MBA core course
OPMT 405 Operations Management – part-time MBA core course
OPMT / MKMR 476 Supply Management in the Supply Chain - MBA Elective
OPMT 480 Operations Strategy and Technology - MBA Elective
OPMT 350 Operations Management -- undergraduate required course
OPMT 504 A-B Research in Operations Management I-II – Ph.D. courses

Doctoral Students Advised

- Yuanjie He, (graduated in 2005, co-advised with Prof. Matt Sobel), Assistant Professor at College of Business Administration, California State Polytechnic University, Pomona
- Vera Tilson, (graduated in 2006, co-advised with Prof. Matt Sobel), Assistant Professor at William E. Simon Graduate School of Business Administration, University of Rochester
- Xiang Fang, (graduated in 2007), Assistant Professor at Sheldon B. Lubar School of Business of University of Wisconsin, Milwaukee.
- Jun Ru, (graduate in 2010), Assistant Professor at School of Management, The State University of New York at Buffalo

MAJOR CONSULTING PROJECTS

Rockwell Automation (2004 – 2006): product market pricing strategy analysis and decision support system development


RESEARCH

Research Interests
Supply Chain Management, Marketing-Operations-Finance Interfaces, After-Sales Service Operations, Production and Inventory Models, Stochastic Models and their Optimization

Publications

Refereed Journal Articles


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**Refereed Book Chapters**


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**Invited Research Seminars**

- **School of Business Administration, University of Miami**, March 25, 2010.
- **Faculty of Business, Hong Kong Polytechnic University**, November 7, 2009
- **Sauder School of Business, University of British Columbia, Canada**, September 14, 2009.
- Keynote Speech at **‘The Sixth International Symposium on Management Engineering’**, Dalian, China, August 5-7, 2009.
- **Anderson School of Management, University of California at Los Angeles**, May 12, 2009.
- Coachella Valley Business Leaders Roundtable, UCR Palm Desert Graduate Center, University of California Riverside, February 12, 2009.

- Dalian University of Technology, Dalian, China, November 4, 2008

- Hohai University, Nanjing, China, October 22, 2008

- Nanyang Business School, Nanyang Technological University, Singapore, July 23, 2008

- Department of Management Science & Engineering, Stanford University, May 6, 2008.

- Chinese Academy of Science, Beijing, China, March 13, 2008

- A. Gary Anderson School of Management, University of California at Riverside, February 4, 2008.


- Singapore Management University, September 27 & 28, 2007

- McCombs School of Business, University of Texas at Austin, September 14, 2007

- Council of Supply Chain Professionals, Dallas/Fort Worth Roundtable Meeting, October 9, 2006. (Distinguished Faculty Speaker.)

- Hohai University, Nanjing, China, May 5, 2006

- School of Management, University of Texas at Dallas, February 10, 2006

- Cox School of Business, Southern Methodist University, January 17, 2006.

- Rotman School of Management, University of Toronto, December 2, 2005

- Graduate School of Management, University of California at Irvine, December 10, 2004

- School of Business and Economics, Wilfrid Laurier University, Canada, November 30, 2004

- Fuqua School of Business, Duke University, October 15, 2004

- Faculty of Management, McGill University, Canada, May 2, 2003.

- Dept. of Industrial Engineering, University of Florida, February 28, 2003

- John M. Olin School of Business, Washington University in St. Louis, October 8, 2002

- Graduate School of Management, University of California at Irvine, May 10, 2002

- Weatherhead School of Management, Case Western Reserve university, September 27, 2001.

- Weatherhead School of Management, Case Western Reserve university, March 8, 2001.

- Molde College, Norway, August 9, 2000.

- William E. Simon Graduate School of Business Administration, University of Rochester, March 3, 2000.

- Krannert School of Management, Purdue University, February, 1999

- A. B. Freeman School of Business, Tulane University, March, 1999

- The Amos Tuck School of Business Administration, Dartmouth College, November 23, 1998.

- Department of Industrial Engineering, University of Toronto, April, 1997.

- Smeal College of Business, Pennsylvania State University, University Park, January 1997.
- Stern School of Business, New York University, December 1996.

Conference Presentations
Delivered over 50 presentations at national and international conferences.

REFERENCES
Available upon request
Curriculum Vitae

YUNZENG WANG

September 30, 2010

School of Business Administration, University of California at Riverside
Riverside, CA 92521-0203
Tel: 951-827-2932         E-mail: yunzeng.wang@ucr.edu
Website: http://www.agsm.ucr.edu/faculty/staff/wang.html

EDUCATION

  Major: Operations Management          Minor: Management of Information Systems
M.A.Sc., University of Waterloo, Canada, 1993
  Major: Management Sciences
M.Sc., Harbin Institute of Technology, China, 1986
  Major: Industrial Engineering & Engineering Management
B.Sc., Shandong Polytechnic University, China, 1983
  Major: Electrical Engineering

PROFESSIONAL EXPERIENCE

Full-Time Positions:
- Professor and Dean’s Distinguished Scholar in Supply Chain Management, School of Business Administration, University of California, Riverside, July 2008 – present
- Associate Professor (with tenure), School of Management, University of Texas at Dallas, July 2006 – June 2008
- Associate Professor (tenure granted), Weatherhead School of Management, Case Western Reserve University, July 2004 – June 2006
- Assistant Professor, Weatherhead School of Management, Case Western Reserve University, July 1999 – June 2004
- Assistant Professor, School of Business Administration, The University of Mississippi, August 1997 – June 1999
- Lecturer, Qingdao Institute of Chemical Engineering, China September 1986 - July 1990

Other Positions:
- Distinguished Adjunct Professor (honorary position), Hohai University, China, June 1, 2006 – May 31, 2009
- Sea-Sky Scholar & Distinguished Professor (honorary position), Dalian University of Technology, China, January 1 – December 31, 2008
- Visiting Associate Professor (part-time position), Molde College, Norway, August 2000 – July 2001
- Visiting Scholar, Dept. of Industrial Engineering, Texas A&M University, July 2000
- Visiting Scholar, Dept. of Management Sciences, University of Waterloo, Summer 1999
- Visiting Scholar, Dept. of Management Sciences, University of Waterloo, Summer 1998

ACADEMIC SERVICE

- Associate Dean of Academic Programs & Graduate Advisor, School of Business Administration, University of California, Riverside, July, 2010 – present
- Committee Member- UCR 2010-2020 Strategic Planning Subcommittee on Research and Creativity, UCR, 09/2009-03/2010
- Committee Member on Academic Integrity, University of California, Riverside, 2008-present
- IS Faculty Search Committee Chair, School of Business Administration, University of California, Riverside, 2008
- Ph.D. Program Committee Member, School of Business Administration, University of California, Riverside, 2008-2009
- Course Materials Fee (CMF) Advisory Committee Chair, School of Business Administration, University of California, Riverside, Winter 2009
- Director, Master of Science Program in Supply Chain Management, School of Management, University of Texas at Dallas, May 2007 – June 2008
- Director, Operations Management Ph.D. Program, School of Management, University of Texas at Dallas, July 2006 – June 2008
- University Faculty Senator, University of Texas at Dallas, 2007-2008
- Research Committee Member, Weatherhead School of Management, 2004 – 2006
- MBA Program Portfolio Committee Member, Weatherhead School of Management, July 2002 – March 2003.
- Undergraduate Program Committee Member, Weatherhead School of Management, 1999 – 2001
- Doctoral Program Redesign Committee, Dept. of Operations, Weatherhead School of Management, Fall 2003
- Research Seminar Series Coordinator, Dept. of Operations, Weatherhead School of Management, 1999 – 2005
- Doctoral Student Admissions and Financial Aid Committee Member, Dept. of Operations, Weatherhead School of Management, 2000 – 2006
- Faculty Search Committee Member, Dept. of Operations, Weatherhead School of Management, 2000, 2001

PROFESSIONAL SERVICE

- George B. Dantzig Dissertation Award Committee Chair, INFORMS, 2008
- Program Chair, 18th Annual Conference of the Production and Operations Management Society (POMS), Dallas, May 4-7, 2007
- George B. Dantzig Dissertation Award Committee Member, INFORMS, 2007
- George Nicholson Student Paper Competition Committee Member, INFORMS, 2004 – 2006

- **Guest Co-Editor:** Special Issue of *Asia Pacific Journal of Operations Research* on Economic Models in Supply Chain Management, 2009-2010

- **Senior and Associate Editors for Journals:**
  - *Production and Operations Management* (Jan. 2009 – present)
  - *IIE Transactions on Scheduling and Logistics* (September 2001 – August 2009)

- **Editorial Board Members for Journals:**
  - *International Journal of Inventory Research* (01/2005 – present)
  - *International Journal of Information Systems and Supply Chain Management* (Dec. 2008 – present) [www.igi-global.com/ijisscm](http://www.igi-global.com/ijisscm)

- **Ad hoc Referee for Journals:**

- **Ad hoc Referee for Funding Agencies:**
  - *National Science Foundation (NSF) of the United States of America*
  - *Natural Sciences and Engineering Research Council of Canada*
  - *Hong Kong Research Grants Council*

**HONORS and AWARDS**

- **Distinguished Faculty Speaker,** Council of Supply Chain Professionals, Dallas/Fort Worth Roundtable Meeting, October 9, 2006

- **Junior Faculty Best Paper Award,** Weatherhead School of Management, 2004

- **Nominated for Research Recognition Award,** Weatherhead School of Management, 2003

- **Nominate for Best Teaching Award,** Weatherhead School of Management, 2002

- **Junior Faculty Best Paper Award,** Weatherhead School of Management, 2001

- **George B. Dantzig Best Dissertation Award,** INFORMS (Institute For Operations Research and The Management Sciences), 2nd Prize, 1998

- **Citation of Excellence,** Highest Quality Rating, *ANBAR Electronic Intelligence*, 1997

- **Faculty Summer Research Program Grant Awards,** Weatherhead School of Management, 2000, 2001, 2002 and 2005

- **Faculty Research Program Grant Awards,** The University of Mississippi, 1998, 1999

TEACHING and DOCTORAL STUDENT ADVISING


Courses Taught

At School of Business Administration, University of California, Riverside
BUS 104 Decision Analysis & Management Science, undergraduate required course
BUS 129 Supply Chain Management, undergraduate elective
MGT 207 Operations Management for Competitive Advantage, Executive MBA core course

At School of Management, University of Texas at Dallas
OPER 6302 Operations Management, MBA core course
OPER 6V08 Spreadsheet Modeling, MBA elective

At Weatherhead School of Management
MBAC 425 Operations Management -- full-time MBA core course
OPMT 405 Operations Management – part-time MBA core course
OPMT / MKMR 476 Supply Management in the Supply Chain - MBA Elective
OPMT 480 Operations Strategy and Technology - MBA Elective
OPMT 350 Operations Management -- undergraduate required course
OPMT 504 A-B Research in Operations Management I-II – Ph.D. courses

Doctoral Students Advised

- Yuanjie He, (graduated in 2005, co-advised with Prof. Matt Sobel), Assistant Professor at College of Business Administration, California State Polytechnic University, Pomona
- Vera Tilson, (graduated in 2006, co-advised with Prof. Matt Sobel), Assistant Professor at William E. Simon Graduate School of Business Administration, University of Rochester
- Xiang Fang, (graduated in 2007), Assistant Professor at Sheldon B. Lubar School of Business of University of Wisconsin, Milwaukee.
- Jun Ru, (graduate in 2010), Assistant Professor at School of Management, The State University of New York at Buffalo

MAJOR CONSULTING PROJECTS

Rockwell Automation (2004 – 2006): product market pricing strategy analysis and decision support system development


Executive Council Meeting 1. Page 202
RESEARCH

Research Interests

Supply Chain Management, Marketing-Operations-Finance Interfaces, After-Sales Service Operations, Production and Inventory Models, Stochastic Models and their Optimization

Publications

Refereed Journal Articles


**Refereed Book Chapters**


**Invited Research Seminars**

- School of Business Administration, University of Miami, March 25, 2010.
- Faculty of Business, Hong Kong Polytechnic University, November 7, 2009
- Sauder School of Business, University of British Columbia, Canada, September 14, 2009.
- Anderson School of Management, University of California at Los Angeles, May 12, 2009.
- Coachella Valley Business Leaders Roundtable, UCR Palm Desert Graduate Center, University of California Riverside, February 12, 2009.

- Dalian University of Technology, Dalian, China, November 4, 2008

- Hohai University, Nanjing, China, October 22, 2008

- Nanyang Business School, Nanyang Technological University, Singapore, July 23, 2008

- Department of Management Science & Engineering, Stanford University, May 6, 2008.

- Chinese Academy of Science, Beijing, China, March 13, 2008

- A. Gary Anderson School of Management, University of California at Riverside, February 4, 2008.


- Singapore Management University, September 27 & 28, 2007

- McCombs School of Business, University of Texas at Austin, September 14, 2007

- Council of Supply Chain Professionals, Dallas/Fort Worth Roundtable Meeting, October 9, 2006. (Distinguished Faculty Speaker.)

- Hohai University, Nanjing, China, May 5, 2006

- School of Management, University of Texas at Dallas, February 10, 2006

- Cox School of Business, Southern Methodist University, January 17, 2006.

- Rotman School of Management, University of Toronto, December 2, 2005

- Graduate School of Management, University of California at Irvine, December 10, 2004

- School of Business and Economics, Wilfrid Laurier University, Canada, November 30, 2004

- Fuqua School of Business, Duke University, October 15, 2004

- Faculty of Management, McGill University, Canada, May 2, 2003.

- Dept. of Industrial Engineering, University of Florida, February 28, 2003

- John M. Olin School of Business, Washington University in St. Louis, October 8, 2002

- Graduate School of Management, University of California at Irvine, May 10, 2002

- Weatherhead School of Management, Case Western Reserve university, September 27, 2001.

- Weatherhead School of Management, Case Western Reserve university, March 8, 2001.

- Molde College, Norway, August 9, 2000.

- William E. Simon Graduate School of Business Administration, University of Rochester, March 3, 2000.

- Krannert School of Management, Purdue University, February, 1999

- A. B. Freeman School of Business, Tulane University, March, 1999

- The Amos Tuck School of Business Administration, Dartmouth College, November 23, 1998.

- Department of Industrial Engineering, University of Toronto, April, 1997.

- Smeal College of Business, Pennsylvania State University, University Park, January 1997.
- Stern School of Business, New York University, December 1996.

Conference Presentations
Delivered over 50 presentations at national and international conferences.

REFERENCES
Available upon request
September 1st, 2012

Chair Jose Wudka
Academic Senate

RE: Campus Naming Committee Request

Dear Jose:

As Interim Chair of the UCR Committee on Naming Campus Properties, Programs and Facilities, I am requesting the review and approval of the following naming opportunity:

- *Coil Brothers Atrium* is the proposed name for the atrium in the Culver Center. This naming opportunity has been recommended by the Dean, College of Humanities, Arts and Social Sciences, Stephen Cullenberg.

Please review the attached request and summary details. This proposed name requires approval by the Academic Senate before it is endorsed by the campus Naming Committee. Please note that given the size of the gift and the relatively limited scope of the naming request (the Atrium), I, like Dean Cullenberg, endorse this proposal. As you might imagine, the donor is anxious for our feedback, so I’m grateful for your consideration.

Sincerely,

[Signature]

Charles Rowley
Interim Vice Chancellor

Attachments

xc: Dean Cullenberg
   Vice Chancellor Hayashida
   Executive Director Palmer
   Campus Space Manager Murdock
   Assistant Vice Chancellor Smith
SUMMARY INFORMATION
UCR: NAMING CAMPUS PROPERTIES, ACADEMIC AND NON-ACADEMIC PROGRAMS, AND FACILITIES

Proposed Name: *Coil Brothers Atrium*
In the College of Humanities, Arts and Social Sciences

**Building Background:**
- Official Building Name: Culver Center for the Arts
- Building Name (12-byte): CULVER ROUSE
- Capital Asset Account Number: P5757
- Building Basic Gross Square Feet: 45,800 gsf
- Room Numbers: 0100A
- Room Assignable Square Feet: 6,050 asf

**Description:** Henry W. Coil Jr. will be contributing $900,000 to provide general support for the Culver Center of the Arts. Jacques Yeager is donating $100,000 of which $25,000 has already been received. In recognition of the gifts, the atrium space will be named the *Coil Brothers Atrium*.

See attached Background Information.

**Gift Amount:** $1,000,000
**Gift Agreement (bequest) executed:** At the time of death.
INITIAL REQUEST FOR APPROVAL TO NAME/ESTABLISH A PROPERTY, PROGRAM OR FACILITY

This form is to help review gifts for compliance with academic plans and priorities, and to facilitate campus review procedures for namings.

Upon completion of this request form, the Dean/Unit Head forwards it for signature to the Associate Vice Chancellor, Development and Vice Chancellor, University Advancement. The Associate Vice Chancellor, Development or designee will submit the request, with draft gift agreement and supporting documentation to the Executive Vice Chancellor and Provost and Vice Chancellor for Academic Planning & Budget for campus review. If approved for recommendation, the EVC&P’s Office follows the appropriate procedure for Naming of Properties, Programs and Facilities.

I. Background Information:
   A. Submitted by:
      Name: Dean Stephen Cullenberg
      Title, College/Unit: Dean, College of Humanities, Arts and Social Sciences
   B. Type of Gift and Comments:
      This is a combination current use cash gift of $100,000 from private donor, Jacques Yeager, and irrevocable bequest of $900,000 from private donor, Henry Coil, to name the atrium of the Barbara and Art Culver Center of the Arts in the College of Humanities, Arts and Social Sciences.
   C. Proposed name (if any, involving gift): Coil Brothers Atrium
   D. Honorific naming (no gift involved):
   E. Proposed use(s):
      The Culver Center Atrium is used for a variety of performances, exhibitions and events under the direction of the Executive Director of UCR ARTSblock.

II. Academic Information: (please attach explanation)
   A. Academic Justification: Explain how the proposed gift or endowment fits into the College/Unit’s Academic Plan.
      The College of Humanities, Arts and Social Sciences (CHASS), in accordance with UCR policy, will name the atrium of the Barbara and Art Culver Center of the Arts the Coil Brothers Atrium
      The mission of the College of Humanities, Arts, and Social Sciences (CHASS) is focused on high level research and scholarship, teaching undergraduate students, and training graduate students for professional life. The naming gift from Henry Coil and Jacques Yeager will provide support for performance, operations and mission specific needs of the UCR Culver Center.
B. Resources: Describe the resources that will be necessary to support the proposed Property/Program/Facility (e.g., other funding.) Please refer to the College/Unit Academic Plan as appropriate.

No additional resources are needed. The Barbara and Art Culver Center of the Arts is an existing building supported through private donations and the College of Humanities, Arts and Social Sciences.

II. Contribution Information:
A. Total amount of private funds expected to be committed: $1,000,000.
B. Form of private contribution(s):

$900,000 Irrevocable Bequest
$100,000 Cash

C. Source(s) of private contribution(s):

<table>
<thead>
<tr>
<th>Donor(s)</th>
<th>Amount(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henry W. Coil</td>
<td>$900,000</td>
</tr>
<tr>
<td>Jacques S. Yeager</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

E. Will this gift/pledge be anonymous (donor requests no publicity)? No
IV. College/UCR/UC Commitment:

A. Will any additional college, campus-wide or system-wide resources be sought/required (e.g., space, special facilities, equipment, etc.)? How will they be funded?

*No additional campus resources will be needed*

B. If Property, Program or Facility, has consultation with appropriate campus/UC entities occurred? ____________________________.
   (Attach supporting documents.)

IV. College/Unit/Faculty Consultation
This naming has been reviewed by and received approval from the faculty of the Department of Dance in the College of Humanities, Arts and Social Sciences affected by the named building, etc.

Submitted by:

Dean Stephen Cullenberg, College of Humanities, Arts and Social Sciences  
8/14/12

Joel B. Munson, Associate Vice Chancellor, Development  
8/7/12

Peter Hayashida, Vice Chancellor, University Advancement  
8/10/12

Send completed request form with:
- draft gift document and
- any supporting information

to Associate Vice Chancellor, Development, 257A Highlander Hall, Campus.
September 21, 2012

To: Charles J. Rowley, Interim Vice Chancellor
Finance & Business Operations and CIO

From: Jose Wudka, Chair
Riverside Division Academic Senate

Re: Response to the call for comments on the UCOP Draft Policy on International Activities

Thank you for the opportunity to comment on the Draft Policy on International Activities. Please find below the comments from the Senate.

None of the comments refer to the technical aspects of the document, they instead relate to various points of confusion related to the terms being used. Most of these issues can be addressed by including appropriate clarifications.

Certain aspects of the document are difficult to understand because of the lack of definitions or references. For example "activity" and "International Activity" are not defined; the policy should define not only what constitutes an international activity under this policy, but also what does not. In particular this policy should abstain from regulating:

- Individual research activity carried out internationally, such as field, library and museum work)
- Participation of individuals in international meetings, workshops, and courses; and the participation of individual researchers in organizing these kinds of activities.
- Regular international collaborations that may involve one or many UC researchers from one or several UC campuses. Note that it is also unclear which chancellor will have oversight in case the international activity involve several UC campuses.

As a related item, the ambiguity in the definition of "activity" makes the tax-exempt status mentioned in section III.A.2 confusing: would this refer also to honoraria for seminars?
The term "propaganda" should also be clearly specified. The ambiguous presentation can potentially be used to restrict legitimate academic activities that relate to controversial subjects. This is not intended to suggest that no boundary is acceptable, but instead that restrictions should be clearly specified while taking into account the activities of the faculty.

Another source of ambiguity is the use of the term "sponsor". Under the new policy chancellors are allowed to "establish, operate, oversee and terminate all campus-Sponsored International Activities other than Subsidiaries" (section III and II.A.1). Does this refer only to activities supported using campus physical resources and/or funding? Or, for example, if a department encourages a faculty member to participate in an international conference (and perhaps also arranges for a short term teaching relief), would the department be considered as sponsoring the conference? Could the chancellors limit this last type of activities?

In addition, the terms “reputable” and “of recognized standing” in sections III B.5b and III B.5c have different meanings, and that one or the other should be used, or some additional clarification be added.

Finally, in connection with the statement on “Informational materials” in section III D it might be prudent to note that the list of items exempted from this category is not intended to include all books irrespective of value and subject matter.
Joint Administrative/Senate Workgroup on Academic Graduate Student Issues
Membership

**CO-CHAIRS**
Robert Anderson  
Chair, Academic Senate  
UCOP/UCB

Suresh Subramani  
Executive Vice Chancellor  
UCSD

**SENATE MEMBERS**
John Crawford  
Chair, UCORP  
UCI

Rachael Goodhue  
Chair, CCGA  
UCD

Robert Powell  
Vice Chair, Academic Senate  
UCOP/UCD

**STUDENT MEMBERS**
Netta Avineri  
PhD Candidate in Applied Linguistics  
UCLA

Kathleen Fitzpatrick  
PhD Candidate in Biomedical Sciences  
UCSD

**ADMINISTRATIVE MEMBERS**
Ralph J. Hexter  
Provost and Executive Vice Chancellor  
UCD

Steve Olsen  
CFO and Vice Chancellor-Finance, Budget and Capital Programs  
UCLA

Andrew Szeri  
Dean, Graduate Division  
UCB

**UCOP PARTICIPANTS**
Lawrence Pitts  
Provost and Executive Vice President-Academic Affairs

Steven Beckwith  
Vice President-Research and Graduate Studies

Debora Obley  
Associate Vice President-Budget and Capital Resources
Report of the Administrative/Senate Workgroup on Academic Graduate Student Issues

Introduction

Graduate students are key to the University of California’s ability to meet its three-part mission of research, instruction, and public service under the California Master Plan for Higher Education. As students, they gain deep knowledge of a scholarly discipline and contribute ideas and vitality to the intellectual and cultural life of the University. As research assistants, they conduct original research that expands the domain of human knowledge and has far-reaching implications for industry, culture, and society. As teaching assistants, they enhance the instructional experience of UC undergraduates and gain training to enter the workforce as future teachers. As alumni, they go on to make important contributions to the California economy and to help the State meet its workforce needs for both private- and public-sector jobs requiring advanced training.

The national need for students with advanced degrees is growing. According to a recent report by the Council of Graduate Schools and the Educational Testing Service, Pathways Through Graduate School and Into Careers (http://pathwaysreport.org/rsc/pdf/19089_PathwaysRept_Links.pdf), between 2010 and 2020, about 2.6 million new and replacement jobs are expected to require an advanced degree. The number of jobs requiring a master’s degree will increase by about 22%, while the number of jobs requiring a doctorate or professional degree is expected to increase by 20%.

Moreover, the value of an advanced degree to an individual is substantial. According to the same report, the expected lifetime earnings for someone with a doctoral degree (excluding a professional degree) is $3.3 million – far higher than the expected lifetime earnings for someone with a master’s degree ($2.7 million) or a bachelor’s degree ($2.3 million).

Academic doctoral students are particularly important to the University’s research enterprise. Indeed, the achievements, prestige, and international renown of the University and its faculty would not be possible without them. Moreover, the importance of academic doctoral education at UC extends far beyond any single campus:

- Graduate education actively supports the University’s ability to attract $4.3 billion of external support annually for research, which generates new insights and industries that transform the world.
- UC awards over 3,500 PhDs annually, or 7% of the PhDs awarded nationwide.
- UC awards over 8% of all PhDs awarded in the U.S. to students who traditionally are underrepresented in higher education (African Americans, Latinos, Pacific Islanders and Native Americans).
- In California, UC awards 60% of all PhDs and 70% of all PhDs in STEM fields: science technology, engineering and mathematics.
- UC’s graduate programs produce 25% of all CSU and UC tenure-track faculty.
- With the benefit of graduate and post-doctoral research, UC has produced more than 500 start-up companies based on UC inventions and more patents than any other university in the nation.

Enrolling the most talented students is an essential goal of every great research university. While the primary aim of UC’s undergraduate programs is to educate California residents, UC’s academic doctoral programs compete with universities nationally and internationally to enroll the very best students in the world and this constitutes an important factor in the recognition of UC as a global brand.
Graduate Student Financial Support at UC

While universities compete based on a variety of factors – the quality of a given program, opportunities to work with specific faculty members, etc. – student financial support is an important tool for attracting the best students. For academic doctoral students, institutions are generally expected to fully cover a student’s tuition and fees and provide a competitive net stipend (financial support in excess of tuition and fees, to be used for living expenses) to enroll top talent.

The competitiveness of graduate student support for UC academic graduate students and its impact on the ability of the University to enroll the best students from the USA and abroad have been a longstanding concern at the University. Several administrative and faculty groups and committees have taken up the issue over time and concluded that both the size and composition of UC’s financial awards for academic graduate students are not fully comparable to the best offers UC students receive from competitor institutions.

Recently, concern about the competitiveness of UC’s awards has been joined by three related concerns:

- Tuition increases, which have been instituted in response to declining State support for the University’s budget, result in higher charges to faculty research grants unless those increases are offset with other resources. For certain grants, such as NIH-funded grants, total compensation levels are limited by federal guidelines. This restriction applies both to UC and its competitors; however, because many non UC campuses discount tuition charged to grants, this issue is more likely to arise at UC.

- Tuition increases potentially influence the University’s ability to attract top students and to provide them with essential employment opportunities at UC, such as teaching assistant and graduate student researcher appointments.

- Nonresident tuition, which is assessed in addition to UC’s in-state tuition, makes it especially challenging to support international students or to employ them as graduate student researchers, because they do not qualify for residency in one year like most domestic nonresident students, making their support packages more expensive. This nonresident student tuition (NRST) does add revenues to the UC campuses, but to the extent that it is not returned to the departments and faculty to reduce grant costs, these support packages are a direct cost to the units or faculty that recruit these students. As a result, we are significantly more selective when it comes to international students than domestic ones. In other words, we admit some domestic students who are less qualified than some international students we do not admit. We thus miss important opportunities to attract top talent that would enrich the diversity and enhance the productivity of our graduate programs. This constraint on our ability to create a global community of scholars makes the UC less attractive to faculty. We discuss in our recommendations ways to ameliorate this problem and to make UC more competitive.

- To address these concerns, an Administrative/Senate Workgroup on Academic Graduate Student Issues was formed in Fall 2011. This report summarizes the Workgroup’s findings and recommendations. The remainder of the report is organized into sections that focus on the following topics:
  - Trends in the enrollment of academic doctoral students at UC
  - Graduate student support and UC’s competitiveness
  - The impact of rising tuition on graduate student stipends, employment opportunities, and debt
The Workgroup acknowledged that, while several improvements in graduate student support can be achieved by using current resources in more strategic ways, other improvements would require additional University resources. The latter will be difficult or impossible in the current budgetary environment, in which many priority needs are currently going unmet. However, the Regents and Administration periodically compile a list of urgent priorities to support calls for additional funding. The Workgroup felt it was important to include recommendations for enhanced graduate student funding on that list.

**Academic Doctoral Student Enrollment**

As shown in Display 1, UC’s doctoral student population has grown less slowly in recent years compared to growth in the undergraduate student body and thus has declined as a percentage of UC’s total enrollment. Academic doctoral student enrollment has grown by about 2 percent per year since 1999, slightly below the 3 percent annual growth rate for undergraduate students. Doctoral enrollment as a percent of total enrollment and doctoral degrees as a percent of total degrees awarded (Display 2) have declined slightly over the past five years, despite rising applications for admission.

Display 1

![Academic Doctoral Enrollment, 1999-2011](image)

SOURCE: UCOP Corporate Personnel System, Corporate Student System

While comparable enrollment figures are not available for comparison institutions, data are available for degrees awarded. UC’s doctoral production as a percent of total degree production is slightly higher than at other AAU public institutions and lower than AAU privates, as shown in Display 2.
Graduate students fuel UC’s remarkable research engine. Faculty have long understood the critical role of graduate students in pushing the boundaries of discovery and innovation, and are attracted to research institutions with the best and brightest graduate students. International integration is a core element of effective research and education in the 21st century. This sentiment is strongly echoed across the national graduate education community as it recognizes the importance of enrolling international students to ensure the best educational experience for all students. Many countries tend to send or encourage only their best and brightest to do their graduate study abroad. Thus UC must compete with rival institutions throughout the nation to attract these high-quality, highly-recruited students. Our current practice of denying admission to international students who are better qualified than a subset of admitted domestic students is one of the factors that directly impacts our top-tier status.

The quality of the graduate programs in US graduate schools has enjoyed a remarkable pre-eminence for many decades. US graduate schools and their research facilities have been consistently ranked among the best in the world (e.g., the Times of London Rankings and the Shanghai Jiao Tong University Rankings), and from 1997 to 2009 over half of the Nobel Prize winners in chemistry, physics, medicine, and economics had received their graduate degrees in the US. The UCs, particularly as the top public institutions, have contributed significantly to the pre-eminence of graduate programs in American universities (from The Path Forward - The Future of Graduate Education in the United States - http://www.fgereport.org/rsc/pdf/CFGE_report.pdf).


Other countries, such as China and India, are investing substantially in improving their graduate education systems and in the undergraduate programs that feed those graduate programs. The growing competition...
points to the need for changes in the competitiveness of U.S., and by implication UC, graduate education so that UC does not lag or decline in the production or quality of graduate degree recipients.

**Academic Doctoral enrollment and importance of international students for the UC brand**

In the face of serious global competition, international students add a critical dimension to the educational experience of domestic students, undergraduate and graduate. Working with international students allows faculty and students to develop a more global perspective and approach to their work that are critical to an increasingly global society. They also learn more about diverse cultures, as well as perceptions of their own backgrounds and identity, which can serve to enhance their capacity to operate more effectively and lead within a global society. International scholars broaden the research perspective and contribute to the intellectual, social, cultural and global diversity of a campus.

International students completing Ph.D.s at UC frequently seek to remain in the U.S. A recent report shows that the percentage of international students remaining in the US five years after completing doctorates has increased significantly between 1995 and 2005 for Asian students; in 2005, 92% of Chinese and 85% of Indians were in the US, five years after completing the doctorate (from The Path Forward - The Future of Graduate Education in the United States - [http://www.fgereport.org/rsc/pdf/CFGE_report.pdf](http://www.fgereport.org/rsc/pdf/CFGE_report.pdf)). The best international Ph.D.s find U.S. jobs that result in permanent residence. In other words, the enrollment of international Ph.D. students serves the U.S. national interest by attracting and selecting highly skilled immigrants. Those students who return to their home countries retain strong links to the U.S. and to the University of California. For example, UC graduates who take up faculty positions in their home countries steer their best undergraduates to graduate programs at UC, and in doing so enhance the UC brand name and its globalization.

As a percentage of UC academic doctoral students, international enrollment has declined in recent years, as shown in Display 3, and represents only about 25% of our academic doctoral student population. New international students declined significantly at UC (and nationwide) in the wake of 9/11. Although new international enrollment has recovered to pre-9/11 levels, total international enrollment as a percentage of UC doctoral students remains low by historical standards, and is well below average for other AAU Public and Private institutions.

Display 3

![Percent of Academic Doctoral Students Who are International UC 1999-2011 and AAU Publics and Privates (2005 only*)](source: UCOP Corporate Data System)

*2005 AAU Public and Private Institution data obtained from the National Research Council
For UC, enrolling international students is especially challenging because their tuition is higher than that of in-state students. Moreover, unlike domestic nonresident students, international students cannot convert to resident status at UC (although they are exempt from Nonresident Supplemental Tuition for up to three years once they advance to candidacy; see “Tuition and Fee Levels at UC and Other Institutions,” below). Depending on campus funding practices and priorities, covering those higher charges creates a burden for departments, faculty research grants, and other fund sources.

The low international student enrollment as a percent of all UC academic doctoral students is particularly troublesome because, in many disciplines, these students are often considered to be among the most highly talented students recruited by UC. Indeed, as noted above, departments frequently are significantly more selective among international applicants than among domestic applicants – due, in part, to the substantially higher resources required to support an international student compared to a domestic student.

The net result is that UC Ph.D. programs enroll a significantly smaller percentage of international students than do our public or private competitors. In the UC system, International Ph.D. students represented 24.4% of all Ph.D. students in the fall of 2005. This ranged from a low of 5.1% at UCSF to a high of 37.0% at UC Riverside. By contrast, the percentage of International Ph.D. students averaged 38.4% at the AAU public universities and 35.9% at the AAU private universities. At the four public institutions in the Comparison 8 institutions used to benchmark faculty salaries, the percentages were 48.9% (SUNY Buffalo), 47.8% (Illinois Urbana-Champaign), 38.0% (Michigan), and 26.0% (Virginia). At the four private Comparison 8 institutions, the percentages were 28.2% (Harvard), 37.8% (MIT), 30.1% (Yale) and 37.2% (Stanford). UC would need to increase the number of international Ph.D. students by roughly 50% to achieve a mix comparable to the Comparison 8 institutions or to all AAU institutions. Put another way, it appears that UC loses roughly one-third of the international students we could attract if we had the same overall success rate as the Comparison 8 or the AAU institutions.

Another benchmark is UC’s own hiring of Assistant Professors. In each of the five years between 2006-07 and 2010-11, between 36.73% and 38.61% of Assistant Professors hired were not U.S. citizens at the time of hire.1 International scholars are a significantly smaller proportion of UC Ph.D. students than of newly hired UC Assistant Professors.

**Graduate Student Support and UC’s Competitiveness**

As shown in Display 4, multiple surveys conducted since 2004 indicate that the net stipends (financial support in excess of tuition and fees, to be used for living expenses) offered by UC to students admitted to its doctoral programs are lower, on average, than those offered by students’ top-choice alternative institution.

---

1 Data supplied by UCOP Academic Personnel.
Much of the variation between campuses shown in Display 4 is attributable to the wide range of competitor offerings more than it is to disparity in net stipend between the UC campuses. All of the UC campuses average between 15,000 and 20,000 in net stipend, except for Berkeley (21,000), SF (27,000), and UCLA (14,000). Campus competitors’ stipends have greater variation, with Riverside’s competitors being the lowest at 13,700 and SF’s competitors having the highest at over $28,000. However, the large difference in stipend for UCLA is attributed to it having the lowest stipend in the system.

UC’s competitive gap varies considerably by discipline and campus, but is especially large and getting worse for international students, as shown in Display 5. Between 2007 and 2010, despite the fact that NRST was unchanged during this period; UC net stipends remained the same for international students, while competitor offers increased, resulting in a widening of the gap.

UC was somewhat ahead of the competition for under-represented minority students in 2004 and 2007, but fell behind in 2010. This may have resulted from tuition increases, because only 50% of the additional tuition revenue was returned to aid. UC’s competitive disadvantage for these populations makes it particularly difficult for UC to enroll a highly talented, diverse student body.
The figures shown above do not take into account differences in the cost of living at UC campuses compared to other institution. Those differences tend to make a bad situation worse: after taking into account differences in local cost of living, the overall competitive gap grows from $2,697 to $4,978 based on the 2010 survey results.

The survey results also indicate that differences in financial support packages, among several other factors, influence students’ enrollment decisions. As shown in Display 6, the likelihood that a student enrolled at UC varied with the value of UC’s offer of support relative to that of competing institutions. Also, students who ranked financial support considerations particularly important were less likely than other students to enroll at UC.

Display 6

SOURCE: UCOP Graduate Student Survey, 2010
Note that among financial considerations facing prospective students, a competitive net stipend (financial support in excess of tuition and fees, to be used for living expenses) appears to be more important than a low tuition “sticker price”. As shown in Display 7, below, the institutions which were most successful in competing against the UC for the same student tended to be private institutions with higher tuition levels, so tuition itself is not nearly so important as net stipend to students when choosing a graduate program. These institutions allocated sufficient resources from a combination of internal and external sources (e.g., endowment earnings and research grants) to provide a competitive net stipend on top of their higher tuition; the resulting net stipend is often higher than that offered by the student’s top-choice UC campus. The typical private competitor discounts the tuition that is charged to research grants. Of course, reputation, quality of faculty and other academic considerations are also important in the applicant’s decision.

Display 7

<table>
<thead>
<tr>
<th>Competitors’ Tuition Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>*<em>Top Competitor Public Institutions</em></td>
</tr>
<tr>
<td>University of Texas at Austin</td>
</tr>
<tr>
<td>University of Illinois at Urbana-Champaign</td>
</tr>
<tr>
<td>University of Wisconsin-Madison</td>
</tr>
<tr>
<td>Ohio State University, Main Campus</td>
</tr>
<tr>
<td>University of Washington - Seattle</td>
</tr>
<tr>
<td>University of Minnesota - Twin Cities</td>
</tr>
<tr>
<td>UNIVERSITY OF CALIFORNIA AVERAGE</td>
</tr>
<tr>
<td>University of Michigan at Ann Arbor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top Competitor Private Institutions*</th>
<th>Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Pennsylvania</td>
<td>$30,060</td>
</tr>
<tr>
<td>New York University</td>
<td>$34,078</td>
</tr>
<tr>
<td>Yale University</td>
<td>$34,500</td>
</tr>
<tr>
<td>Columbia University</td>
<td>$37,556</td>
</tr>
<tr>
<td>California Institute of Technology</td>
<td>$37,563</td>
</tr>
<tr>
<td>Princeton University</td>
<td>$38,620</td>
</tr>
<tr>
<td>Harvard University</td>
<td>$39,324</td>
</tr>
<tr>
<td>Stanford University</td>
<td>$40,050</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>$40,460</td>
</tr>
<tr>
<td>Duke University</td>
<td>$40,720</td>
</tr>
</tbody>
</table>
*Top competitor institutions were determined by the 2010 Graduate Student Survey as the schools most frequently chosen over UC to attend.

As shown in Display 8 below, UC’s yield among students admitted to its academic doctoral programs (i.e., the percentage of admitted students who decide to enroll at UC) remains virtually unchanged over time, and did not change even with tuition increases. Systematically collected information or quantitative data are not available to assess trends in the quality of students enrolling in UC academic doctoral programs over time, however. As an example, we do not know if UC’s stable yield masks any trends in acceptances from the top, middle or bottom of the admitted pool of students. Thus, the data are not sufficient to quantify any potential impact of UC’s observed lag in net stipends on the quality of UC academic doctoral students. Interpreting this figure is complicated further by the decline in the number of students admitted in recent years.

Display 8

Each bar for a particular campus represents a particular year starting in 2001
The Impact of Tuition Increases on Graduate Academic Doctoral Students

Despite rising tuition costs, the per capita net stipend has increased for UC academic doctoral students who are California residents and domestic nonresidents, over time and across disciplines. It has, however, decreased slightly for international students. See Display 9.

Display 9

While rising tuition has not resulted in any significant erosion in graduate student net stipends, it has increased the cost of supporting academic doctoral students as teaching assistants and research assistants. Display 10A shows the percentage of all academic Ph.D. students who had an appointment as a Graduate Student Researcher or Teaching Assistant at some point during the academic year; the percentages changed little over time. Display 10B shows total fee remission dollars as a percent of total fees, which is a proxy for estimating the extent to which teaching assistants and graduate student researchers had appointments that qualified for tuition/fee remissions. Display 10B shows there is little change over the years in the percent of students receiving fee remissions.
Although the number of positions for graduate student researchers has remained virtually flat in recent years, the number of positions for postdoctoral scholars has increased during the same period; see Display 11. The shift in the mix toward postdoctoral scholars is what an economist would expect as a result of the increase in the relative cost of supporting a GSR, with rising tuition, which does represent revenue for the campuses. The growth in postdoctoral positions has been greatest in the health sciences, where academic doctoral student enrollment is small relative to the size of funded research. Anecdotal reports from both students and faculty in the health sciences indicate that the lower relative cost of hiring a postdoctoral scholar is a significant factor, although other factors such as level of training and the sole focus of post-doctoral fellows on research could also be contributing. National Institute of Health restrictions on the amount that can be charged to a research grant for a graduate student’s stipend and tuition are another significant factor affecting both UC and its competitors; however, as noted above, non-UC institutions often discount tuition charged to grants, lessening the impact.
Student loans play a less central role for academic graduate students than they do for students in professional degree programs. Students in every discipline do, however, rely on loans to some extent. The amount and extent of doctoral student borrowing varies greatly by discipline. Only about 20 to 25 percent of STEM students find it necessary to borrow to complete their doctorates, while 45 to 50 percent of Social Sciences and Humanities students borrow during the course of their studies. Typical debt levels upon graduation among students who borrow range from $25,000 to $30,000 for STEM students to $45,000 to $50,000 for Social Science and Humanities students. This variation underlines the importance of taking discipline into account in crafting new support policies.

As shown in Display 12, there has been no significant increase in either the amount or frequency of academic doctoral student borrowing since 2006; each of the vertical bars represents a year between 2006 and 2010. The figures suggest that higher tuition costs have largely been offset by increased support from fellowships, teaching assistantships, and GSR appointments during this period. This is consistent with the upward trend in graduate students’ net stipends shown earlier in Display 9.
Nonresident Tuition and Graduate Student Support

As noted above, nonresident students are subject to Nonresident Supplemental Tuition (NRST) in addition to the tuition and fees assessed for all students. NRST for academic graduate students was $15,402 in 2011-12 and has not increased since 2006-07.

Domestic nonresident students typically qualify for California residency after their first year and hence avoid subsequent NRST charges. By University policy, international students are exempt from paying NRST for a period of 3 years after they advance to candidacy on average about 2.5 years after admission, in comparison with domestic students who take 3-3.5 years, but are otherwise subject to NRST throughout their enrollment.

Until international students advance to candidacy, the extra cost associated with NRST creates a funding challenge.

- For students supported by UC fellowships, the cost of covering NRST represents a larger drain on limited fellowship budgets than covering only in-state tuition. The University has periodically set aside additional fellowship funds specifically earmarked for nonresident students in order to partially offset this cost. This has occurred both at the systemwide level and at individual campuses.
- External fellowship programs generally do not provide sufficient funding to cover both tuition and NRST.
- Federal training grants cannot be used to fund international students.
- For students hired as GSRs, to the extent that campuses choose not to discount NRST fees to grants from the tuition revenues they accrue, the need to provide NRST remissions increases the
cost to departments and faculty of employing these academic doctoral students. UC faculty members must weigh the desirable aspects of enrolling international students against their higher departmental or personal grant cost as employees, compared to domestic students or, in some cases, postdoctoral scholars. In addition, the combined amount of NRST remission, in-state tuition remission, and wages that may be charged to certain research grants is limited by federal guidelines, as stated earlier.

The financial disincentive that exists at most UC campuses for hiring international students onto research grants is not inevitable, or even typical. For example,

- No such disincentive exists at most private institutions, where international students are assessed the same tuition charges as other students, and where the amount charged to research grants is generally less than the tuition “sticker price” for all students. This is typically less than what is charged for international students at UC.
- Nearly every public AAU university (except UC) charges the in-state tuition level to research grants for international and resident students alike. These universities either allocate other institutional resources or forego the revenue entirely from the tuition differential for all nonresident students on research grants.
- Some public institutions (including UC San Diego) charge a common, blended tuition rate to research grants for students in similar departments that represents the weighted average resident and nonresident tuition level for all students in those discipline. This practice eliminates the financial disincentive against hiring international students as GSRs while still capturing the same aggregate of nonresident tuition revenue from all research grants in that department. However, it maintains incentives to limit the number of international students admitted to Ph.D. programs.

Some of these practices could be adopted by UC campuses and are explored further in the section on recommendations.

Display 13, below, compares both the tuition sticker price and the amount charged to grants for UC and selected comparison institutions. (Rates are for 2011-12. See Appendix 1 for additional data.)

Display 13

### Charges to Research Grants

<table>
<thead>
<tr>
<th>Institution</th>
<th>Resident Tuition</th>
<th>Nonresident Tuition</th>
<th>Amount Charged to Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Michigan</td>
<td>$18,666</td>
<td>$37,726</td>
<td>$18,666</td>
</tr>
<tr>
<td>Rutgers, The State University of New Jersey</td>
<td>$16,237</td>
<td>$24,925</td>
<td>$16,237/24,925</td>
</tr>
<tr>
<td>University of Virginia</td>
<td>$15,108</td>
<td>$25,104</td>
<td>$15,108</td>
</tr>
<tr>
<td>The Pennsylvania State University</td>
<td>$17,172</td>
<td>$29,656</td>
<td>$14,630</td>
</tr>
<tr>
<td>University of Oregon</td>
<td>$14,220</td>
<td>$20,619</td>
<td>$14,220</td>
</tr>
<tr>
<td>University of Washington</td>
<td>$12,670</td>
<td>$25,540</td>
<td>$12,670</td>
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<tr>
<td>University of Maryland at College Park</td>
<td>$12,600</td>
<td>$27,144</td>
<td>$12,600</td>
</tr>
<tr>
<td>University of Missouri-Columbia</td>
<td>$12,600</td>
<td>$29,140</td>
<td>$12,600</td>
</tr>
<tr>
<td>University</td>
<td>Tuition 2011</td>
<td>Tuition 2012</td>
<td>Graduate 2011</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>University of Florida</td>
<td>$11,950</td>
<td>$29,344</td>
<td>$11,950</td>
</tr>
<tr>
<td>The Ohio State University</td>
<td>$11,400</td>
<td>$28,125</td>
<td>$11,400</td>
</tr>
<tr>
<td>Georgia Institute of Technology</td>
<td>$11,171</td>
<td>$26,606</td>
<td>$11,146</td>
</tr>
<tr>
<td>University of Colorado at Boulder</td>
<td>$10,991</td>
<td>$26,867</td>
<td>$10,991</td>
</tr>
<tr>
<td>The University of Arizona</td>
<td>$10,840</td>
<td>$25,802</td>
<td>$10,840</td>
</tr>
<tr>
<td>Indiana University</td>
<td>$10,523</td>
<td>$30,668</td>
<td>$10,523/30,668</td>
</tr>
<tr>
<td>Purdue University</td>
<td>$9,478</td>
<td>$27,646</td>
<td>$9,478</td>
</tr>
<tr>
<td>The University of Iowa</td>
<td>$8,810</td>
<td>$24,168</td>
<td>$8,810</td>
</tr>
<tr>
<td>The University of North Carolina at Chapel Hill</td>
<td>$8,646</td>
<td>$24,332</td>
<td>$8,646</td>
</tr>
<tr>
<td>Iowa State University</td>
<td>$8,508</td>
<td>$20,224</td>
<td>$8,508</td>
</tr>
<tr>
<td>The University of Wisconsin-Madison</td>
<td>$11,375</td>
<td>$25,133</td>
<td>$8,000</td>
</tr>
<tr>
<td>The University of Kansas</td>
<td>$7,532</td>
<td>$17,618</td>
<td>$7,532</td>
</tr>
<tr>
<td>University of Illinois at Urbana Champaign</td>
<td>$10,908</td>
<td>$24,174</td>
<td>$6,545 to 14,504</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>$6,348</td>
<td>$11,982</td>
<td>$6,348</td>
</tr>
<tr>
<td>Stony Brook University-State University of New York</td>
<td>$11,498</td>
<td>$17,788</td>
<td>$5,084</td>
</tr>
<tr>
<td>Michigan State University</td>
<td>$13,691</td>
<td>$26,855</td>
<td>$13,691</td>
</tr>
<tr>
<td>University at Buffalo, The State University of New York</td>
<td>$10,536</td>
<td>$16,826</td>
<td>not specified</td>
</tr>
<tr>
<td>University of Minnesota, Twin Cities</td>
<td>$14,012</td>
<td>$21,466</td>
<td>$14,012</td>
</tr>
<tr>
<td>University of Texas at Austin</td>
<td>$10,642</td>
<td>$21,164</td>
<td>$10,642/21,164</td>
</tr>
<tr>
<td><strong>Privates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Western Reserve University</td>
<td>$56,750</td>
<td>$56,750</td>
<td>$42,563</td>
</tr>
<tr>
<td>Rice University</td>
<td>$34,900</td>
<td>$34,900</td>
<td>$34,900/13,262</td>
</tr>
<tr>
<td>Stanford University</td>
<td>$40,050</td>
<td>$40,050</td>
<td>$26,032</td>
</tr>
<tr>
<td>California Institute of Technology</td>
<td>$37,563</td>
<td>$37,563</td>
<td>$24,416</td>
</tr>
<tr>
<td>University of Rochester</td>
<td>$43,100</td>
<td>$43,100</td>
<td>$21,550</td>
</tr>
<tr>
<td>Cornell University</td>
<td>$41,600</td>
<td>$41,600</td>
<td>$20,800</td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>$40,460</td>
<td>$40,460</td>
<td>$20,460</td>
</tr>
<tr>
<td>Princeton University</td>
<td>$38,620</td>
<td>$38,620</td>
<td>$19,310</td>
</tr>
</tbody>
</table>
Columbia University  $37,556  $37,556  $18,230
New York University  $34,078  $34,078  $17,379
Yale University  $34,500  $34,500  $17,250
University of Pennsylvania  $30,060  $30,060  $15,030
Vanderbilt University  $40,320  $40,320  $14,112
The University of Chicago  $44,568  $44,568  $11,142
Brown University  $41,328  $41,328  $10,332
The Johns Hopkins University  $42,280  $42,280  $8,456
Duke University  $40,720  $40,720  $5,701
Emory University  $36,050  $36,050  $3,750
Tulane University  $43,494  $43,494  0
Washington University in St. Louis  $40,950  $40,950  0
Harvard University  $39,324  $39,324  not specified

UCs

UC San Diego  $14,381  $29,483  $15,813
UC Santa Barbara  $15,300  $30,402  $15,300/30,402
UC Berkeley  $14,985  $30,087  $14,985/30,087
UC Irvine  $14,944  $30,046  $14,944/30,046
UC Los Angeles  $14,618  $29,720  $14,618/29,720
UC Davis  $15,271  $30,373  $11,453/22,779
UC Santa Cruz  $15,946  $31,048  $15,946/31,048
UC San Francisco  $14,892  $29,994  $14,892/29,994
UC Riverside  $14,554  $29,656  $14,554/29,656
UC Merced  $12,809  $27,911  $12,809/27,911

Note that at UC, the impact of NRST on research grants is partially mitigated by two factors: UC’s policy of allowing domestic students to establish residency after their first year (which is more favorable than at most other public institutions) and UC’s policy of exempting international students from nonresident tuition for up to three years once they advance to candidacy. The latter policy may partly explain why, over time, trends in the percentage of international students with GSR appointments are generally comparable to those of resident students, and have changed little over time. See Display 14, below. Note, however, that our data do not indicate the percentage time or number of quarters of appointment of GSRs, only a count of how many students had a GSR appointment at some point during the year.

2 UC San Diego charges a single blended rate to grants, regardless of whether the GSR is resident or nonresident.
3 UC Davis discounts tuition charges, both resident and nonresident, to grants.
In 2010-11 – the latest year for which figures are available – $70 million in NRST was charged for academic doctoral students. Of this amount, $41 million (58%) was paid from University-funded fellowships and GSR remissions. The remaining $29 million (42%) reflected net NRST revenue from external sources such as external fellowship programs, research grants and out-of-pocket payments by students.

Elimination of NRST would result in a loss of revenue to each campus. Some of the $29 Million that comes from external fund sources would be retained by the grant recipient and used for other research purposes. For example, a grant that previously funded tuition and NRST for one nonresident student might now fund tuition for two students; this has obvious benefits to the grantee and the additional student, and the tuition money still goes to the central campus administration. On the other hand, a grant that previously funded tuition and NRST for one nonresident student might now fund tuition only for that student, plus purchase of research equipment; in that case, the grantee benefits, but the central campus administration loses funding. Thus, it is difficult to predict with any precision the net loss in grant revenue to central campus administrations. None of the $41 million in internal funds would be lost to UC, although it might be redirected to different budgets. Thus, it seems reasonable to estimate that in such a scenario UC would retain $50-60 million and lose $10-20 million.

The internal funds retained could end up being used for different purposes. For example, money currently paid from an endowment for graduate student support for NRST becomes available for general campus purposes, if the funds are unrestricted; if NRST were reduced or eliminated, the internal UC funds could, in principle, be used for graduate student support, including supporting additional graduate students and/or increasing net stipends. However, this in turn might free up unrestricted funds that are currently being used for graduate student support for general campus purposes.
Efforts to Improve Graduate Student Diversity

As stated earlier, UC’s academic doctoral programs compete with universities globally to enroll the very best students in the world. A point of excellence for any top research university is its ability to offer a challenging experience reflective of the diversity of the nation and the world.

The diversity of the US and California population continues to grow. The U.S. Census Bureau estimates that between 2000 and 2015, international migration will account for more than half of the nation’s population growth. This growth will especially impact the Hispanic and Asian populations, which are expected to triple over the next half century (U.S. Census Bureau. U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin: 2000-2050 Washington, DC: Author. Retrieved from http://www.census.gov/population/www/projections/usinterimproj/)

In the recent report, America’s Perfect Storm: Three Forces Changing Our Nation’s Future (Kirsch et al. 2007), a number of emerging sociological and economical will challenge U.S. universities. In particular, demographic shifts will result in a population with less education and lower math and reading skill levels. The population of domestic students available to pursue higher education will be more diverse. More first-generation college students will emerge from this pool, and many are likely to require additional language and skill resources.

Underrepresented minority (URM) students (defined for this purpose as domestic African Americans/blacks, Chicano/Latinos and Native Americans) are highly recruited at top ranked institutions. The proportions of URMs enrolled in UC’s graduate academic degree programs have changed little over the course of the last decade. From 2006-2010 URM doctoral enrollment averaged 10.1% with a notable small yet steady increase in Chicano/Latino enrollment, while American Indian and African American enrollments have remained flat. In particular, African American/black graduate students at UC are represented at proportions lower than those at our comparable competitor institutions. African Americans averaged only 2.5% of UC’s academic doctoral enrollment from 2006-2010. In order for UC to attract, enroll and graduate increasing numbers of URM students it must make consistent, substantive and proactive efforts. That said there are some bright spots with UC performance in the difficult national landscape of producing underrepresented scholars at the upper end of the pipeline. For example, in 2009-10 four UC campuses were included in the top twenty-five AAU producers of URM research doctorate recipients, with UC Berkeley ranked as the top producer and UCLA in the number three spot. With the passage of Proposition 209, the state constitution was amended to prohibit state government institutions from considering race, sex or ethnicity in public education (and other areas). Often it is thought that Proposition 209 prohibits institutions from actively seeking to outreach and recruit underrepresented minority students. Institutions can indeed actively seek to increase cultural diversity; the key is the mechanisms by which the goal is pursued. UC employs a wide range of programs, activities and initiatives designed to cultivate and encourage greater diversity on behalf of graduate education. These efforts are in compliance with Proposition 209.

Appendix 2 contains a summary overview of efforts, activities and initiatives currently being employed at UC in an effort to cultivate greater diversity in the graduate community. These are examples of long-term efforts and new initiatives such as the UC-HBCU Initiative launched in 2011. This is a competitive grants program designed to support UC faculty interested in actively collaborating and working with faculty and students at Historically Black Colleges and Universities. They create summer research opportunities at UC that expose HBCU scholars to the University of California and encourage them to consider attending UC for graduate school. The UC-HBCU Initiative is designed to support any HBCU
student selected, based on faculty review criteria, irrespective of race, ethnicity, national origin, sex or gender identity.

In considering issues of diversity the workgroup does not offer any new findings as there is significant relatively recent UC analysis on this issue that remains current (“Report of the Work Team on Graduate and Professional School Diversity” 2007 http://diversity.universityofcalifornia.edu/documents/07grad-prof_rpt.pdf). The workgroup advises continued awareness of the importance of diversity in the broadest sense, but encourages a particular commitment for UC to improve the representation of URM students in academic doctoral programs. This also requires greater vigilance in improving URM representation at the undergraduate level as UC is its own top feeder for underrepresented students enrolling in graduate programs. Having a diverse pool of academic doctoral students is critical to employing a diverse group of postdoctoral scholars and ultimately for faculty hires. UC is generally not a pacesetter on this issue as it has been for many other aspects of higher education, although the President’s Postdoctoral Fellows Program (PPFP) has had notable success in helping many URM Ph.D.’s enter the ladder rank faculty at our campuses and, usually, earn tenure. For example, in 2003 UC initiated a faculty hiring incentive for UC campuses that hire PPFP fellows appointed since 1996. Since then, 94 former fellows have received UC faculty appointments and 6 are under consideration for 2012. Of the PPFP fellows appointed to UC since 1995, 43/44 eligible have achieved tenure. Of 94 fellows hired since 2003, 95% are still at UC. This program has also received national visibility. Former PPFP fellows are also serving at many top universities around the country.

It is regrettable that, in the current financial climate, funding for the PPFP has been reduced, despite its significant success. The workgroup encourages protecting and enhancing resources to cultivate diversity at UC. During difficult economic times it is important that diversity efforts be considered a critical element of maintaining academic excellence and integral to the University’s success at every level. The workgroup encourages creative and proactive efforts that will allow UC to be an undisputed leader in diversity at all levels. Please see the recommendations in the Recommended Options to be Considered at the System-wide, Campus, and Department Level section.

**Enhancing Career Preparation Opportunities for Academic Doctoral Students**

A recent Biomedical Research Workforce Working Group report released on June 14, 2012 by the NIH stated that although the vast majority of biomedical Ph.D.s are employed, the proportion of Ph. D.s that move into tenure or tenure-track faculty positions has declined from ~34% in 1993 to ~26% today. The report goes on to state that the categories that have seen growth are science related occupations. The variety of professional goals and interests among academic doctoral students, coupled with a challenged world economy and the changing landscape of higher education, dictates, as suggested by the report cited above, that research universities support a broad set of career paths for students beyond the traditional focus on jobs in the academy. Analyses and efforts on behalf of multiple career pathways for Ph.D. recipients is an area of great importance in the academic graduate community. It is becoming a critical element in the reputation and competitiveness of academic programs as departments come under increasing scrutiny by industry, prospective students and the public at large with respect to viable job opportunities and professional readiness of their graduates. UC has varying levels of structured efforts in this regard and, like other research institutions, very limited information about the long-term career paths of its graduates. The workgroup feels strongly that this is an area in need of greater attention and support. Support of this will benefit students and in return greatly benefit the University.

The workgroup encourages greater campus and even systemwide effort and coordination toward raising awareness of multiple career opportunities and efforts to strategically equip students for a wide range of careers. The workgroup encourages UC campus communities to work together, when possible, and learn from successful efforts at other institutions. A useful resource is the recent report from the Council of
Graduate Schools on “Pathways Through Graduate School and Into Careers” (http://pathwaysreport.org/). Appendix 3 is a summary of efforts at each of the ten UC campuses that help academic doctoral students explore and prepare for a wide range of careers. The workgroup is pleased to learn of the current efforts across the system, but suggests that more can be done.

The workgroup refrained from suggesting a systemwide review or requesting that each campus establish a task force to examine this issue as the campuses may be at different stages of progress in this area. However, the workgroup considers it critical that campuses improve UC’s performance in professional workforce development and preparing Ph.D. students for careers outside of academia. The workgroup urges each campus to critically examine the resources, programs and guidance available to educate students and faculty about the range of career options for doctoral recipients across all disciplines and activate mechanisms to prepare students for such opportunities. It also encourages the campuses to study other recommendations made by organizations such as the National Institutes of Health and the Council of Graduate Schools. The NIH’s Biomedical Research Workforce Working Group released a draft report on June 14, 2012 (http://acd.od.nih.gov/bmw_report.pdf). UC’s performance in this area will have a direct impact on the long-term competitiveness of its academic doctoral programs. The workgroup offers specific recommendations for campuses to consider in improving efforts to prepare Ph.D. students for multiple career opportunities. Please see the recommendations in the Recommended Options to be Considered at the System-wide, Campus, and Department Level section.

Recommended Options to be Considered at the System-wide, Campus, and Department Level.

We emphasize that different campuses, and different departments within the same campus, face different competitive situations, so flexibility is needed. Additionally, to the extent that several of these recommendations cause a net loss of revenue to the campuses, the difficult decisions regarding what might be cut in order to provide enhanced support to academic Ph.D. programs might vary on each campus. Thus the following options describe pathways the different campuses may wish to explore.

- **Charge only resident tuition to research grants.**

  Public AAU institutions (other than UC campuses) generally charge resident tuition to research grants, regardless of whether the GSR is a resident or nonresident student. UC could adopt a similar policy – either systemwide or by campus – in order to both reduce total costs charged to research grants and to eliminate the current economic disadvantage associated with hiring nonresident students as GSRs.

  In 2010-11 (the last year for which data are available), an estimated $13.9 million in NRST revenue was charged to research grants. Of this amount, $4.1 million was charged to UC-funded research grants; the remaining $9.8 million was charged to external grants.

  **Considerations:** This would result in a loss of net external revenue to campuses. However, given that nearly all other AAU public institutions charge only resident tuition to grants, this should be a very high priority, along with other priorities such as PEB, elimination of faculty salary inequities within each campus, making faculty and staff salaries competitive, hiring new faculty, etc. for the Regents in the allocation of any new revenue in the future.

- **Actively manage graduate student enrollment by program, linking enrollment to the program’s demonstrated ability to provide competitive support.**

  Certain UC campuses including Berkeley currently require departments to demonstrate that they are providing adequate levels of support to their enrolled graduate students through fellowships, grants, assistantships and other sources. This effectively requires departments to maintain or improve the competitiveness of the support that they provide, if necessary by reducing the
number of students admitted. It also cultivates an environment of department responsibility for supporting admitted students, which may influence recruitment/yield success, completion rates, time to degree, and student indebtedness. Some departments at Berkeley have found that increasing net stipend offers significantly increases the acceptance rate among the very top applicants.

Considerations: This strategy maintains or improves competitiveness at the expense of enrollment unless new fund sources are identified. However, campuses that wish to actively grow their graduate programs may opt to do so by choosing a stipend that makes them most competitive with their peers, which may vary between UC campuses and by discipline, while also trying to optimize the size of their graduate program.

- **Elevate graduate student support as a high priority for campus fundraising efforts.**
  
  Fundraising can generate new funding to improve competitiveness and/or support enrollment growth objectives.
  
  Considerations: Campuses and disciplines vary widely in their potential and demonstrated success in raising funds for graduate support. Fundraising for graduate education would also compete with fundraising for other campus objectives. Since significant gifts are often the result of sustained efforts, fundraising is unlikely to be a short-term solution.

- **Elevate the need to improve graduate student support to be a very high priority for the Regents.**
  
  The need to enhance graduate student support has been among the Regents’ priorities for many years. Funding constraints have limited – and continue to limit – the extent that systemwide funds can be earmarked for this purpose. As the economy improves, however, and as additional systemwide revenue from the State or other sources becomes available, the Regents should be encouraged to consider the need for enhanced graduate student support to be a very high priority. Doing so would send a strong signal of the importance of graduate education and the need for systemwide action to enhance it.

- **Create a culture and mechanisms to increase support from extramural funding agencies.**
  
  Every UC campus offers workshops and provides basic assistance to students seeking funding from outside foundations (e.g., fellowships). This can result in additional funding for students and help students develop grant-writing skills that will serve them well throughout their career. Several universities – including some UC campuses – take further steps to create a culture that encourages both students and faculty members to maximize the amount of graduate student support obtained from these sources. Examples include requiring students to prepare a grant proposal as a formal part of their training, providing financial incentives to students for applying to significant fellowship programs, and providing financial incentives to both students and faculty members for actually securing outside awards, for example, by providing matching funds to increase the number of students benefiting from research training programs.
  
  Considerations: The availability of outside funding likely varies by discipline.

- **Charge a blended rate of resident/nonresident tuition and fees to research grants.**
  
  The current difference in tuition levels between resident and nonresident students creates an economic incentive for Principal Investigators to hire resident students instead of nonresident students, thus placing talented nonresident students at a disadvantage when seeking GSR appointments. Moreover, the cost of covering nonresident tuition and fees, combined with the cost of providing competitive wages, raises the total compensation of nonresident GSRs to levels that may be considered unreasonable under some interpretations of federal guidelines.
Some public institutions (including UC San Diego) have addressed this problem by charging the same, blended tuition rate to research grants for both resident and nonresident students. The rate is set at the weighted average resident and nonresident tuition charge among all students in a particular program or college. Such an approach is revenue-neutral to the institution because, in the aggregate, the same total amount of tuition is charged to grants. However, it avoids the economic disincentive to favor resident students over nonresident students for any particular grant. The approach also moderates total charges to individual grants since no single grant is expected to cover the full cost of nonresident tuition.

Considerations: Note that although this approach creates a more level playing field between resident and nonresident students in obtaining a GSR appointment, it does not reduce the aggregate tuition cost charged to grants; it just spreads the cost more evenly across grants. As a result, it is revenue-neutral to the institution, but administratively complex. Granting agency approval may be required. This approach maintains the incentive to be more selective in admitting international students, because increasing the number of international students would result in an increase in the blended tuition rate. However, if this approach were combined with the following proposal (return to aid any growth in NRST), it would level the playing field at admission also.

- **Return 100% of any nonresident tuition revenue from growth in nonresident enrollment in the academic doctoral population to graduate student support.**

Reducing the NRST charged to currently enrolled academic doctoral students would result in some net revenue loss to the University. However, one or more campuses could decide to forego (and effectively return to the units) any new revenue from nonresident enrollment growth in Ph. D. students, which would allow units to enroll more nonresident students without incurring any additional cost associated with covering NRST. Put another way, if 100% of the NRST revenue from this growth in nonresident enrollment were directed back to the unit that enrolls them, the unit would be no worse off than if it had enrolled an in-state student instead.

To implement this, the Graduate Division on a campus could, for example, establish a baseline nonresident enrollment for each unit, based on recent experience. The Graduate Division could then commit to provide to the unit one additional nonresident tuition fellowship for each nonresident student above the baseline; the unit would retain the right to determine which nonresident students would actually receive the fellowships, subject to general Graduate Division policies and federal Grants and Contracts rules.

Considerations: While the State provided UC with marginal cost funding for California resident students (including domestic nonresident students once they achieve residency) until 2007-08, and may do so again in the future, it provides no funding for international students. Consequently, to the extent that the UC system “swaps out” an in-state student for an international student, it would reduce the number of unfunded in-state students that UC reports to the Legislature. If the state were to substantially restore UC funding, including providing marginal cost funding for the currently unfunded resident undergraduates, this would potentially reduce the growth of state funding. The effect on the specific campus funding would be determined under the Funding Streams and Rebenching processes and would depend on the actual implementation of the Rebenching process.

- **Eliminate nonresident tuition for academic doctoral students after their first year.**

This could be done in either of two ways: through a Regental decision applying uniformly across UC campuses; or as a campus option, in which a campus could decide to direct nonresident tuition revenue to graduate student aid, thus providing fellowships offsetting the nonresident
tuition. It could be partially implemented by either eliminating nonresident tuition after the second year, or by reducing rather than eliminating nonresident tuition.

As noted above, the workgroup agreed that nonresident tuition impedes the recruitment of international students, and that this has detrimental effects on the quality of UC Ph.D. programs. If the NRST were reduced or eliminated, it would represent a revenue loss to the campuses. However, in light of this revenue loss, there were divergent views on the wisdom of eliminating nonresident tuition after the first year:

- Some members of the workgroup felt strongly that the benefits for UC’s recruitment of international students justified the revenue loss that would result from eliminating nonresident tuition after the first year. They noted that much of the revenue generated by NRST comes from internal UC sources, and would not be lost to UC. Of the amount coming from external sources, the bulk comes from research grants and from the students themselves. They argued that competitive considerations require UC to limit the grant charges to resident tuition, as noted in the previous recommendation. Charges to the students themselves directly impair our competitiveness for those students, and this justified foregoing the $7.4 million obtained from the students. Additionally, there would be a revenue loss of $4.2 million from external fellowships and other external forms of support. Thus, these members felt that elimination of nonresident tuition after the first year, should be a priority for the Regents.

- Other members felt strongly that any Regental action resulting in the loss of this revenue would be a great hardship for the campuses under the current fiscal constraints. Instead, they favored encouraging campuses to develop alternatives to addressing the cost pressures associated with nonresident tuition through fundraising, selective rebates, and alternative funding sources that can ameliorate the burden of paying nonresident tuition.

**Considerations:** In 2010-11 (the last year for which data are available), an estimated $34.5 million in NRST revenue was attributable to nonresident students enrolled beyond their first year. Of this amount, an estimated $16 million was covered by UC fund sources: $13.3 million by UC fellowships and $2.7 million by UC-funded research grants. The remaining $18.5 million was covered by a variety of external fund sources, including external fellowships ($2.1 million), remissions charged to external grants ($7.0 million), other forms of support ($2.1 million) such as employer sponsors, and students’ earnings or out-of-pocket expenditures ($7.4 million).

**Recommendations related to diversity**

- Despite budget challenges the workgroup encourages UC to maintain and enhance its commitment and resources to improve the representation of URM students in academic doctoral programs. This requires greater vigilance in improving URM representation at the undergraduate level as UC is its own top feeder for underrepresented students enrolling in graduate programs.

- The workgroup also advises that having a diverse pool of academic doctoral students is critical to employing a diverse group of postdoctoral scholars and ultimately necessary in hiring faculty more reflective of the cultural diversity of our state and nation.

**Recommendations related to Ph.D. career pathways**

- Enhance support for graduate career services
  - Provide career services resources to students at various stages of their academic program. Services should include training students on how to search and effectively compete for internship positions and career opportunities across a wide spectrum of potential careers
  - Implement or support graduate internship efforts
• Offer department-specific workshops on diverse career paths (or groups of related departments could hold workshops collaboratively.)

• Ensure there is a campus infrastructure that not only allows but supports students enrolling in courses outside of their departments. Students should have access to classes and other opportunities for training that may fall outside their department (such as introductory level business and law classes)

• Survey companies and organizations that frequently hire Ph.D. recipients to determine the skills these places typically look for and make an effort to ensure graduate students are trained appropriately to compete for positions.

• Provide faculty with opportunities to learn and acquire tools to assist students in exploring a variety of career options. Develop lists of resources for faculty that they can share with all students, but especially those who show an interest in non-academic career options.
Report of the Administrative/Senate Workgroup on Academic Graduate Student Issues 2012

List of Appendices

1. Graduate Tuition Remission Survey 2011 for Workgroup Rev 06 2012
2. UC Diversity Efforts
3. UC Efforts on Multiple Career Pathways for Ph.D. Students
Appendix 1: Graduate Tuition Remission Survey 2011 for Workgroup Rev 06 2012

Background:
At the July 2011 Regents’ meeting particular questions and concerns were raised regarding how graduate academic doctoral students are funded. Emphasis was placed on understanding the potential impact of tuition increases on the adequacy of the University’s graduate student support, faculty research grants, and students whose support may not increase to fully offset the higher tuition rates.

Objective:
The purpose of this information collection was to replicate an effort from March 2004 where an Association of American Universities Data Exchange (AAUDE) inquiry asked: ‘If graduate research assistants are included in federal contract/grant proposals, what amount of tuition is charged to the grant? How do you determine the amount of tuition & fees to include in the contract/grant proposal? If an amount less than tuition is charged to the grant, who pays for the remaining amount?’
In 2011 survey, an additional question was added for the public institution inquiry: ‘Is the full cost of out-of-state tuition requested, or do you use a standard formula (for example, weighted averages to account for in-state, out-of-state, etc)? If the full cost of out-of-state tuition is not charged to the grant, who pays for it?’

Association of American Universities:
Of the sixty-one Association of American Universities (AAU) institutions, fifty-seven institutions were web searched and/or contacted, via a listing from the Institution’s Office of Sponsor Projects or Research Administration website or from the AAU directory contact list. The six University of California campuses along with the two Canadian institutions were excluded from this inquiry.
Note: There are sixty-one AAU institutions as of spring 2011. Recently, Georgia Institute of Technology was added as a member to the association and both Syracuse University and Nebraska University were removed.

Inquiry Summary:
AAU publics
Of the 27 public institutions surveyed,
2 charge a flat amount to the grant that’s less than resident tuition
2 charge a rate between resident and non-resident tuition
3 charge non-resident tuition where applicable
20 charge resident tuition

AAU privates
Of the 21 private AAU institutions surveyed, Columbia charges a flat rate. Case Western Reserve charges 75% of tuition to research grants; both Stanford and Cal Tech charge 65%, while 8 private institutions charge within a range of 50% to 35% of tuition to research grants. Three charge 20-25%. Duke charges 14%. Rice charges a varied amount. Emory charges the enrollment fee only, and two institutions do charge not tuition. Harvard did not provide a percentage; they did confirm that tuition may be added to the award but only in proportion to their effort.
UC Campuses
Of the ten UC campuses, eight campuses charge full resident and nonresident tuition. Davis charges 75% of both resident and nonresident tuition amounts and San Diego charges a blended rate, higher than resident tuition but lower than non-resident tuition amount. All UC tuition rates include student health insurance.
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<td><strong>Georgia Institute of Technology</strong></td>
<td>Costs are based on number of credits taken. Annual Rates for 12 or more credits: <strong>Resident $9,986</strong>, plus $1,185 mandatory fees= <strong>$11,171</strong> Nonresident <strong>$25,421</strong></td>
<td>Currently, our in-state graduate tuition rate is charged to the grant, less $25 per semester, based on the allocation of salary charges to the grant. It is based on the graduate student tuition rate that is proposed each year and approved by the Office of Naval Research. The monthly charge rate is based on the in-state graduate student tuition rate (less $25) per semester, divided by the number of months in the semester. Tuition increases of 5%-8% on the in-state rate are generally built into the multi-year proposals.</td>
<td>All but $25 will be charged to the grant for in-state students. The out-of-state portion of the tuition is waived for non-resident students. All GRAs pay $25 per semester for their tuition.</td>
<td>No</td>
<td>As of now, we use the in-state graduate tuition rate (less $25) exclusively. The out-of-state portion of the tuition is currently waived in its entirety.</td>
<td><a href="http://www.bursar.gatech.edu/student/tuition/Fall2011/Fall11-all_fees.pdf">http://www.bursar.gatech.edu/student/tuition/Fall2011/Fall11-all_fees.pdf</a></td>
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<td><strong>Michigan State University</strong></td>
<td>Per credit- hour basis: Resident <strong>$569</strong>, Nonresident <strong>$1,118</strong> <em>Need annual tuition amounts. Annual tuition: $13,691 for 12 credits resident, $26,855 for 12 credits nonresident</em></td>
<td>Tuition and Fee waivers are part of a “specific identification” (SI) charge applied to accounts on which graduate assistants are employed. The charges are calculated across the University using a formula for estimated cost and divied up on an equal per graduate assistant head basis (i.e., every assistantship gets charged a set undifferentiated fee regardless of employment time or credits enrolled).</td>
<td>The tuition and fee waiver at Michigan State University is up to 9 credits per semester (Fall and Spring, but only 5 credits in Summer) at in-state rates. If a graduate research assistant is employed on a federal contract/grant, the SI fee is charged to that grant. If the assistant is employed on more than one account (whether the same grant with multiple funding sources or different grants) the SI fee is split proportionally. Graduate assistants taking more than the waived amount of credits pay the additional tuition and fees themselves.</td>
<td>No</td>
<td>All graduate assistants at Michigan State University qualify for tuition and fees at the in-state rate and the SI calculation is based on that amount.</td>
<td><a href="http://www.ctlr.msu.edu/costudentaccounts/Tuition_Fees.aspx">http://www.ctlr.msu.edu/costudentaccounts/Tuition_Fees.aspx</a></td>
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<td>Ohio State University</td>
<td>Annual Rates: Resident tuition $11,400, Nonresident $28,125</td>
<td>OSU charges actual in state tuition for GRAs. Those who have not passed their admission to candidacy exam enroll for 10 credit hours/quarter. Those post admission enroll for 3 credit hours.</td>
<td>In creating proposal budgets we try to estimate which students will be supported by the award and budget tuition accordingly. Any under-recovery is charged back to the student’s department.</td>
<td>No</td>
<td>The out of state component of fees is waived for all students supported as GRAs. GTAs or those with externally funded fellowships.</td>
<td><a href="http://www.osu.edu/osutoday/stuinfo.php#tuti_fee">http://www.osu.edu/osutoday/stuinfo.php#tuti_fee</a></td>
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<td>Rutgers, The State University of New Jersey</td>
<td>Both resident $14,664 ($16,237 with fees) and non-resident tuition $22,352 ($24,925 with fees); rate based on 2011-12 tuition</td>
<td>Currently, the student’s actual tuition, based on credits enrolled, is fully charged to the grant, even if the student is non-resident, which most are. In practice, this may range from one to 12 credits per term, but probably averages about six. All this is under review here and the hope is that it will change to reduce the cost of students on grants.</td>
<td>Did not indicate.</td>
<td>Did not indicate.</td>
<td></td>
<td><a href="http://studentabc.rutgers.edu/forms/tuition/FY11-12Tuition-NBGraduate.pdf">http://studentabc.rutgers.edu/forms/tuition/FY11-12Tuition-NBGraduate.pdf</a></td>
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<td>Texas A&amp;M University</td>
<td>A graduate student with any kind of assistantship is charged resident tuition. Estimated tuition Resident $6,348, Nonresident $11,982</td>
<td>REVISED RESPONSE, 6/6/2012: (Debbie Guess, Data Analyst, Office of Institutional Studies) A graduate student with any kind of assistantship is charged resident tuition. ORIGINAL RESPONSE: Since tuition remission is still part of the University's policy for all TAMU graduate students paid on qualifying assistantships, faculty are still required to budget tuition and fees remission (compensation) in lieu of or in addition to the salaries budgeted for the graduate student's assistantship on the project. I don't think that the OGS's new allocation methodology for resource support for students affects the requirement for consistency on the tuition and fee remission programs and the need for the faculty to budget full tuition and fee remission for tuition and &quot;all&quot; required fees. Although the tuition and required fee schedules as published as on TAMU's finance website can be used, the PI can use an average rate of $352/semester hour. For a student budgeted at 50% effort we typically budget 24 hours/year (9 hours each fall and spring semester and 6 for the summer). But the proposal administrators can help faculty with this.</td>
<td>Did not indicate.</td>
<td>No</td>
<td>Paying for tuition remission only is a partial tuition and fee remission while paying for tuition and all required fees is full tuition and fee remission. As you may know TEES has made changes and limited the amounts of funding that College of Engineering graduate students can receive in tuition and fee remission based on their interpretation of an NSF audit. No other research entity agrees with the TEES interpretation of A-21 but we are trying to get a ruling from the System as all TAMU graduate students whether working in qualifying graduate assistantships in TEES, AgriLife, or TTI are subject to the rules of the University's established program and if we do not treat all of our graduate assistantships consistently, we are out of compliance. But we hope to have this fixed soon and restore the COE students back to where other graduate student benefits.</td>
<td><a href="https://financialaid.tamu.edu/Cost/CO_A_Grad.aspx">https://financialaid.tamu.edu/Cost/CO_A_Grad.aspx</a></td>
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<td>University of Buffalo, The State University of New York</td>
<td>Blended Tuition Rate; based on discipline see website; Resident $10,536, Out-of-State $16,826</td>
<td>The amount of tuition charged to federal grants is based off of a per credit hour blended tuition rate schedule (weighted average) by School, multiplied by the number of credit hours included in the proposal. The blended rate calculated by the School is the actual tuition per credit hour rate (minus all fees) multiplied by a weighted ratio of in-state/out-of-state students the previous year. The higher the number of out-of-state students, the higher the blended rate will be for that specific school for that year. At proposal time, the current blended rate figured for that year for the applicable school is used for budget submission to the sponsor. When the sponsored research grant is awarded, the blended rate in effect at the time of proposal submission is used. The only accounts that we don’t use the blended rate are training grants. These types of grants are charged the full actual tuition.</td>
<td>We currently use a “dummy” tuition remission account that we established that covers the difference between the old blended rate (+/-) if the rate used at the time of the proposal is different than the actual amount of tuition. This process, however, is currently under review, being that the rates used at proposal, which may be several years old, have been quite a bit lower than the actual tuition, as unanticipated increases in actual tuition have occurred in recent years. This has resulted in a significant amount of positive entries to the “dummy” account, which then has to be covered by the institution.</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://studentaccounts.buffalo.edu/tuition/fall.php">http://studentaccounts.buffalo.edu/tuition/fall.php</a></td>
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<td>University of Arizona</td>
<td>Resident tuition $10,840, Nonresident $25,802</td>
<td>For GRAs who are at least .5 FTE, full resident tuition and fringe benefits are charged to the grant.</td>
<td>For GRAs at less than .5 FTE, the grant will pay a proportionate share of their tuition—the student is responsible for the rest.</td>
<td>No</td>
<td>All GRAs are considered in-state students for purposes of tuition by Arizona Board of Regents policy—the non-resident portion, then, is simply foregone revenue and is not reported in most of our financial reports.</td>
<td><a href="http://bursar.colorado.edu/tuition-fees/tuition-and-fees-rate-sheets/">http://bursar.colorado.edu/tuition-fees/tuition-and-fees-rate-sheets/</a></td>
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<td>University of Colorado at Boulder</td>
<td>Resident Rate plus insurance - $4777, resident tuition (up to) $4689 plus insurance $88</td>
<td>The budget usually consists of the maximum of resident portion of tuition for a student plus a fringe benefit rate of 8% for insurance. What is charged to the grant is the actual amount of the RESIDENT portion of the student’s tuition and a fringe benefit rate.</td>
<td>Did not indicate.</td>
<td>No</td>
<td>Since all students on RA’s are covered under the tuition remission policy, whomever is paying for the student’s salary (in this case the grant) will only be charged the resident portion.</td>
<td><a href="http://bursar.colorado.edu/tuition-fees/tuition-and-fees-rate-sheets/">http://bursar.colorado.edu/tuition-fees/tuition-and-fees-rate-sheets/</a></td>
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<td>University of Florida</td>
<td>Resident Graduate Rate: $11,950; did not list Nonresident rate</td>
<td>The amount charged to the grant varies according to the expectation on how much of the student’s time will be spent on the activities funded by the grant. The PI determines that amount of time (and associated costs) when preparing the grant proposal.</td>
<td>Did not indicate.</td>
<td>No</td>
<td>There is no standard rule, but often the University will pay for instate tuition and the project will pay for the out of state portion.</td>
<td><a href="http://www.sfa.ufl.edu/basics/cost-of-attendance/">http://www.sfa.ufl.edu/basics/cost-of-attendance/</a></td>
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<td>University of Illinois at Urbana Champaign</td>
<td>Blended Tuition Rate 60%/$6545 to $14,504 (Tuition for 2011-12 - In-State $10,908, Out-of-State $24,174)</td>
<td>The FY12 rate is 60%. We use a formula to calculate the rate, as follows: Value of tuition for graduate students with tuition waivers = Salaries paid to the students who receive tuition waivers / Tuition Remission Rate (TRR). For the value of tuition, our government costing section calculates three rates using a combination of in and out of state scenarios and then our campus makes a decision on the rate to use in our request to the federal government. This tuition remission charge is not in the MTDC base, and it is charged strictly in proportion to the salary of graduate assistants with waivers.</td>
<td>Did not indicate.</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://registerar.illinois.edu/financial/grad_base.html">http://registerar.illinois.edu/financial/grad_base.html</a></td>
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<td>University of Iowa</td>
<td>Full-Time Rates: Resident tuition and fees $4405 per semester, Nonresident $12,084</td>
<td>The same amount as covered in the Graduate Assistant Union agreement, which this year will be 100% of tuition costs for those with 25% appointment or greater.</td>
<td>Did not indicate.</td>
<td>No</td>
<td>Our non-resident graduate students with research assistant appointments of 25% pay the in-state tuition rate, so in-state rate is requested only.</td>
<td><a href="http://www.registrar.uiowa.edu/LinkClick.aspx?fileticket=%2fXgw5LMbt%2bM%3d&amp;tabid=95">http://www.registrar.uiowa.edu/LinkClick.aspx?fileticket=%2fXgw5LMbt%2bM%3d&amp;tabid=95</a></td>
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<td>University of Kansas</td>
<td>Annual Tuition Resident $7,532, Nonresident $17,618</td>
<td>The full cost of tuition for graduate research assistants must be included in all proposals, renewals, and contracts as part of the proposal budget when permissible by the granting agency or funding source. from the Graduate Research Assistant (GRA) Tuition Assistance Policy, <a href="https://documents.ku.edu/policies/Graduate_Studies/graduateassistance.htm">https://documents.ku.edu/policies/Graduate_Studies/graduateassistance.htm</a></td>
<td>The amount is commonly paid from the Graduate Research Assistant Tuition Assistance Pool when not allowed by the grant. For specific amounts, please see this website: <a href="http://www.rgs.ku.edu/proposals/tuition_fees.shtml">http://www.rgs.ku.edu/proposals/tuition_fees.shtml</a></td>
<td>No</td>
<td>GRAs at KU who hold a .40 FTE or higher position qualify for in-state tuition rates.</td>
<td><a href="http://affordability.ku.edu/cs/costs.shtml">http://affordability.ku.edu/cs/costs.shtml</a></td>
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<td>University of Maryland at College Park</td>
<td>Full-Time Rates: $6,300, Nonresident $13,572 per term</td>
<td>Graduate Assistants on a full-time appointment (20 hours per week) are eligible for 10 credits of tuition remission in the Fall and Spring semesters and 4 credits in Winter Term. GAs on a half-time appointment (10 hours per week) are eligible for 5 credits of tuition remission in the Fall and Spring semesters and 2 credits in Winter Term. GAs on a full-time 12-month appointment are also eligible for up to 8 credits of tuition remission during Summer; and GAs on a half-time 12-month appointment are eligible for up to 4 credits during Summer.</td>
<td>Tuition remission is credited at the prevailing standard in-state credit hour rate at the time the class is taken. Some programs, such as the MBA, have higher credit hour rates or flat fee pricing. The tuition remission benefit does not cover the difference, which remains the responsibility of the GA.</td>
<td>No</td>
<td>All Graduate Assistants on a full-time or half-time appointment are billed at the in-state rate for credits taken during their appointment, including any credits taken over the tuition remission allowance. Official residency classification, however, does not change. Consequently, at any time when a graduate student is no longer supported by an assistantship—including summer months if the student is on a 9.5-month assistantship—he or she will be billed according to the official residency status that was assigned upon admission. Thus, a student may pay in-state rates during the academic year but out-of-state rates during the summer if the student is classified as out-of-state. Graduate students are urged to be aware of their official residency classification status and to address any problems immediately.</td>
<td><a href="http://www.umd.edu/bursar/t_grd112.html">http://www.umd.edu/bursar/t_grd112.html</a></td>
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<td>University of Michigan</td>
<td>Resident tuition &lt;br&gt;9,333, &lt;br&gt;Nonresident $18,863 per term</td>
<td>Graduate student research assistants are budgeted at standard average rates that are published annually. The website address is listed below. This takes the guesswork out of what to budget and to charge. Our office calculates this average each year based on tuition assessed and the number of average credit hours taken. Resident tuition is charged to the grant.</td>
<td>The unit is responsible for paying the tuition differential and any deviation from the average from other sources. Most choose to use their general funds for this purpose.</td>
<td>No</td>
<td>We only assess resident tuition and the units pick up the remaining costs. This helps the researchers in building their initial budgets and makes it possible for them to support students more easily on grants.</td>
<td><a href="http://ro.umich.edu/tuition/full.php#Rack_LSA">http://ro.umich.edu/tuition/full.php#Rack_LSA</a></td>
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<td>University of Minnesota, Twin Cities</td>
<td>Full-time Rate - &lt;br&gt;Resident $7,006, &lt;br&gt;Nonresident $10,733 per semester</td>
<td>Tuition is not charged to the grant. We have negotiated a fringe benefit (for tuition) that can be charged to federal contract/grant proposals.</td>
<td>This tuition amount is backed out of Facilities and Administration Costs (F&amp;A). The fringe benefit cost included in the contract/grant proposal is based on an approved hourly rate for the number of hours worked. This hourly rate is adjusted each year. The department is responsible for monitoring expenses compared to the approved budget.</td>
<td>No</td>
<td>A waiver is applied to out of state students to bring their tuition down to the resident rate. The waiver is considered lost tuition.</td>
<td><a href="http://onestop.umn.edu/finances/costs_and_tuition/graduate_school_tuition.html">http://onestop.umn.edu/finances/costs_and_tuition/graduate_school_tuition.html</a></td>
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<td>University of Wisconsin-Madison</td>
<td>Blended - flat charge of $8000. &lt;br&gt;(Costs are based on number of credits taken.) &lt;br&gt;For 8+ credits: &lt;br&gt;Resident $5,687.56 &lt;br&gt;Nonresident $12,566.68 &lt;br&gt;Minnesota $7,545.48</td>
<td>There is a flat charge of $8000 annually per graduate research assistant who holds at least a 0.33 FTE appointment. Charged $4000 per fall and spring semester. Pro-rated if a student is split among multiple grants. Same for resident and non-resident students.</td>
<td>Given that tuition is more than $8000, the remainder of the student's tuition bill is paid out of other university funds.</td>
<td>No</td>
<td>The student does not pay the tuition - the student gets a full tuition waiver whether they are a resident or non-resident. (Grad students without at least a 0.33 FTE RA or TA appointment do not get tuition waivers.)</td>
<td><a href="http://registration.wisc.edu/tuition_%26_fees.htm">http://registration.wisc.edu/tuition_%26_fees.htm</a></td>
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<td>Indiana University</td>
<td>Tuition varies by school. Graduate School--Resident: $309.50 / credit hour ($5,261.50 for 17 credit hours) Nonresident: $902.00 / credit hour ($15,334 for 17 credit hours)</td>
<td>According to website: &quot;Tuition and fees paid for graduate students as research assistants on sponsored projects are considered a fringe benefit and should be called a “fee remission” and be paid with the 5400 object code. <strong>Full fee remissions are mandatory (less the amount of the dedicated fee paid by the student) for a maximum of 30 hours per academic year if the appointment is 50% or greater.</strong> Fee remissions may be charged to federal and federal pass-through sponsored programs only if the graduate student is working 50% FTE or more; for other sources of funding, schools may elect to award fee remissions (less the dedicated fee paid by the student) to graduate student employees with appointments less than 50% FTE.&quot; <a href="http://researchadmin.iu.edu/Policies/Payments_and_Fee_Remissions_to_Graduate_Students_on_Sponsored_Programs_2011.10.03.pdf">http://researchadmin.iu.edu/Policies/Payments_and_Fee_Remissions_to_Graduate_Students_on_Sponsored_Programs_2011.10.03.pdf</a></td>
<td>Full fee remissions are mandatory (less the amount of the dedicated fee paid by the student) for a maximum of 30 hours per academic year if the appointment is 50% or greater. Fee remissions may be charged to federal and federal pass-through sponsored programs only if the graduate student is working 50% FTE or more; for other sources of funding, schools may elect to award fee remissions (less the dedicated fee paid by the student) to graduate student employees with appointments less than 50% FTE.&quot; <a href="http://researchadmin.iu.edu/Policies/Payments_and_Fee_Remissions_to_Graduate_Students_on_Sponsored_Programs_2011.10.03.pdf">http://researchadmin.iu.edu/Policies/Payments_and_Fee_Remissions_to_Graduate_Students_on_Sponsored_Programs_2011.10.03.pdf</a></td>
<td>Does not indicate</td>
<td><a href="http://bursar.indiana.edu/fee_schedule.php">http://bursar.indiana.edu/fee_schedule.php</a></td>
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<td>Iowa State University</td>
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<td>Does not indicate</td>
<td>No</td>
<td>All graduate assistants working for Iowa State also qualify for in-state tuition. Doctoral students receive full tuition remission while master’s students receive ½ tuition remission. Thus, master’s students pay $1992.76 per semester in tuition and fees.</td>
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<td>Pennsylvania State University</td>
<td>The amount charged to grants is the same ($7,315/semester) regardless of the student’s program or residency status. Tuition varies by location and major. Full tuition at University Park location, non-business majors: Resident: $17,172; Nonresident: $29,656</td>
<td>As you can see, there are different graduate student tuition rates for different programs. There also are different rates for PA residents and non-residents. But all that is irrelevant when charging tuition to research grants. As you can see from the tuition schedule, the amount charged to grants is the same ($7,315/semester) regardless of the student’s program or residency status. My understanding is that this is to ensure that hiring decisions don’t depend on residency status. I have no insight into the occult methods used to calculate the graduate assistantship tuition rate, but I know that the entire tuition schedule is approved each summer by the PSU Board of Trustees.</td>
<td>We have had some sponsors who were reluctant to pay graduate student tuition, including our own state government. We try to address their concerns by explaining that graduate student tuition is a part of a graduate student’s total compensation package (including the student’s stipend, fringe benefits, and tuition). Since we can’t pay the tuition of some of our graduate research assistants and not pay the tuition of others, we probably would have to replace a graduate student with a faculty member or a postdoctoral scholar if the sponsor was unwilling to pay the tuition. (And as we explain to our sponsors, it generally costs a lot more to have a faculty member or postdoc do the work than it would to have a grad student do the work.) This argument is usually successful at convincing our sponsors to pay graduate student tuition. However, in some cases a college or department might choose to pay the graduate student’s tuition out of its own general funds, especially if it is trying to meet a</td>
<td>No</td>
<td>See D</td>
<td><a href="http://tutiondynamic.psu.edu/rates.aspx?location=up">http://tutiondynamic.psu.edu/rates.aspx?location=up</a></td>
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<td>Purdue University</td>
<td>In-state tuition is charged to the grant. Tuition varies by location and major. Tuition at West Lafayette location, full-time regular students: Resident: $4,739.00 per semester; Nonresident: $13,823.00 per semester</td>
<td>The fee remission is a rate that is calculated annually based upon the remissions granted from the prior year, projections of the number of graduate student staff and an projected estimate of the general service fee. The rate charged each pay period pro-rated to all of the accounts that the salary for that Graduate Student Staff was charged to during that pay period. The rate is not pro-rated based on the number of days that the Grad Student Staff worked in the pay period. If a Grad Student Staff works any one day during the pay period the full monthly rate is charged for that pay period. (Note: all of our Grad Student Staff are paid monthly) Only the general service fee is included in the remissions calculation since our Grad Student Staff are responsible for paying the other fees themselves (i.e. Student Fitness &amp; Wellness Fee, Repair &amp; Rehabilitation Fee, etc...)</td>
<td>Not indicated</td>
<td>No</td>
<td>Purdue University defined a specific tuition category for Grad Student Staff employed as teaching or research assistant and those classified as graduate student administrative and professionals that is regardless of residency status. The tuition remission calculated for that tuition category is based upon the in-state tuition rate. (Therefore, effectively we forego the out of state portion for our Graduate Student Staff)</td>
<td><a href="http://www.purdue.edu/bursar/Feerates/2011-2012/2011-2012_page1.html#WL_FullTime">http://www.purdue.edu/bursar/Feerates/2011-2012/2011-2012_page1.html#WL_FullTime</a></td>
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<td><strong>Stony Brook University-SUNY</strong></td>
<td>Tuition remission for graduate students will be charged at six (6) credits per semester (Fall and Spring only), per RA, at the NYS tuition rate. Two thirds of tuition remission collected will be allocated to and used by the graduate program under which the funded graduate student is enrolled (either to the Chair or Graduate Program Director, depending on where fiscal responsibility for the salary resides). Use of these funds is restricted to graduate program support. One third of the tuition remission revenue will be allocated to and administered by the Graduate School and the use of these funds will be restricted to stipends or salary support for graduate students (e.g. supplements or program expansion through additional lines).</td>
<td>Fees vary by # of credits: Resident $2,542 for 6 credits, $5,749 for 12 credits. Nonresident $4,114 for 6 credits, $8,894 for 12 credits.</td>
<td>Not indicated</td>
<td>No</td>
<td>Not indicated</td>
<td><a href="http://www.stonybrook.edu/research/ogm/gradtuition.shtml">http://www.stonybrook.edu/research/ogm/gradtuition.shtml</a></td>
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<td><strong>University of Missouri-Columbia</strong></td>
<td>In-state tuition is charged to the grant. Tuition per academic year Resident: $12,600, Nonresident: $29,140. If remission of educational fees is not specifically prohibited according to the guidelines of a funding source, it is required that in-state educational fees be included as a fringe benefit in the budgets of all proposals that include graduate student stipends.</td>
<td>If an amount less than tuition is charged to the grant, who pays for the remaining amount?</td>
<td>Not indicated</td>
<td>No</td>
<td>Not indicated</td>
<td><a href="http://financialaid.missouri.edu/cost-of-attendance/graduate.php">http://financialaid.missouri.edu/cost-of-attendance/graduate.php</a></td>
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<td>University of North Carolina at Chapel Hill</td>
<td>Partial tuition waiver based on the percentage of effort the individual graduate student will work on the project. Resident: $8646, Nonresident: $24,332. “Graduate School does have state based funding to provide tuition to qualified out-of-state students (we call this the tuition remission budget, where remission is defined as the dollar amount difference between the in-state and out-of-state rates of tuition). The full tuition cost for out-of-state tuition is......”</td>
<td>“Our tuition remission program is measured by the in-state portion only to ensure a consistent base and application. If funds are available (state appropriations specifically for tuition remission or from sponsored agreements) we can direct-charge the in-state portion for individuals who qualify for remission, to awards where tuition is allowed by the sponsor. That makes the computation fairly easy as the amount is determined by the in-state portion regardless of the particular tuition amount as determined by the school/department for the particular program, discipline, degree sought, etc. Departments are responsible for differences.”</td>
<td>Departments are responsible for differences</td>
<td>Indicates that the full cost of out-of-state tuition is charged to the grant.</td>
<td>If the full cost of out-of-state tuition is not charged to the grant, who pays for it?</td>
<td>According to the website, <a href="http://gradschool.unc.edu/policies/tuitionsupport/">http://gradschool.unc.edu/policies/tuitionsupport/</a> “Eligible out-of-state students may receive both a tuition remission award that reduces their tuition to the in-state rate, as well as an in-state tuition award. These two funding sources, used in combination, provide full tuition support for graduate students serving as University-supported TAs, RAs, or fellow/trainees. Out-of-state students must receive an out-of-state tuition remission to be eligible for an in-state tuition award. This benefit includes tuition only, not student fees. Eligible in-state students may receive an in-state tuition award that provides full tuition support for graduate students serving as University-supported TAs, RAs, or fellow/trainees. This benefit includes tuition only, not student fees.” but it looks like only partial fees may be charged to the grant. It is unclear who pays the difference.</td>
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<td>University of Oregon</td>
<td>Full-time tuition is charged to the grant. Resident: $6,804, Nonresident: $20,916</td>
<td>Grants should budget for full-time tuition, as listed below, for GTF appointments. *The Academic Year (AY) covers three terms-fall/winter/spring. Tuition rates in future years should be budgeted with an estimated increase of 7% annually. Example: Resident graduate tuition in 2002-03 is $2180/term, and in 2003-04 is $2333/term. For grants that provide student support for research training, such as NIH Institutional National Research Service training grants, four (4) terms of tuition and fees should be budgeted each year. Training grants may include both resident and non-resident tuition rates, non-instructional fees of $436/term, and insurance costs, if allowable under the grant.</td>
<td>not applicable</td>
<td>No</td>
<td>Not applicable</td>
<td><a href="http://orsa.uoregon.edu/web/news/Archive/msg00102.html">http://orsa.uoregon.edu/web/news/Archive/msg00102.html</a></td>
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<td>University of Pittsburgh</td>
<td>Arts and Sciences: Resident: $18,774, Nonresident: $30,736</td>
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<td><a href="http://www.upj.pitt.edu/366/">http://www.upj.pitt.edu/366/</a></td>
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<td>University of Texas at Austin</td>
<td><strong>REVISED RESPONSE</strong> (6/7/12, Diana Lockhart, Tuition Billing) &quot;The tuition is charged to the grant at whatever the individuals rate is; be that in-state or out-of-state. What is being charged are the cost associated with the specific individual performing on the grant. Appx.40.5% of graduate students receive NRT waivers.&quot; <strong>ORIGINAL RESPONSE:</strong> &quot;I believe the charge is directed proportionate to their appointments and based on the individuals assessed tuition rate (in or out of state).&quot; Jason Richter, Associate Director for Sponsored Projects Tuition: Liberal Arts Resident: $5,321, Nonresident: $10,582 per semester.</td>
<td>&quot;At our university, tuition and mandatory fees are rolled into one flat rate amount. The issuing department instructs us, via electronic documents, as to the coverage of in-state or out-of-state tuition and other additional fees (such as International Health Insurance, or Late Registration). The department also has the ability to include an amount to cover. If the amount is less than the total billed, the student is responsible for payment. Diana Lockhart Tuition Billing.</td>
<td>It is charged proportionate to the appointment.</td>
<td>&quot;At our university, tuition and mandatory fees are rolled into one flat rate amount. The issuing department instructs us, via electronic documents, as to the coverage of in-state or out-of-state tuition and other additional fees (such as International Health Insurance, or Late Registration). The department also has the ability to include an amount to cover. If the amount is less than the total billed, the student is responsible for payment. Diana Lockhart Tuition Billing.</td>
<td><a href="http://www.utexas.edu/research/osp/documents/tuition_remit.pdf">http://www.utexas.edu/research/osp/documents/tuition_remit.pdf</a></td>
<td><a href="http://www.utexas.edu/business/accounting/pubs/tf_grad_fall11.pdf">http://www.utexas.edu/business/accounting/pubs/tf_grad_fall11.pdf</a></td>
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<td>University of Virginia</td>
<td>Resident tuition is charged to grants. Resident: $15,108, Nonresident: $25,104</td>
<td>All GTAs, GRAs, and GAA s holding at least a halftime appointment (.125 FTE; the effort level is equivalent to 10 hours per week) qualify for tuition remission, the payment of in-state tuition and required fees, during the semesters in which they are employed in this capacity. Remission is limited to actual in-state tuition and required fees paid in the semester(s) of employment. If sufficient funds are not available from the appropriate source, the department chair and the dean should identify an alternative source of non-federal and non-state funds from which to make payment.</td>
<td>If sufficient funds are not available from the appropriate source, the department chair and the dean should identify an alternative source of non-federal and non-state funds from which to make payment.</td>
<td>No</td>
<td>Not indicated</td>
<td><a href="http://www.virginia.edu/Facts/Glance_Tuition.htm">http://www.virginia.edu/Facts/Glance_Tuition.htm</a></td>
</tr>
<tr>
<td>University of Washington</td>
<td>Resident: $12,670, Nonresident: $25,540</td>
<td>Graduate Operating Fee is equal to tuition less building fee and student activity fees. A Graduate Operating Fee &quot;waiver&quot; is the process by which non-resident tuition differential is waived. Graduate operating fee waivers are issued to a limited number of graduate students by the Graduate School. &quot;The building fee is part of our F&amp;A rate and other fees are generally being paid by the grad students.&quot;</td>
<td>&quot;Depends on the fees, some Dept may subsidize it if non-federal funds are available. Generally student will pay the remaining amount.&quot;</td>
<td>No</td>
<td>&quot;Generally waived by our Graduate School for tuition paid by a grant or contract budget. Feel free to contact me at the number listed above if you have any questions. Thanks&quot;</td>
<td><a href="http://opb.washington.edu/sites/default/files/opb/Tuition/2011-12-tf-annual.pdf">http://opb.washington.edu/sites/default/files/opb/Tuition/2011-12-tf-annual.pdf</a></td>
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Tuition Website

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<td>California Institute of Technology</td>
<td>A Graduate Research Assistant Rate of 65%/ $24,416 ($37,563 tuition &amp; fees 2011-12); Institute policy is to provide full tuition and fees for each research assistant working on a sponsored project who meets a required average workweek. 65% of the tuition and fees is charged to the grant or contract on which the GRA is working. This is paid by the sponsor as a special employee benefit.</td>
<td>No</td>
<td>The remaining percentage is paid out of university operating funds. CWRU does not charge overhead on tuition.</td>
<td><a href="http://bur">http://bur</a> sar.caltech.edu/expenses_gra_d.htm</td>
</tr>
<tr>
<td>Case Western Reserve University</td>
<td>charged to a grant varies depending on where the student is in his/her program. For students earlier in their programs who are taking nine credit hours per semester, Engineering charges a maximum of 75%/ $42,563 (tuition for Engineering $56,750 for 2011-12). For students later in their programs who are often registered for only one credit per semester, Engineering would charge 100%. Those students are still considered full-time, but they've completed all courses and enough dissertation credit that they only need to be registered for one hour.</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://studentaffairs.case.edu/internat">http://studentaffairs.case.edu/internat</a> ional/information/new/tuitionrates.html</td>
</tr>
<tr>
<td>Columbia University</td>
<td>Effective July 1, 1998, student salary is no longer subject to Fringe Benefits. In lieu of Fringe, tuition will now be charged, based on $18,230 per year effective September 1, 2010 (+3% inflation increase each year thereafter). This in an estimate of the tuition cost, and is subject to revision when the actual amount is determined. This tuition rate is exempt from Indirect Cost assessment. Tuition remission is budgeted under Other Direct Costs. No tuition remission is to be charged during summer months. Tuition for Graduate School of Arts and Sciences $18,778 per term</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://www.columbia.edu/cu/sfs/docs/University_Tuition_And_Fees/tuition-fees-11-12.html#N106A6">http://www.columbia.edu/cu/sfs/docs/University_Tuition_And_Fees/tuition-fees-11-12.html#N106A6</a></td>
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<td>Cornell University</td>
<td>It is CALS policy to waive 50% ($10,400) of the tuition for graduate assistantships that are supported on research grants to faculty. For those graduate assistantships funded by federal, state or nongovernment sponsored agreements, the 50% tuition waiver can be reported as cost sharing.</td>
<td>No</td>
<td>For academic year 2011-12, the tuition for the contract college research degree programs (M.A., M.S., M.S./Ph.D., Ph.D., MFA and DMA) is $20,800. Our current policy is that CALS will waive half of the tuition ($10,400) for assistantships paid on grants/contracts to college faculty. If mandatory cost sharing (matching) is required by a sponsor, the waived component can be listed as cost share (match) on proposals.</td>
<td><a href="http://www.dfa.cornell.edu/treasurer/bursar/studentsparents/tuition/index.cfm#C">http://www.dfa.cornell.edu/treasurer/bursar/studentsparents/tuition/index.cfm#C</a> P_JUMP_45031</td>
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<td>Duke University</td>
<td>Our tuition remission charge for 11-12 will be $2,865 regardless of the year of study, so approximately 14% in years 1-3 and 100% in the summer term and for years 4+. Also reflected on our T&amp;F schedule. Links to our Tuition Remission Policy and Fee schedule are below. Note that we are in the process of revising the Tuition Remission Policy but not significantly. We need to tweak and clarify a few things that created some issues after implementation. Please let me know if you have other questions or would like additional information.</td>
<td>No</td>
<td>The balance of tuition for students in years 1-3 and mandatory fees are covered by the Graduate School with scholarships. Health and Rec fees are partially recovered through a fringe rate that is applied to GSRA salaries.</td>
<td><a href="http://gradschool.duke.edu/documents/financial_support/tuition_recession.pdf">http://gradschool.duke.edu/documents/financial_support/tuition_recession.pdf</a> <a href="http://gradschool.duke.edu/documents/financial_support/AY11-12%20tuition%20fees%20stipend%20schedule.pdf">http://gradschool.duke.edu/documents/financial_support/AY11-12%20tuition%20fees%20stipend%20schedule.pdf</a></td>
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<td>Emory University</td>
<td>At present, PIs who sponsor graduate students are responsible for the student’s salary plus an Enrollment Fee of $1,250 per semester or $3,750 per year. Our policy is under review and we expect to propose a slightly different schedule in the next budget round. ($36,050 tuition for 2011-12)</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://www.gs.emory.edu/resources/financial.php?entity_id=10">http://www.gs.emory.edu/resources/financial.php?entity_id=10</a></td>
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<td>Harvard University</td>
<td>Effective July 1, 2007, graduate tuition remission may be charged to research awards at Harvard as a non-overhead-bearing direct cost. Tuition remission is the payment of tuition expense as part of compensation to students performing necessary work on federal research awards [Office of Management and Budget Circular A-21, Section J.45]. Unlike salaries and wages, tuition remission must be excluded from the application of indirect costs [OMB A-21, Section G.2]. Did not indicate the percentage of $39,324 (total tuition amount for 2011-12, full-time). Regarding Graduate Students on Federal awards: 1) They are not assessed fringe on their salary. 2) Tuition may be added to the award but only in proportion to their effort being paid on the award. 3) Tuition does not take overhead. Many departments in FAS use the NIH HRSA guidelines when it comes to paying Pre and Post Doctorial Students.</td>
<td>No</td>
<td>Did not indicate.</td>
<td><a href="http://www.gsa.harvard.edu/programs_of_study/special_students_costs_tuition_and_fees.php">http://www.gsa.harvard.edu/programs_of_study/special_students_costs_tuition_and_fees.php</a></td>
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<td>Massachusetts Institute of Technology</td>
<td>The Institute subsidizes ( \frac{50}{100}/$10,230 ) (total tuition for 2011-12 - $20,230) of academic-year tuition. The remaining 50% is charged directly to sponsored research projects. There is no Institute subsidy of an RA salary/stipend. Although 100% of the cost of tuition is an allowable cost for reimbursement purposes, MIT has elected to subsidize RA tuition to reduce the cost of a graduate student research assistant to a research grant.</td>
<td>No</td>
<td>MIT subsidizes the remaining 50% of AY tuition &amp; 100% of summer tuition, to reduce the cost of a graduate student to a research grant, and to improve the quality of faculty life.</td>
<td><a href="http://web.mit.edu/registrar/reg/costs/graduate/grad_fallspring12.htm">http://web.mit.edu/registrar/reg/costs/graduate/grad_fallspring12.htm</a></td>
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<td>New York University</td>
<td>We cover our full time graduate research assistants’ tuition on grants through a pool accumulated as a percentage of salary. For Arts and Science, the charge is 37% of all salaries and for others, 51%. Tuition is $1382 per credit (so 24 credits (full time for one academic year) would be $33,168 and fees are $910). Tuition remission gets charged to the sponsor at same rate regardless of how many classes are being taken or indeed, whether or not any classes are taken and the pool is designed to recoup 100% of the costs.</td>
<td>No</td>
<td>In any year when the pool runs short, the Deans pick up the remainder.</td>
<td><a href="http://steinhardt.nyu.edu/graduate_admissions/graduate_tuition">http://steinhardt.nyu.edu/graduate_admissions/graduate_tuition</a></td>
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<td>Princeton University</td>
<td>For graduate students supported on sponsored research grants and contracts which provide full F&amp;A costs, the proposal budget should include one-half of the tuition ($19,310) as specified on the ORPA rate sheet. The University will contribute the other half of the tuition, as voluntary uncommitted cost-sharing. Regular tuition: $38,620</td>
<td>No</td>
<td>The portion of the tuition paid by the University may be shown as cost-sharing when cost-sharing is required by the sponsor. The PI should be careful to consider an individual student’s status, i.e., taking courses or writing the dissertation, in calculating the tuition amount. If the University commits to cost-sharing at full tuition and a student goes on dissertation status at some time during the project, the department is responsible for covering the cost-sharing obligation.</td>
<td><a href="http://www.princeton.edu/graduate/about/docs/studentlife/1112_cost_of_education.pdf">http://www.princeton.edu/graduate/about/docs/studentlife/1112_cost_of_education.pdf</a></td>
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<td>Rice University</td>
<td>For doctoral students who are in their first three years, Rice charges full tuition (for FY12 is $34,900). For doctoral students who are working as research assistants (on externally funded grants but also institutional funded), we charge a tuition remission rate of ( \frac{38}{100}/$13,262 ) on the stipend paid from the grant.</td>
<td>Yes</td>
<td>The 38% recoups a portion of the cost of tuition from the grant. If we recouped the full amount the rate would be over 50%. So, the university covers the portion not generated through tuition remission.</td>
<td><a href="http://www.students.rice.edu/students/Tuition_Fees.asp#Grad_Prog">http://www.students.rice.edu/students/Tuition_Fees.asp#Grad_Prog</a></td>
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<td>Stanford University</td>
<td>Stanford calculates a Tuition Allowance as part of all Graduate Student Assistantship appointments. For PI (outside of School of Medicine), ( \frac{65}{100}/$8,678 ) (total tuition for 2011-12 - $13,350 amount vary see website) of the cost of Tuition Allowance for Research Assistants is charged directly to the source of funding that supports the Research Assistant’s salary. PI in School of Medicine pay ( \frac{81}{100}/$12,351 ) (total tuition for 2011-12 - $15,248) of the cost of Tuition</td>
<td>No</td>
<td>35% of the cost of Tuition Allowance is charged to University General Funds, or in the Graduate School of Business, to the School. PIs in School of Medicine -19% of the cost of Tuition Allowance will be absorbed within the School of Medicine.</td>
<td><a href="http://studentaffairs.stanford.edu/registrar/students/tuition-">http://studentaffairs.stanford.edu/registrar/students/tuition-</a></td>
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<td>Tulane University</td>
<td>Tulane does not generally charge graduate tuition to federal grants and contracts. Fulltime tuition for Graduate School of Liberal Arts $43,494</td>
<td>No</td>
<td>Student</td>
<td><a href="http://pandora.tcs.tulane.edu/acctrec/pdfs/TUITION_FEES_201130-201210.pdf">http://pandora.tcs.tulane.edu/acctrec/pdfs/TUITION_FEES_201130-201210.pdf</a></td>
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<td>University of Pennsylvania</td>
<td>The University provides one-half $15,030 ($30,060 for 2011-12) of a graduate research assistant's or fellow's tuition cost when an externally-funded research grant or contract provides the other half and the student is paid a stipend from the grant that is at least at the minimum University Fellowship level.</td>
<td>No</td>
<td>The University provides the other half as a tuition subsidy.</td>
<td><a href="http://www.sfs.upenn.edu/tuition/PHD-2011-2012.htm">http://www.sfs.upenn.edu/tuition/PHD-2011-2012.htm</a></td>
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<td>University of Rochester</td>
<td>The University of Rochester does not have a set institution-wide policy for tuition charged to grants and contracts. Most (basic science) departments in the medical school/center charge nothing, and some AS&amp;E departments request up to 50%. (Rochester charges $1,284 per credit hour for medical school, for an annual rate $43,100 for 2011-12.)</td>
<td>No</td>
<td>Tuition “scholarships” at the University of Rochester are awarded by the department (and school) and thus is (are) responsible for the total amount.</td>
<td><a href="http://www.rochester.edu/adminfinance/bursar/graduate.htm">http://www.rochester.edu/adminfinance/bursar/graduate.htm</a></td>
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<td>Vanderbilt University</td>
<td>Vanderbilt charges 35% of tuition to the research proposal; This policy &amp; practice was developed seven years ago as a standard across the university; it was determined to be reasonable, defensible and allowable. Tuition in the Graduate School will be charged at the rate of $1,680 per semester hour for the 2011/2012 academic year 24 hours = $40,320</td>
<td>No</td>
<td>The university pays the remaining amount; usually the responsible of the graduate student’s academic school.</td>
<td><a href="http://www.vanderbilt.edu/graduatefinancialsupport/">http://www.vanderbilt.edu/graduatefinancialsupport/</a></td>
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<td>Washington University in St. Louis</td>
<td>We don't charge tuition to federal grants, with the exception of training grants. Our Engineering School used to do so but discontinued. Arts &amp; Sciences does not, although it comes up for discussion occasionally. If we did charge tuition to federal grants, and only recovered partial tuition through the grant sources, the unfunded portion would simply become remission, financial aid sourced from school operating funds, in our system. The budgets for supporting grad students are managed by the dean of each school (Arts &amp; Sciences, Engineering, Medicine, Social Work) who can put a brake on grad student admissions when needed. Tuition for the 2011-2012 Academic year is $40,950.</td>
<td>No</td>
<td>The remaining 50% of tuition is covered by the applicable school (e.g., The Graduate School for students in FAS departments and the Medical School for students in its departments).</td>
<td><a href="http://graduateschool.wustl.edu/prospective_students/financial_information/tuition_fees">http://graduateschool.wustl.edu/prospective_students/financial_information/tuition_fees</a></td>
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<td>Yale University</td>
<td>Yale charges 50% ($17,250) tuition to research grants for graduate research assistants (called Assistants in Research at Yale). This is a university-wide policy.</td>
<td>No</td>
<td>The remaining 50% of tuition is covered by the applicable school (e.g., The Graduate School for students in FAS departments and the Medical School for students in its departments).</td>
<td><a href="http://www.yale.edu/graduateschool/financial/costs.html">http://www.yale.edu/graduateschool/financial/costs.html</a></td>
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<td>Carnegie Mellon University</td>
<td>I responded to Gema’s request back in September. I informed her that I tried collecting the information from a few different offices on campus but was unsuccessful in my attempts. I apologize, but I am unable to provide you with the information you requested. Good luck in your research. Melissa Baker</td>
<td>No</td>
<td>The remaining amount is paid by the University. None of our students pay tuition out of pocket.</td>
<td><a href="http://www.cmu.edu/hub/tuition/graduate/">http://www.cmu.edu/hub/tuition/graduate/</a></td>
</tr>
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<td>University of Chicago</td>
<td>We charge a fraction (45%) of the graduate student’s salary. By charging based on salary, the tuition charged accurately follows effort. This will cover about a quarter of the student’s tuition. The remaining amount is paid by the University. None of our students pay tuition out of pocket. ($44,568 tuition Social Sciences Division)</td>
<td>No</td>
<td>The remaining amount is paid by the University. None of our students pay tuition out of pocket.</td>
<td><a href="http://bur">http://bur</a> sar.uchicago go.edu/tuition.html#tuition</td>
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<td>Johns Hopkins University</td>
<td>&quot;Since Johns Hopkins is very decentralized, I’m answering these questions from the viewpoint of the School of Engineering. A graduate student’s salary and 20% tuition is charged to the grant for Ph.D. students. We also charge graduate student healthcare to the grant. For master’s students we normally do not charge either salary or tuition although that may vary by the student’s advisor. If the student is 100% on one project, that project would be charged for the Ph.D. student’s salary, 20% tuition, and healthcare for the year. If the student isn’t working 100%, we will charge a proportionate amount to the projects he/she is working on. The current policy is that the dean’s office picks up the other 80% tuition for Ph.D. student’s. For master’s students it is more complicated. The dean will pick up 50% tuition for master’s students if the student was an undergraduate at JHU or if the dean grants a waiver due to circumstances. If the master’s student’s advisor is well funded, the advisor might charge the 50% to the grant. If not, the student might be responsible for the 50%. Master’s students’ grant support varies by department and by the specific situation.&quot; Tuition:$42,280</td>
<td>No</td>
<td>The current policy is that the dean’s office picks up the other 80% tuition for Ph.D. students.</td>
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<tr>
<td>Brandeis University</td>
<td>&quot;We charge 1/4 of the tuition and a health services fee for support of graduate research assistants. The remaining 3/4 are covered by the graduate school akin to a scholarship. In some cases health insurance is charged as well.&quot; Brown University tuition for regular full-time students in the 2011-2012 academic year is $41,328</td>
<td>No</td>
<td>The remaining 3/4 are covered by the graduate school akin to a scholarship.</td>
<td><a href="http://ww">http://ww</a> w.brandei s.edu/gsas/financing-cost.html</td>
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<tr>
<td>Brown University</td>
<td>$42,162</td>
<td></td>
<td></td>
<td><a href="http://ww">http://ww</a> w.brown.edu/gradschool/financing-support/tuition-and-fees</td>
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<td>Northwestern University</td>
<td>Tuition: $13,864/quarter (8 or less terms) $41,592 $3,466/quarter (9 or more terms) $10,398</td>
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<td><a href="http://ww">http://ww</a> w.northw estern.ed u/sfs/tuiti on/t_grad _s_tuition. html</td>
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<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Berkeley</td>
<td>100% of tuition, Resident: $14,985, Nonresident: $30,087</td>
<td>Campus currently subsidizes 25% of tuition and non-res. supp. tuition for GSRs on extramural grants.</td>
<td>Campus subsidy</td>
<td>No</td>
<td>Campus subsidy</td>
<td><a href="http://registrar.berkeley.edu/?Page=feesched.html">http://registrar.berkeley.edu/?Page=feesched.html</a></td>
<td>Patricia Gates 510-642-8117</td>
</tr>
<tr>
<td>UC Davis</td>
<td>75% of tuition, Resident: $15,271, Nonresident: $30,373</td>
<td>*Full tuition and fees are charged to grants except the campus fee of ~$123 per term</td>
<td>Department pays campus fees</td>
<td>yes</td>
<td>Department pays campus fees</td>
<td><a href="http://budget.ucdavis.edu/studentfees">http://budget.ucdavis.edu/studentfees</a></td>
<td>Carlos Garcia 1 530 754 7941</td>
</tr>
<tr>
<td>UC Irvine</td>
<td>100% of tuition, Resident: $14,944, Nonresident: $30,046</td>
<td>*Full tuition and fees are charged to grants except the campus fee of ~$300 per year</td>
<td>Did not indicate.</td>
<td>yes</td>
<td>Did not indicate.</td>
<td><a href="http://www.reg.ucla.edu/fees/">http://www.reg.ucla.edu/fees/</a></td>
<td>Ana Lebon 310-206-4309</td>
</tr>
<tr>
<td>UC Merced</td>
<td>100% of tuition, Resident: $12,809, Nonresident: $27,911</td>
<td>Blended rate: higher than resident, lower than non-resident. Most GSRs are in the &quot;general pool.&quot; Actual GSRTF rates for 2011-12 are: CSE $2,220 * 9 = $19,980, ECE $2,558 * 9 = $23,022, MAE $2,175 * 9 = $19,575, SE $2,458 * 9 = $22,122, Physics $1,866 * 9 = $16,794 SIO $2,095 * 9 = $18,855 General Pool $1,757 * 9 = $15,813</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td>No</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td><a href="http://students.ucsd.edu/registration/index.html">http://students.ucsd.edu/registration/index.html</a></td>
<td>Jennifer Teixiera (209) 228-7832</td>
</tr>
<tr>
<td>UC Riverside</td>
<td>100% of tuition, Resident: $14,554, Nonresident: $29,656</td>
<td>Blended rate: higher than resident, lower than non-resident. Most GSRs are in the &quot;general pool.&quot; Actual GSRTF rates for 2011-12 are: CSE $2,220 * 9 = $19,980, ECE $2,558 * 9 = $23,022, MAE $2,175 * 9 = $19,575, SE $2,458 * 9 = $22,122, Physics $1,866 * 9 = $16,794 SIO $2,095 * 9 = $18,855 General Pool $1,757 * 9 = $15,813</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td>No</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td><a href="http://students.ucsd.edu/registration/index.html">http://students.ucsd.edu/registration/index.html</a></td>
<td>Kathryn Murphy 858-534-3724</td>
</tr>
<tr>
<td>UC San Diego</td>
<td>Blended (Tuition: Resident: $14,381 Nonresident: $29,483)</td>
<td>Blended rate: higher than resident, lower than non-resident. Most GSRs are in the &quot;general pool.&quot; Actual GSRTF rates for 2011-12 are: CSE $2,220 * 9 = $19,980, ECE $2,558 * 9 = $23,022, MAE $2,175 * 9 = $19,575, SE $2,458 * 9 = $22,122, Physics $1,866 * 9 = $16,794 SIO $2,095 * 9 = $18,855 General Pool $1,757 * 9 = $15,813</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td>No</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td><a href="http://students.ucsd.edu/registration/index.html">http://students.ucsd.edu/registration/index.html</a></td>
<td>Kathryn Murphy 858-534-3724</td>
</tr>
<tr>
<td>UC San Francisco</td>
<td>100% of tuition, Resident: $14,892, Nonresident: $29,994</td>
<td>Blended rate: higher than resident, lower than non-resident. Most GSRs are in the &quot;general pool.&quot; Actual GSRTF rates for 2011-12 are: CSE $2,220 * 9 = $19,980, ECE $2,558 * 9 = $23,022, MAE $2,175 * 9 = $19,575, SE $2,458 * 9 = $22,122, Physics $1,866 * 9 = $16,794 SIO $2,095 * 9 = $18,855 General Pool $1,757 * 9 = $15,813</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td>No</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td><a href="https://registrar.ucsf.edu/registration/fees/">https://registrar.ucsf.edu/registration/fees/</a></td>
<td>John Rutkowski SRO Director, 415-502-4029</td>
</tr>
<tr>
<td>UC Santa Barbara</td>
<td>100% of tuition, Resident: $15,300, Nonresident: $30,402</td>
<td>Blended rate: higher than resident, lower than non-resident. Most GSRs are in the &quot;general pool.&quot; Actual GSRTF rates for 2011-12 are: CSE $2,220 * 9 = $19,980, ECE $2,558 * 9 = $23,022, MAE $2,175 * 9 = $19,575, SE $2,458 * 9 = $22,122, Physics $1,866 * 9 = $16,794 SIO $2,095 * 9 = $18,855 General Pool $1,757 * 9 = $15,813</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td>No</td>
<td>For the General Pool, the over/under goes back to departments. Varies for the others</td>
<td><a href="http://www.registrar.ucsb.edu/feechart.htm">http://www.registrar.ucsb.edu/feechart.htm</a></td>
<td>Cara Egan Williams (805) 893-8809 and Cora Diaz, Asc Director, SPO 805-893-4035</td>
</tr>
</tbody>
</table>
100% of tuition, Resident: $15,946 Nonresident: $31,048
1. Purpose: This Circular establishes principles for determining costs applicable to grants, contracts, and other agreements with educational institutions. The principles deal with the subject of cost determination, and make no attempt to identify the circumstances or dictate the extent of agency and institutional participation in the financing of a particular project. The principles are designed to provide that the federal government bear its fair share of total costs, determined in accordance with generally accepted accounting principles, except where restricted or prohibited by law. Agencies are not expected to place additional restrictions on individual items of cost. Provision for profit or other increment above cost is outside the scope of this Circular.

45. Scholarships and student aid costs.

a. Costs of scholarships, fellowships, and other programs of student aid are allowable only when the purpose of the sponsored agreement is to provide training to selected participants and the charge is approved by the sponsoring agency. However, tuition remission and other forms of compensation paid as, or in lieu of, wages to students performing necessary work are allowable provided that --

(1) The individual is conducting activities necessary to the sponsored agreement;

(2) Tuition remission and other support are provided in accordance with established educational institutional policy and consistently provided in a like manner to students in return for similar activities conducted in nonsponsored as well as sponsored activities; and

(3) During the academic period, the student is enrolled in an advanced degree program at the institution or affiliated institution and the activities of the student in relation to the Federally sponsored research project are related to the degree program;

(4) the tuition or other payments are reasonable compensation for the work performed and are conditioned explicitly upon the performance of necessary work; and

(5) it is the institution's practice to similarly compensate students in nonsponsored as well as sponsored activities.

b. Charges for tuition remission and other forms of compensation paid to students as, or in lieu of, salaries and wages shall be subject to the reporting requirements stipulated in Section J.10, and shall be treated as direct or F&A cost in accordance with the actual work being performed. Tuition remission may be charged on an average rate basis.
<table>
<thead>
<tr>
<th>Public</th>
<th>Private</th>
<th>Canadian</th>
<th>UC campuses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia Institute of Technology</td>
<td>Brandeis University</td>
<td>McGill University</td>
<td>University of California, Berkeley (1900)</td>
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<tr>
<td>Indiana University</td>
<td>Brown University</td>
<td></td>
<td>University of California, Davis (1996)</td>
</tr>
<tr>
<td>Iowa State University</td>
<td>California Institute of Technology</td>
<td></td>
<td>University of California, Irvine (1996)</td>
</tr>
<tr>
<td>The Ohio State University</td>
<td>Case Western Reserve University</td>
<td></td>
<td>University of California, San Diego (1982)</td>
</tr>
<tr>
<td>The Pennsylvania State University</td>
<td>Columbia University</td>
<td></td>
<td>University of California, Santa Barbara (1995)</td>
</tr>
<tr>
<td>Purdue University</td>
<td>Cornell University</td>
<td></td>
<td>Non-AAU UC campuses</td>
</tr>
<tr>
<td>Rutgers, The State University of New Jersey</td>
<td>Duke University</td>
<td></td>
<td>University of California, Merced</td>
</tr>
<tr>
<td>Stony Brook University-State University of New York</td>
<td>Emory University</td>
<td></td>
<td>University of California, Riverside</td>
</tr>
<tr>
<td>Texas A&amp;M University</td>
<td>Harvard University</td>
<td></td>
<td>University of California, Santa Barbara</td>
</tr>
<tr>
<td>University at Buffalo, The State University of New York</td>
<td>The Johns Hopkins University</td>
<td></td>
<td>University of California, Santa Cruz</td>
</tr>
<tr>
<td>The University of Arizona</td>
<td>Massachusetts Institute of Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Colorado at Boulder</td>
<td>New York University</td>
<td></td>
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<tr>
<td>University of Florida</td>
<td>Northwestern University</td>
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<tr>
<td>University of Illinois at Urbana Champaign</td>
<td>Princeton University</td>
<td></td>
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<tr>
<td>The University of Iowa</td>
<td>Rice University</td>
<td></td>
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<td>The University of Kansas</td>
<td>Stanford University</td>
<td></td>
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<td>University of Maryland at College Park</td>
<td>Tulane University</td>
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<td>University of Michigan</td>
<td>The University of Chicago</td>
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<td>University of Minnesota, Twin Cities</td>
<td>University of Pennsylvania</td>
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<tr>
<td>University of Missouri-Columbia</td>
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<td>University of Oregon</td>
<td>Vanderbilt University</td>
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<td>University of Pittsburgh</td>
<td>Washington University in St. Louis</td>
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<td>University of Texas at Austin</td>
<td>Yale University</td>
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<td>University of Virginia</td>
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<tr>
<td>University of Washington</td>
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<td></td>
</tr>
<tr>
<td>The University of Wisconsin-Madison</td>
<td></td>
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</tbody>
</table>

Of the 28 public institutions,
27 included in the survey
1 missing

Of the 25 private institutions,
21 included in the survey
4 missing

Of the 2 Canadian,
0 included in the survey

Of the 10 UC campuses,
10 included in the survey
<table>
<thead>
<tr>
<th>University Name</th>
<th>Annual Tuition Rate</th>
<th>Annual Nonresident Rate</th>
<th>Year</th>
</tr>
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<tbody>
<tr>
<td>University of California, Los Angeles</td>
<td>14,618</td>
<td>29,720</td>
<td>1974</td>
</tr>
<tr>
<td>University of California, Riverside</td>
<td>14,892</td>
<td>29,994</td>
<td>1982</td>
</tr>
<tr>
<td>University of California, San Diego</td>
<td>15,300</td>
<td>30,402</td>
<td>1982</td>
</tr>
<tr>
<td>University of California, Santa Barbara</td>
<td>14,985</td>
<td>30,087</td>
<td>1900</td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>15,813</td>
<td>31,013</td>
<td>1900</td>
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<tr>
<td>University of California, Berkeley</td>
<td>14,381</td>
<td>29,483</td>
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<tr>
<td>University of California, Davis</td>
<td>15,271</td>
<td>30,373</td>
<td>1996</td>
</tr>
<tr>
<td>University of California, Davis</td>
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<td>30,373</td>
<td>1996</td>
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<tr>
<td>University of California, Santa Cruz</td>
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<td>30,373</td>
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<td>15,813</td>
<td>31,013</td>
<td>1900</td>
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<td>31,013</td>
<td>1900</td>
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## Item 3A.14 Graduate Remission Survey: UPDATED JUNE 8, 2012

2011-12 (Sorted by amount charged to grant)

<table>
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<tr>
<th>University</th>
<th>Annual Resident tuition</th>
<th>Annual Nonresident tuition</th>
<th>Charged to Grant</th>
<th>Charge Notes</th>
</tr>
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<tr>
<td><strong>Public</strong></td>
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<tr>
<td>University of Michigan</td>
<td>18,666</td>
<td>37,726</td>
<td>18,666</td>
<td>Resident</td>
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<tr>
<td>Rutgers, The State University of New Jersey</td>
<td>16,237</td>
<td>24,925</td>
<td>16,237/24,925</td>
<td>100% Policy is currently under review</td>
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<tr>
<td>University of Virginia</td>
<td>15,108</td>
<td>25,104</td>
<td>15,108</td>
<td>Resident</td>
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<tr>
<td>The Pennsylvania State University</td>
<td>17,172</td>
<td>29,656</td>
<td>14,630</td>
<td>Flat rate (Rev 6/2012)</td>
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<tr>
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<td>20,619</td>
<td>14,220</td>
<td>Resident (Rev 6/2012)</td>
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<td>12,670</td>
<td>25,540</td>
<td>12,670</td>
<td>Resident</td>
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<tr>
<td>University of Maryland at College Park</td>
<td>12,600</td>
<td>27,144</td>
<td>12,600</td>
<td>Resident</td>
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<tr>
<td>University of Missouri-Columbia</td>
<td>12,600</td>
<td>29,140</td>
<td>12,600</td>
<td>Resident</td>
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<tr>
<td>University of Florida</td>
<td>11,950</td>
<td>29,344</td>
<td>11,950</td>
<td>Resident No standard rule, commonly resident</td>
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<tr>
<td>The Ohio State University</td>
<td>11,400</td>
<td>28,125</td>
<td>11,400</td>
<td>Resident</td>
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<tr>
<td>Georgia Institute of Technology</td>
<td>11,171</td>
<td>26,606</td>
<td>11,146</td>
<td>Resident Tuition less $25</td>
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<tr>
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<td>10,991</td>
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<td>10,991</td>
<td>Resident Tuition plus insurance</td>
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<td>10,840</td>
<td>25,802</td>
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<tr>
<td>Indiana University</td>
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<td>10,523/30,668</td>
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<tr>
<td>Institution</td>
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<td>Charge</td>
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<tr>
<td>-------------------------------------------------</td>
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<td>----------------------------</td>
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<tr>
<td>Purdue University</td>
<td>9,478</td>
<td>27,646</td>
<td>9,478</td>
<td>Resident</td>
</tr>
<tr>
<td>The University of Iowa</td>
<td>8,810</td>
<td>24,168</td>
<td>8,810</td>
<td>Resident</td>
</tr>
<tr>
<td>The University of North Carolina at Chapel Hill</td>
<td>8,646</td>
<td>24,332</td>
<td>8,646</td>
<td>Resident Based on % effort</td>
</tr>
<tr>
<td>Iowa State University</td>
<td>8,508</td>
<td>20,224</td>
<td>8,508</td>
<td>Resident</td>
</tr>
<tr>
<td>The University of Wisconsin-Madison</td>
<td>11,375</td>
<td>25,133</td>
<td>8,000</td>
<td>Flat rate</td>
</tr>
<tr>
<td>The University of Kansas</td>
<td>7,532</td>
<td>17,618</td>
<td>7,532</td>
<td>Resident</td>
</tr>
<tr>
<td>University of Illinois at Urbana Champaign</td>
<td>10,908</td>
<td>24,174</td>
<td>6,545 to 14,504</td>
<td>Blended Tuition (Rev 6/2012)</td>
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<tr>
<td>Texas A&amp;M University</td>
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<td>11,982</td>
<td>6,348</td>
<td>Resident</td>
</tr>
<tr>
<td>Stony Brook University-State University of New York</td>
<td>11,498</td>
<td>17,788</td>
<td>5,084</td>
<td>Resident (6 credits)</td>
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<tr>
<td>Michigan State University</td>
<td>13,691</td>
<td>26,855</td>
<td>not specified</td>
<td>Resident* SI rate calculated on resident tuition--institution did not state exact amount</td>
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<tr>
<td>University at Buffalo, The State University of New York</td>
<td>10,536</td>
<td>16,826</td>
<td>not specified</td>
<td>Blended</td>
</tr>
<tr>
<td>University of Minnesota, Twin Cities</td>
<td>14,012</td>
<td>21,466</td>
<td>not specified</td>
<td>Resident Fringe benefit is charged rather than tuition</td>
</tr>
<tr>
<td>The University of Texas at Austin</td>
<td>10,642</td>
<td>21,164</td>
<td>not specified</td>
<td>100% (Rev 6/2012) Calculation based on % effort. Appx. 40.5% grad students receive NRT</td>
</tr>
</tbody>
</table>

**Private**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Annual Resident tuition</th>
<th>Annual Nonresident tuition</th>
<th>Charged to Grant</th>
<th>Charge</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Western Reserve University</td>
<td>56,750</td>
<td>56,750</td>
<td>42,563</td>
<td>75%</td>
<td>Varies by dept and level. This represents engineering</td>
</tr>
<tr>
<td>Institution</td>
<td>Annual Resident tuition</td>
<td>Annual Nonresident tuition</td>
<td>Charged to Grant</td>
<td>Charge</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------</td>
<td>-----------------------------</td>
<td>-----------------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rice University</td>
<td>34,900</td>
<td>34,900</td>
<td>34,900/13,262</td>
<td>100 or 38%</td>
<td>Depending on classification</td>
</tr>
<tr>
<td>Stanford University</td>
<td>40,050</td>
<td>40,050</td>
<td>26,032</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>California Institute of Technology</td>
<td>37,563</td>
<td>37,563</td>
<td>24,416</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>University of Rochester</td>
<td>43,100</td>
<td>43,100</td>
<td>21,550</td>
<td>50%</td>
<td>Generally but there is no policy</td>
</tr>
<tr>
<td>Cornell University</td>
<td>41,600</td>
<td>41,600</td>
<td>20,800</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Massachusetts Institute of Technology</td>
<td>40,460</td>
<td>40,460</td>
<td>20,460</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Princeton University</td>
<td>38,620</td>
<td>38,620</td>
<td>19,310</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Columbia University</td>
<td>37,566</td>
<td>37,566</td>
<td>18,230</td>
<td>Flat rate</td>
<td></td>
</tr>
<tr>
<td>New York University</td>
<td>34,078</td>
<td>34,078</td>
<td>17,379</td>
<td>37 or 51%</td>
<td></td>
</tr>
<tr>
<td>Yale University</td>
<td>34,500</td>
<td>34,500</td>
<td>17,250</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>30,060</td>
<td>30,060</td>
<td>15,030</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Vanderbilt University</td>
<td>40,320</td>
<td>40,320</td>
<td>14,112</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>The University of Chicago</td>
<td>44,568</td>
<td>44,568</td>
<td>11,142</td>
<td>25%</td>
<td>45% of the graduate student’s salary, equivalent to 25% of tuition</td>
</tr>
<tr>
<td>Brown University</td>
<td>41,328</td>
<td>41,328</td>
<td>10,332</td>
<td>25%</td>
<td>Plus health services fee</td>
</tr>
<tr>
<td>The Johns Hopkins University</td>
<td>42,280</td>
<td>42,280</td>
<td>8,456</td>
<td>20%</td>
<td>Salary, 20% tuition, and healthcare</td>
</tr>
<tr>
<td>Institution</td>
<td>Annual Resident Tuition</td>
<td>Annual Nonresident Tuition</td>
<td>Charged to Grant</td>
<td>Charge</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------------------------</td>
<td>----------------------------</td>
<td>------------------</td>
<td>--------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Duke University</td>
<td>40,720</td>
<td>40,720</td>
<td>5,701</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Emory University</td>
<td>36,050</td>
<td>36,050</td>
<td>3,750</td>
<td>enrollmen t fee of</td>
<td></td>
</tr>
<tr>
<td>Tulane University</td>
<td>43,494</td>
<td>43,494</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Washington University in St. Louis</td>
<td>40,950</td>
<td>40,950</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Harvard University</td>
<td>39,324</td>
<td>39,324</td>
<td>not specified</td>
<td>Based on % effort</td>
<td></td>
</tr>
<tr>
<td><strong>UC campuses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of California, San Diego (1982)</td>
<td>14,381</td>
<td>29,483</td>
<td>15,813</td>
<td>Blended</td>
<td>General pool rate is displayed</td>
</tr>
<tr>
<td>University of California, Santa Barbara (1995)</td>
<td>15,300</td>
<td>30,402</td>
<td>15,300/30,402</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, Berkeley (1900)</td>
<td>14,985</td>
<td>30,087</td>
<td>14,985/30,087</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, Irvine (1996)</td>
<td>14,944</td>
<td>30,046</td>
<td>14,944/30,046</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, Los Angeles (1974)</td>
<td>14,618</td>
<td>29,720</td>
<td>14,618/29,720</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, Davis (1996)</td>
<td>15,271</td>
<td>30,373</td>
<td>11,453/22,779</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Non-AAU UC campuses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of California, Santa Cruz</td>
<td>15,946</td>
<td>31,048</td>
<td>15,946/31,048</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, San Francisco</td>
<td>14,892</td>
<td>29,994</td>
<td>14,892/29,994</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>2011-12 (Sorted by amount charged to grant)</td>
<td>Annual Resident tuition</td>
<td>Annual Nonresident tuition</td>
<td>Charged to Grant</td>
<td>Charge</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-----------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>University of California, Riverside</td>
<td>14,554</td>
<td>29,656</td>
<td>14,554/29,656</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>University of California, Merced</td>
<td>12,809</td>
<td>27,911</td>
<td>12,809/27,911</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 2

Current Efforts to Improve UC Graduate Diversity


*The proportion of URMs decreases steadily with successive levels of the academic community (e.g., from high school graduates to undergraduate students to graduate/professional students, to postdocs, to faculty).*

*At each level of academia (i.e., undergraduate, graduate/professional, postdoctoral, faculty), UC must establish or reinforce academic preparation programs that will attract URMs, build upon the skills/competitiveness of diverse students and encourage/facilitate URMs to continue on to the next academic level. UC should expand or replicate successful academic preparation programs (with a focus on attracting URM students) at the pregraduate and preprofessional school level.*

With the passage of Proposition 209, the state constitution was amended to prohibit state government institutions from considering race, sex or ethnicity in public education (and other areas). Often it is thought that Proposition 209 prohibits institutions from actively seeking to outreach and recruit underrepresented minority students. Institutions can indeed seek to increase cultural diversity; the key is the mechanisms by which the goal is pursued. UC employs a wide range of programs, activities and initiatives designed to cultivate and encourage greater diversity on behalf of graduate education. These efforts are in compliance with Proposition 209. In order for UC to attract, enroll and graduate increased numbers of URM students it must make consistent and meaningful efforts.

Below are a variety of efforts being made to improve diversity at UC. The list focuses on outreach, preparation and pipeline efforts and is by no means exhaustive. Programs and efforts vary considerably by campus but many activities are common to all or most UC campuses. The information provided does not emphasize retention efforts or general community building on behalf of diversity. Retention and community building efforts are critical to cultivating an environment supportive of diverse scholars. Improving retention of URM scholars at every level, and the quality of their experience, is invaluable to impacting diversity at UC. This overview only briefly touches on retention; those strategies and efforts can be addressed separately.

**PREPARATION / IMPROVING THE PIPELINE:**

**Research opportunity programs** may occur during the summer or year-round. They may be department-based or sponsored by a graduate division or other entity. These programs are designed to provide undergraduate and master level students with university research experience. Exposing students to research experience, especially at a UC campus allows the student to obtain critical training and research experience, develop a relationship with a faculty mentor (as well as post docs and/or graduate students) and gain exposure to department or lab culture. The experience generally serves to make a student more competitive when applying to graduate school as the student is better prepared, has greater understanding of graduate level work and has a faculty member or researcher who can attest to their ability, interest, attitude and critical skills necessary to succeed in a Ph.D. program. UC offers a wide range of such programs. There are Graduate Division sponsored programs such as UCR’s Mentoring Summer Research Internship Program (MSRIP), UCB’s Summer Research Opportunity Program (SROP), UCSD’s Summer Training Academy for Research in the Sciences (STARS), UCI’s Summer Undergraduate Research Fellowship (SURF), UCLA’s Summer
Program for Undergraduate Research (SPUR), UCSF’s Summer Research Training Program (SRTP), UCSB’s Academic Research Consortium Summer (ARCS) Program and department or college focused efforts such as UCB’s Electrical Engineering and Computer Science ‘s Summer Undergraduate Program in Engineering Research at Berkeley- Information Technology for Sustainability (SUPERB-ITS), UCM’s California Alliance for Minority Participation (CAMP) and McNair programs.

- The number of students participating in these research programs vary. The more campuses can solicit or allocate support for these important preparation programs, the greater the potential to train and recruit talented participants. Committing financial resources to support these important outreach and training opportunities is critical for departments and programs to improve the numbers of underrepresented students in the pipeline. UCSF’s Summer Research Training Program (SRTP) serves an average of 55-65 students a year, of which over 70% are typically underrepresented. These students receive research experience, GRE preparation, research seminars and workshops on demystifying the road to graduate school. Students are provided necessary travel, a stipend and housing for the summer. This is typical of most summer research opportunities.

UCR offers another example of a longstanding summer research program, the Mentoring Summer Research Internship Program (MSRIP). It is an eight-week summer research program for approximately 35 participants. The program targets rising juniors, seniors (and some masters students) from educationally and/or economically disadvantaged backgrounds. Participants work under the supervision of a faculty mentor on the mentor’s research project. Many MSRIP alumni have successfully completed their doctorates at UCR or at other Ph.D.-granting institutions. Typically UCR, in collaboration with other campus undergraduate programs, sponsors approximately 45-50 students every summer in its MSRIP program.

Its primary objectives are to:

1. Provide preparation for graduate studies through a variety of workshops
2. Provide a mechanism that fosters faculty/student interrelationships
3. Introduce students to graduate opportunities at UCR
4. Assist the students in realizing their potential for graduate studies, in general, and at UCR, in particular
5. Expose the faculty mentors to the possibility of recruiting their interns to their departments

UC LEADS
UC LEADS (Leadership Excellence through Advanced DegreeS) Scholars Program: The goal of the University of California's Leadership Excellence through Advanced Degrees (UC LEADS) program is to educate California's future leaders by preparing promising UC students for advanced education in science, technology, mathematics and engineering (STEM). The program is designed to identify upper-division undergraduate students with the potential to succeed in these disciplines, but who have experienced situations or conditions that have adversely impacted their advancement in their field of study. UC LEADS is a systemwide program with a UC LEADS program on each of the ten UC campuses (UCSF works with undergraduates from the Berkeley campus). UC Davis provides central coordination and oversight for this comprehensive UC systemwide preparation program. UC LEADS represents a distinct investment of UC in preparing its own scholars for potential UC graduate experiences.
**UC-HBCU Initiative**
A competitive grants program designed to support UC faculty interested in actively collaborating and working with faculty and students enrolled at Historically Black Colleges and Universities. They create summer research opportunities at UC that expose HBCU scholars to the University of California and encourage them to consider attending UC for graduate school. The UC-HBCU Initiative is designed to support any HBCU student selected, based on faculty review criteria, irrespective of race, ethnicity, national origin, sex or gender identity.

[http://www.ucop.edu/research/gs/uchbcu/](http://www.ucop.edu/research/gs/uchbcu/) -- Program Overview
[http://www.ucop.edu/research/gs/uchbcu/awards.html](http://www.ucop.edu/research/gs/uchbcu/awards.html) -- Awardees

**Active collaborations w/minority serving institutions** include efforts underway as part of the UC-HBCU Initiative and other established campus and department activities. For example, as part of the UC-HBCU Initiative UC Santa Barbara has established a relationship with Florida A&M University. There has been an exchange of faculty visits and UCSB will host its first cohort of students in Summer 2012. There are eleven funded UC-HBCU Initiative projects across seven UC campuses (Berkeley, Davis, Irvine, Los Angeles Riverside San Francisco Santa Barbara). UC faculty mentors will welcome 35 HBCU scholars this summer.

Through the UC-HBCU Initiative, UCR has collaborated with the UNCF/Mellon Programs to create The Lindon Barrett Scholars Mentoring Program, where outstanding HBCU students actively engage with faculty and graduate student mentors conducting humanities research and preparing for graduate school at UCR. Independent of the UC-HBCU Initiative, UCR is also actively pursuing reciprocal graduate recruiting relationships with Howard University and Philander Smith College.

**Collaboration efforts between CSU and UC faculty** with a goal of exposing and preparing more CSU students to consider graduate school at UC include the following.

The California Professoriate for Access to Physics Careers was formed under the UC Alliances for Graduate Education and the Professoriate (AGEP) program and fosters the interaction of CSU and UC faculty to improve the diversity of Physics graduate doctoral programs.  

UC Riverside actively cultivates connections with CSUs in a number of ways, including hosting campus visits by prospective graduate students. Since 2009, UCR has run its UCR-SEED program, which provides incentives to departments to develop faculty and student interactions with their counterparts at CSUs. This includes underwriting visits by CSU faculty and students to UCR for research seminars and graduate recruitment days. It also provides the opportunity for UCR faculty to visit CSU campuses and interact with students and faculty.

**Faculty, departments and graduate divisions partnering with minority targeted research and preparation programs** include the CSU Bridge to the Doctorate, which has proven a successful vehicle to increasing participation of underrepresented students in PhD STEM programs and the CSU Sally Casanova Predoctoral Scholars Program as well as MARC and McNair Scholars Programs. SRTP and Inside UCSF directly target Minority Access to Research Careers (MARC), MCNAIR, (Research Internships in Science and Engineering (RISE), CAMP, and Louis Stokes Alliances for Minority Participation (LSAMP) Programs via online announcements and via Program Director outreach. 10-15% of Summer Research Training Programs participants yearly are MARC scholars.
UCR also has an active NSF Bridge to the Doctorate that recruits students of color into its graduate life-science and bio-medical programs. This program is associated with the LSAMP (Louis Stokes Alliances for Minority Participation) program and is run through UCR’s CAMP (California Alliance for Minority Participation) Currently, there are 10 students who have received Bridge to the Doctorate fellowships.

OUTREACH / RECRUITMENT:

Departments utilize focused electronic mailing lists, conference contact networks, or name exchange programs to contact potential applicants and encourage them to consider applying to UC (in some cases the Graduate Division subscribes to a service like the ETS Name Search Service and requests information for individuals who have registered to take the GRE, a department can specify certain criteria when requesting information (GPA, major, gender, ethnicity, etc). UCSF Graduate Division in 2011 began contacting SRTP and Inside UCSF participants of the previous three years to determine if they were applying to UCSF Graduate Programs, and to encourage them to do so. Names of past SRTP applicants were forwarded to program administrators and diversity committee contacts. A letter from the Graduate Dean accompanied names urging a strong review of applicants.

UC campuses including UCLA and UC San Diego also participate in the National Name Exchange. The Berkeley, Davis, Irvine, San Diego, Santa Barbara and Riverside campuses actively utilize the McNair graduate participant list and the UC Office of the President list of summer program participants for recruitment. The list from UCOP provides a rich source of information on students who attended summer research programs at any of the UC campuses. In addition to these resources UCR also utilizes participant lists from the Southern and Northern California Forums for Diversity in Graduate Education.

Actively cultivating and encouraging UC undergraduates to consider UC for graduate school is important. Activities include structured long-term efforts such as UC LEADS (Leadership Excellence through Advanced Degrees) but also faculty mentoring opportunities and less structured activities that allow UC undergraduates to be mentored by UC graduate students.

Diversity focused publications and webpages offering information and resources to inform and prepare applicants on the process of applying to graduate school (such UC’s “What’s next?” and campus graduate diversity pages, such as the information provided by UCB’s Diversity Program)

UC Outreach Booklet, What’s next?
http://www.universityofcalifornia.edu/graduate/admissions/_files2/pdf/UC_WhatsNext_Final.pdf

UC Graduate Admissions Website:
http://www.universityofcalifornia.edu/graduate/admissions/index.html

UCB Help with Applying to Graduate School:
http://www.grad.berkeley.edu/admissions/application_help.shtml

Engaging the entire graduate community on behalf of diversity. Faculty, graduate students, administrators and staff play key roles in outreach and recruitment efforts in support of diversity. It is critical that the entire graduate community prioritize diversity and ensure it is an integral part of ongoing efforts and achievements in the academy. Strategic participation of key members of the graduate community in outreach efforts is critical to effectively inform and encourage potential URM applicants to apply to UC programs.
Efforts such as supporting graduate students to assist and outreach to potential applicants are important. Having faculty encourage applicants at field-specific and discipline-focused conferences and actively following up with prospects can be very effective.

UCR was the Platinum Sponsor for the Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Conference in 2010, and Chancellor Timothy White addressed the conference of 4,200 attendees. UCR hosted 200 SACNAS students on its campus during the conference and introduced them to research faculty, provided laboratory tours, and gave seminars on how to successfully apply to graduate school. Pursuing this platinum sponsorship allowed UCR some unique and valuable outreach opportunities.

UCR and other UC campuses are regularly represented at key diversity events such as SACNAS, Annual Biomedical Research Conference for Minority Students (ABRCMS), the California Forum for Diversity in Graduate Education and UC Edge.

UCR has also been active in SHPE (Society of Hispanic Professional Engineers) and GEM (National Consortium for Graduate Engineering Degrees for Minorities), recently participating in the national SHPE conference in Anaheim (2011) and inviting 140 students to UCR for an introduction to its engineering faculty. UCR’s Bourns School of Engineering also has established a GEM partnership with Howard University.

UCSF Graduate Division was a Platinum Sponsor for the SACNAS Conference in 2011. UCSF recruit yearly at SACNAS, ABRCMS, CSU Diversity Forum, and UC Edge Conference.

UCSB attends SACNAS, ABRCMS, CSU Diversity Forum, UC EDGE, and 2-3 national McNair Scholar conferences annually.

At UC San Diego OGS partners with faculty and graduate students to give talks at California’s minority serving institution, the California State University system, visiting several CSU campuses each year with emphasis on local institutions, specifically CSU San Marcos and San Diego State University.

UC Davis has similar long-standing collaborations with select CSU campuses in Northern California and the Los Angeles area in which UC Davis faculty visit the CSU partner and CSU students are hosted at UC Davis. UC Santa Barbara collaborates with local CSU’s including, CSU Channel Islands, CSU Northridge and CSU Los Angeles to make presentations and host visits by student groups.

Graduate faculty travel to most UCs and CSUs to present on UC graduate programs. Many faculty and graduate students are active in general and field specific outreach within the state and nation. UC has a notable presence in efforts designed to expose, advise and encourage current URM undergraduate and master’s level students to pursue doctoral study.

Participation of UC faculty, graduate students and staff are invaluable in impacting UC’s URM outreach efforts. All UC campuses actively participate in the planning and execution of the semi-annual California Forums for Diversity in Graduate Education. The forums are a collaborative effort by UC and CSU institutions along with California private and independent colleges to encourage and inform underrepresented California college students about the process of applying to graduate study. Typically more than 1,100 students attend each forum, one in northern California and one in southern California, to learn about graduate opportunities and speak with recruiters from top institutions throughout the nation.
UCSF Graduate Division hosts Inside UCSF, a two-day program with national recruitment and participation of students from HBCUs, UCs, CSUs and Community Colleges. Students receive graduate application fee waivers and application assistance, university information, campus tours, lab tours, student panels, and faculty talks. Inside UCSF is a targeted event for freshman and sophomores with the aim that they participate in SRTP in junior or senior Year. In spring 2012 UCSD, UCI, and UCLA hosted 39 students from Morehouse College to learn about graduate student opportunities at UC. As a direct result, a number of Morehouse students will be participating in summer research programs at UCSD.

UCSD Office of Graduate Studies annually hosts current Native American and Alaska Native undergraduate students to provide information about the graduate application process and raise awareness of the Tribal Membership Initiative fellowship opportunity.

For the last three years, UC Santa Barbara has hosted Preview Days for prospective graduate students in various disciplines including Humanities and Fine Arts, Engineering, and the Earth/Environmental Sciences. As a result, a number of these students have participated in UCSB’s summer program and have applied to UC Santa Barbara.

UCR has maintained an active relationship with SACNAS and continues to participate in recruitment activities—including open houses and “grad days” to introduce potential graduate students to our campus. UCR also has used its FIPSE UCR-SEED grant to successfully partner with several of the CSUs to bring URM students to campus. Yields from recruitment continue to increase each year from these efforts.

**YIELD EFFORTS:**

Visit days and focused recruitment efforts can help demonstrate to URMs that the program and campus value diversity, support their success and would like to see them matriculate at UC. The role of current graduate students and faculty in such efforts are critical. Department and campuswide efforts are made in support of encouraging students that contribute to campus diversity to accept the offer of admission. Such efforts should not be overlooked.

**Personal outreach by faculty and graduate students** to potential students throughout the application process and after they have been admitted can be very helpful in recruiting students. Faculty and current graduate students should make an effort to address questions and encourage them to accept the offer of admission. Regular personal communication with potential applicants can help boost the number of underrepresented students choosing to apply and once admitted such attention can go a long way in encouraging students to accept an offer. Genuine personal interest and attention, along with being a good research fit can strengthen a program’s yield rate.

**Fellowship and funding opportunities.** Funding such as the former ACDP (Academic Career Development Program) awards, other top multi-year awards, top off awards and other efforts are critical in competing for top students. Offering talented URMs very competitive fellowship/support offers and demonstrating a department’s commitment/interest in their success and well being is important in successfully competing for students who are often very much sought after from other institutions. The University of California Diversity Student Financial Support Program (formerly known as ACDP) consists of the following: The Eugene Cota-Robles Fellowship Program
The Graduate Research Mentorship Program  
The Dissertation Year Fellowship Program  

These programs are intended to promote graduate academic student diversity by providing financial and mentorship support for graduate academic doctoral students at different stages in their graduate academic career. Campuses typically supplement (significantly) their original systemwide budgets for these programs. These fellowships and other financial efforts in support of diversity are important in demonstrating the University’s commitment.

American Indians and Alaska Natives are extremely underrepresented in graduate education and as a population. UC San Diego has established the Tribal Membership Initiative, which offers two years of centrally-funded fellowship support to students who demonstrate that they are either (1) a member of a federally-recognized tribe or (2) Native Hawaiian (http://ogs.ucsd.edu/student-affairs/graduate-diversity/diversity-initiatives/tribal-membership-initiative/index.html). This initiative is Proposition 209-compliant because it involves recognition of a political affiliation, rather than awarding preference based on race, ethnicity or national origin.

While systemwide funding is limited, previous committees, as well as the graduate division deans examining these programs feel there is great value in UC offering diversity focused funding. The symbolism of support for diversity is important.

Offering competitive multi-year funding packages is critical to competing for top students.

**SELECTED RETENTION EFFORTS:**

In addition to adequate financial resources, a campus environment that values and supports diversity is critical to the retention of underrepresented graduate students. While this summary does not focus on retention efforts it is important to note their importance in meaningful long term success on behalf of improving graduate diversity. UC San Diego is highly engaged with the National Bouchet Graduate Honor Society which recognizes and celebrates student contributions to diversity. See http://ogs.ucsd.edu/student-affairs/graduate-diversity/student-support-and-programs/bouchet-graduate-honor-society/index.html. UC San Diego Office of Graduate Studies also hosts Competitive Edge, an eight-week summer bridge program. The program provides an early start for new incoming students who are underrepresented or first generation. Competitive Edge is collaboratively funded between OGS and graduate departments. Such efforts play a key role in contributing to an environment of success and supporting diversity.

Additional efforts on behalf of retention and cultivating an environment conducive to diversity include UC Irvine’s recently launched DECADE, a program designed to enhance recruitment and retention of underrepresented students in all academic disciplines (http://www.grad.uci.edu/about-us/diversity/decade/index.html). Activities to date have included an assessment of campus climate, evaluation of the effectiveness of Competitive Edge - a pre-entry summer program for new doctoral students, a speaker series, and formation of campus and school-based councils to address issues of equity and diversity at the graduate program level. Faculty advisors and mentors have also been identified and encouraged to develop innovative solutions to enhance graduate diversity.

UCLA also hosts a Competitive Edge Bridge to the Doctorate for admitted students. The 6-week program includes full-time, faculty-guided research and mentoring as well as academic and professional workshops. See http://www.gdnet.ucla.edu/agep/edge.htm.
The UC Davis Office of Graduate Studies actively supports The Black Graduate and professional Student Association and the Latino Graduate Student Association as part of its overall retention efforts for underrepresented students. Graduate Studies also provides financial support for graduate student assistants who work in the Cross Cultural Center, the Lesbian, Gay, Bisexual and Transgender Resource Center and the Women’s Resource and Research Center to ensure that the diverse population of graduate students is supported.

UC Santa Barbara offers the Summer Doctoral Research Institute (SDRI) for incoming students. The goal of SDRI is to provide an opportunity for incoming scholars to begin a course of research prior to their fall quarter enrollment; they enjoy the benefits of hands-on mentoring, advance introduction to respective program and departmental expectations, and early exposure to professional academic environment that is UC Santa Barbara. Throughout SDRI, the Graduate Division hosts a series of workshops featuring topics such as “How to Build Relationships with Faculty Mentors” and “Information on Funding Opportunities.”

Similar to UC Santa Barbara’s SDRI, UCR offers its GradEDge summer program to approximately 25 incoming graduate students. The program is intended to give these students a head-start on faculty mentored research while simultaneously providing them with grant-writing and professional development workshops.

UCR has a number of retention focused efforts through its GRADPREP/GSRC. Its Mentorship/First Year Graduate Success program has been especially effective in retention efforts, with an attrition rate of only 1% during its first two years of operation (usual attrition rates in year one are, nationally, about 12%; for at risk populations that increases to about 15%). This year (2012-13), UCR will have opportunities for 100 new graduate students who meet the campus diversity profile to participate in its mentorship program.

UCR offers the Medical Scholars Program (MSP), which aims to increase the diversity of UC Riverside Students who succeed in their BS or BA training and achieve their goal of entering medical school or post graduate programs and research. This program offers academic support in the form of Peer Mentors & Transfer Ambassadors, Faculty and staff mentors and advisors, Academic Coaches for science and math classes, research opportunities, including an 8 week, full-time paid summer research internships with UCR faculty, part-time academic year research program, and an annual research symposium. It also provides professional career development and community service opportunities. The MSP program has been a Hughes Grant Recipient.

**MAXIMIZING THE END OF THE PIPELINE:**

**UCSF Post doc boot camp** – Efforts such as this help equip underrepresented scholars to effectively pursue postdoc opportunities following the completion of their Ph.D. Postdoctoral opportunities are a critical pathway for competitive industry and academic appointments.

**UC President’s Postdoctoral Fellowship Program.** The program selects fellows who will contribute to diversity and equal opportunity at the University of California through their teaching, research and service. Of the former PPFP fellows hired into faculty appointments since 2003: Of the 91 total, 24 have been reviewed for tenure and 23 have been tenured. There is another group of 10 faculty hired from this program from 1999-2003 who all received tenure. Thus of the 34 fellows that were eligible for tenure, 33 have obtained tenure. Faculty is critical to impacting diversity at every level of the academy. Thus having more faculty members that come from a wide range of
communities, backgrounds and cultures contributes to diversity and models equity and inclusion in the academy.

OTHER IMPORTANT EFFORTS:

**Actively supporting faculty mentoring and diversity focused efforts.** The UC-HBCU Initiative is one example as UC is funding the interest and projects defined by faculty. Other efforts include UC San Diego’s Office of Graduate Studies regularly convening meetings of its Diversity Coordinators, a group of faculty and staff representing all programs who focus on best practices for the recruitment and retention of under-represented students in all disciplines (http://ogs.ucsd.edu/student-affairs/graduate-diversity/diversity-initiatives/diversity-coordinators/index.html).

UC Irvine has recently expanded its ADVANCE program for faculty diversity to include graduate students and postdoctoral fellows (http://advance.uci.edu/about.html).

UCLA created a Student Affairs Officers Advisory Committee to explore best practices in outreach, recruitment, and diversity.

Participating in conferences, institutes and other knowledge sharing and building opportunities enhance the resources and collaborators available in working to address the challenges in building and supporting a diverse academic community. Faculty, graduate students, administrators and staff are involved in such efforts. For example, the UCLA Graduate Division participated in the 2012 College Board’s Native American Student Advocacy Institute, presenting a session on Diversifying Graduate Programs: Best Practices for Graduate Recruitment and Retention of Native American Students.

**Examining diversity efforts and URM enrollment by program on a regular basis with an eye toward supporting improvement and acknowledging success.** This may be done by Graduate Division Deans, Discipline or College Deans and Department Chairs. Along with other key factors such as time to degree, completion rate, student support levels/funding packages and debt rates, departments (chairs) should be held accountable for progress and/or evident commitment to a plan for improvement.

Resource allocation is essential to influence departmental behavior. Diversity must be integrated into the forefront of departmental efforts and priorities. Doing so will help to demonstrate the University’s commitment to diversity and promote more alignment of behavior with the commitment.

**Incentivizing or acknowledging faculty mentoring and diversity cultivation efforts.** UCSD’s Graduate Student Association offers annual awards to faculty who exemplify outstanding mentoring practices and to both students and faculty who enhance the campus community, particularly in the area of diversity.

**WEBSITE RESOURCES:**

Many UC campus websites provide helpful information regarding diversity efforts and resources. The following UCB Diversity Program links are useful resources in understanding the breadth of support available at some campuses:

UCB Graduate Diversity Program campuswide efforts: http://diversity.berkeley.edu/graduate/gdp/goa
UCB Recommended Departmental Outreach Efforts: http://diversity.berkeley.edu/graduate/gdp/rdoe
UCB Help with Applying to Graduate School:  
http://www.grad.berkeley.edu/admissions/application_help.shtml

Other UC campus websites also provide a great overview of the range of efforts underway to cultivate diversity at UC. Some examples:


UC Irvine Graduate Division website - http://www.grad.uci.edu/about-us/diversity/

UC Davis Graduate Studies website - http://www.gradstudies.ucdavis.edu/prospective/diversity.html

The UCLA Graduate Division also provides various diversity offerings and resources to prospective and current graduate students - http://grad.ucla.edu/asis/diversity/index.html
APPENDIX 3

UC Campus Efforts to Prepare Ph.D. Students for Multiple Career Pathways

The preparation of doctoral students for multiple career pathways is an area of great importance in the academic graduate community. UC has varying levels of structured efforts. Below is a brief summary of current efforts at each of the ten UC campuses. To learn more about career pathways for PhD students a useful resource is the recent report from the Council of Graduate Schools on “Pathways Through Graduate School and Into Careers” (http://pathwaysreport.org/).

UC Berkeley
Career Center services to help students explore and pursue the range of career options available to advanced degree candidates include: Career Exploration, Job Search Resources, and information about Graduate Students and Internships. The Career Center holds a three-week workshop series “Looking Beyond Academia,” addressing information and strategies designed to help students make an informed and affirmative choice of their next career.
https://career.berkeley.edu/PhDs/PhDBeyond.stm

UC Davis
The Office of Graduate Studies has an active partnership with the Internship and Career Center. Central to this partnership is a shared staff position. Collaboratively, the two offices provide a robust professional development program for graduate students and postdoctoral scholars throughout the academic year. Many of the seminars and workshops offered under this program provide opportunities for students to explore a broad range of career options with and outside academia. Example topics include: Translating the Advanced Degree: Transferable Skills Workshop (http://iccweb.ucdavis.edu/graduates/pds/#16), Mock Interviewing: Interview Practice for Landing a Job Beyond Academia (http://iccweb.ucdavis.edu/graduates/pds/#23), and Project Management in Industry Panel Discussion (http://iccweb.ucdavis.edu/graduates/pds/#22).

The Pathways Career Symposium is co-sponsored by the Internship and Career Center and the Office of Graduate Studies each year. This day-long event takes place on a Saturday in winter quarter each year. Sessions run concurrently throughout the day on a variety of career development topics both within academia and in the private and public sectors. Distinguished speakers are professionals from academia, industry and government. The Office of Graduate Studies has recently proposed and expanded a professional development program that will reach an even greater share of the graduate student population. http://gradstudies.ucdavis.edu/students/professional.html

UC Irvine
The Career Center dedicates an advisor to graduate student career advising. It holds a number of workshops throughout the year for graduate students focusing on both academic and non-academic careers. It also holds a summer bootcamp for imminent job seekers. The Graduate Division collaborates with the graduate career counselor to host drop-in hours and workshops at its Graduate Resource Center, and will provide additional support in the upcoming year in the form of a graduate student peer mentor program. http://www.grad.uci.edu/services/careers/index.html

UC Los Angeles
The Ph.D. Career Training Series workgroup organizes events designed to fit the career needs of doctoral candidates and postdoctoral scholars at UCLA. The workgroup is comprised of postdoctoral scholars and staff from the California NanoSystems Institute (CNSI); Office of Graduate Students and
Postdoctoral Scholars in the David Geffen School of Medicine; the Society of Postdoctoral Scholars; and the Graduate Division. The topics are designed to be of interest to most doctoral candidates and postdoctoral scholars, regardless of research discipline. In addition to a career mentoring luncheon series for postdoctoral scholars, workshops include topics on fellowship applications and grant-writing, research paper and manuscript writing, networking and interviewing (for example, Transition from Academic Training to Government/Private Sector Careers) and work-life balance.

**UC Merced**

UC Merced utilizes its Career Services Center to expose graduate students to alternate career paths. This is done through assisted job searches and through an invited speaker program. In addition, the Graduate Dean teaches a professional development course for all graduate students. This course focuses on responsible conduct in research and career development. Course content exposes the students to nonacademic career options. Finally, the Office of Research Development Services runs a series of proposal writing workshops designed to increase the capacity of graduate students to seek funds for postdoctoral employment in academic as well as in the government and commercial sectors.

**UC Riverside**

UCR Graduate Division has established a GRADPREP (Graduate Professional and Educational Program) that is staffed by one full-time director and six half-time peer counselors. Among the programs that we provide is a University Teaching Certificate course (two quarters), which is advanced training in pedagogy. This is specifically designed for students who see themselves going into a teaching rather than a research career, but who are not getting adequate teaching experience or training in their programs.

The Graduate Division also runs a series of seminars/colloquia through our Graduate Student Resource Center (which is one of the GRADPREP components). These seminars are aimed at those students who are considering seeking employment outside of academia, whether in research careers, or in other areas of the private or governmental sector. Typically these colloquia bring together alumni or former faculty who have made the successful transition to non-academic careers, and who can offer specific insights and resources for students.

GRADPREP also operates a writing center specifically for graduate students. One of the many activities the writing center provides are workshops on crafting application letters, on interviewing and negotiation skills, and on designing personal websites for those seeking jobs in non-traditional venues.

GRADPREP also partners with Career Services to help focus their efforts on the needs of graduate students. Workshops and seminars in conjunction with Career Services have helped students with researching and identifying opportunities beyond the usual academic options, and preparing to compete successfully for those jobs.

The Graduate Division and the Graduate Dean are also actively involved in a nascent national campaign to begin to change the culture of how potential employers perceive Ph.D.s as job candidates in areas outside their research expertise. It is the conviction of UCR that Ph.D.s possess any number of transferable skills that would benefit employers; that they are exceptionally good at absorbing new training; that their communication skills tend to be very high, that they are exceptional at synthesizing large amounts of disparate information, and that they tend to be among the very best at meeting deadlines and seeing tasks through. As such, they are outstanding candidates for any number of positions; yet most employers may overlook them as “over qualified.” Part of the campaign’s goal is to help change this perception and to demonstrate what a value a Ph.D. is as an employee, regardless of the specialization.
**UC San Diego**

The Career Services Center dedicates an advisor to graduate student career advising. The Career Center holds a number of workshops throughout the year specifically for graduate students focusing on both the academic and non-academic career search. In addition to an Academic Job Search series, workshop topics include: It’s never too early to think about the Job Search; Academic Interview Basics for Ph.D.s; and Mastering the Academic “Job Talk”. Non-academic career search workshops include Questioning Career Transition; a series titled Looking Beyond Academia; and Interview Practice Beyond Academia for Graduate Students.

The Graduate Student Association and Career Services Center, with the Office of Graduate Studies host the annual Ph.D. Career Conference. The conference agenda includes plenary sessions by prominent speakers followed by discipline-specific panels of Ph.D. graduates representing both academic and non-academic careers. Looking ahead, UC San Diego is actively engaged in planning for a new effort to prepare graduate students for the full range of career options available to them as part of a campus-wide education initiative. While this effort remains in the planning stages, the goal is to provide students with a range of transferrable skills, as well as more comprehensive instruction in University-level teaching, that could aid their transition to a variety of positions.

**UC San Francisco**

The Office of Career and Professional Development (OCPD) provides programs and workshops, online resources and individual assistance for PhD students and postdocs considering multiple career pathways. These efforts are designed to not only build awareness about the many career pathways available to Ph.D.-level students, but also to help students make confident decisions about their pathway choices. OCPD staff have co-authored a web-based career decision making tool for Ph.D.-level scientists and engineers who are considering multiple career pathways, which will be published and freely available nationwide on July 27, in collaboration with the Burroughs Wellcome Fund and Science magazine’s website.

The Graduate Student Internships for Career Exploration (GSICE) Program aims to support mentored career exploration by providing career planning and internship opportunities for UCSF basic and biomedical Ph.D. students, so that they can make free and informed career decisions by the time of graduation. A collaboration among the Graduate Division, School of Medicine Dean’s Office, and Office of Career and Professional Development, GSICE is a unique experiential-education program designed to help PhD-level students in the life sciences explore multiple career pathways away from academic research. GSICE career pathway options include industry research, law, business, policy and education/communication. GSICE components include an eight-segment training program, hands-on experience through a full-time internship, and individual mentorship with career professionals.

**UC Santa Barbara**

UCSB Graduate Division has established the Graduate Student Resource Center (GSRC), which acts as a hub and a clearinghouse for workshops, activities, and information about career and professional development for graduate students. As examples of the types of activities that are sponsored through this Center, two surveys about the assessment of importance and availability of training in 17 different areas of career and professional development (one for graduate students, one for faculty graduate advisors) were recently completed. The information from these surveys, as well as an extensive mapping of career development opportunities on campus, has been used for planning a curriculum of career and professional development skills to prepare students to effectively make the transition from graduate school to successful careers, whether it’s in academia, non-profits, industry, or other career paths. Planned events include panels of alumni in non-traditional careers, seminars
about job interviews and negotiations, and workshops related to using technology in various fields. Example workshops include “Early Career Research Strategies for New Ph.D.s in the Humanities, Social Sciences, and Arts”, “Building a Digital Reputation and Finding a Job”, and “Rethinking Career Paths for Ph.D.s: Postdoc Surveys and Careers in Biotech”. An integral part of the GSRC is the “GradPost”, a graduate student blog, which hosts articles such as “Getting a Job 2.0: Branding, Digital Reputation, and Social Media”, “The Keys to Successful Networking” (http://gradpost.ucsb.edu/career/2012/1/23/the-keys-to-successful-networking.html), and “Tips for the Industry Job Search” (http://gradpost.ucsb.edu/career/2012/6/7/tips-for-the-industry-job-search.html).

**UC Santa Cruz**
Grad Student Commons / Graduate Division: Created a GSR position (Professional Development Coordinator), filled by a graduate student who works with and liaisons between the Grad Student Commons, the Career Center, the Graduate Division, and various other departments and divisions on campus to provide a wide array of professional development programming and resources. Many events are relevant to graduate students following non-traditional career paths in industry, management, or non-tenure track academic positions. In the last academic year, some workshops offered to graduate students included: transferable skills (translating the CV to a resume), cover letters for non-academic positions in the sciences and humanities, making the most of your mentor relationships, conflict management and communication, professional website development, grant writing and funding sources, self-management and leadership, and STEM field careers.

The Graduate Leadership Program: A new graduate student leadership certificate program introduces a range of leadership theory, practical skills, and special topics relevant for application in both academic and professional contexts. With a varied format including readings, interactive group activities, case studies, panel discussions, and professionally conducted workshop sessions, program participants learn about major trends and debates in contemporary leadership thought, gain familiarity with project management and budgets, develop practical skills for negotiation and conflict resolution, and discuss modes of translating disciplinary expertise into social innovation and impact. The sessions emphasize collaborative teamwork and the positive, productive employment of the different disciplinary perspectives and backgrounds students bring to the program.

This opportunity is provided to a select group of graduate students across the disciplines with an introduction to up-to-date leadership thought and practical workshops to develop their academic and professional leadership skills. Some of the topics covered: Contemporary Leadership Philosophies; Academic Leadership and Administration; Negotiation and Conflict Resolution; Project Management; Mentorship; Innovation and Creativity; and Entrepreneurship. Students who complete the program are awarded a UCSC Graduate Council approved certificate, enhancing the value of their graduate degrees.

UCSC Career Center: In the past year the Career Center has seen a renewed focus on graduate student needs, particularly those interested in non-academic careers. The Career Center offers one-on-one advising on transforming academic CV’s to resumes, cover letter construction, and career information. Their website offers a range of resources for job seekers, including specific information and resources on non-academic careers.