

University of California - Irvine

ADVANCE Program

External Evaluation Report

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I. Introduction

The UCI ADVANCE proposal to the National Science Foundation (NSF) was designed to leverage projected institutional growth toward the goal of gender equity in the science and engineering disciplines. The UCI campus was created during a wave of growth in the student population during the mid 1960s (McCulloch 1996¹). Envisioning another such wave during the first decade of the new millennium (Tidal Wave II) led to the vision for UCI's ADVANCE proposal to the NSF: a significant increase in faculty hiring could provide an opportunity to transform the institutional culture by addressing barriers to diversity in science and engineering fields, including barriers related to recruitment and advancement, salary inequity, and culture and climate. If these obstacles could be surmounted, an increase in hiring overall could be harnessed to increase the proportion of women faculty in strategic areas across the campus. The overarching vision is not only to increase diversity, but the pursuit of academic excellence; that is, ensuring that UCI is able to recruit and retain the very best faculty possible by creating a campus culture where a diverse faculty can flourish.

To achieve the overarching vision, and address the barriers described in the proposal, the UCI ADVANCE Program proposed four specific aims (see UCI ADVANCE proposal pages 5-10):

- 1) Appoint equity advisors to provide School-based assistance in recruitment and retention, and term Chairs to promote the goals of ADVANCE;
- 2) Develop and maintain databases of gender equity indicators;
- 3) Increase the recruitment of women so as to substantially increase the presence of tenure-track women faculty in the sciences; and
- 4) Implement faculty development, retention and advancement; set up a program for assistant and associate professors to assure promotion to tenure and full professor, and to develop their careers beyond these barriers, including into administrative positions; strive to retain women faculty and increase their job satisfaction by assuring equal treatment in all relevant measures at all ranks.

The NSF proposal was awarded for a period of five years (2001-2006), and UCI later received NSF approval for a two year no cost extension (2006-2008). During this later period, UCI administration

¹ See McCulloch, Samuel Clyde, 1996. *Instant University: The History of the University of California Irvine, 1957-93*. Irvine, CA: University of California, Irvine.

institutionalized the program through self-funding, and expanded the concept of diversity to include underrepresented minorities (URMs).

An external evaluation of program outcomes was included as an integral component of UCI's ADVANCE proposal to the NSF. Two external evaluations were planned, one at the mid-point of the program (conducted in 2005 by Dr. Laura Kramer) and one at the conclusion of the NSF portion of the project, represented by this report. This external evaluation report takes into consideration the entire seven year period of the project (2001 – 2008).

The objectives of the present evaluation are: 1) to assess the outcomes of the ADVANCE program with respect to its four specific aims (i.e., to determine the extent to which these aims have been accomplished); and 2) to provide recommendations to UCI regarding ways in which the program might be modified and/or strengthened to meet its goals for the future. The first objective will be addressed in the Findings section of the report, and the second objective will be addressed in the Recommendations section.

UNDERREPRESENTED MINORITIES

There has been a long-standing interest on the University of California Irvine campus in the possibility of connecting issues and questions related to gender equity with those related to diversity (i.e., specifically with respect to underrepresented minorities, or URMs). As early as 2005, a proposal was made to the NSF to incorporate "Diversity Officers" into the Equity Advisor concept, permitting collaboration between the former (which would be supported by UCI) and the latter (which would continue to be supported by NSF). Because the NSF ADVANCE Program is dedicated wholly to gender equity, and NSF is required to compare and contrast data emerging from models with this intent, however, diversity objectives only could be integrated into ADVANCE once UCI had taken over institutionalization of the program in 2006. At that point, increasing the representation of underrepresented minority faculty became one of the goals of the UCI ADVANCE Program.

Since the NSF ADVANCE Program is focused on gender equity in science and engineering disciplines, this external evaluation focuses on that subject. The institutionalized structure of UCI ADVANCE also values recommendations pertaining to diversity and inclusion more generally, especially as these characteristics may be fostered in the future. Therefore, the final section of this report will include recommendations that pertain to the inclusion of underrepresented minorities in the ADVANCE Program.

Data and Methods

The external evaluator had access to several forms of data available on the ADVANCE Program website, through the Program Office, and as the result of a site visit, which together comprise the basis for the present report. Archival and web data sources include:

1) UCI's proposal to NSF, annual reports from 2002-06, and UCI's response to the 2004 NSF site visit;

- 2) Dr. Kramer’s 2005 mid-term evaluation and UCI’s response;
- 3) Documentation and reports representing the UCI ADVANCE database (see Appendix A for a listing);
- 4) UCI and other policies pertaining to diversity and inclusion (see Appendix B for a listing);

The external evaluator conducted a four day site visit on the UCI campus from February 19 – 22, 2008, with logistical support from the UCI ADVANCE Program Office. The site visit involved individual interviews and focus group meetings with 56 participants in UCI’s ADVANCE Program, including the Principal and Co-Principal Investigators, Program Director and Coordinator, Executive Vice Chancellor and Provost, Vice Provost, Equity Advisors in all 10 participating Schools, the ADVANCE Term Chairs, several Deans, Department Chairs, Junior and Senior Faculty, and the Program’s Quantitative and Qualitative Data Analysts. The selection of participants in the site visit was intended to provide a diverse cross-section of viewpoints among those who engage with the ADVANCE Program and with policy and practice related to the recruitment, retention, and advancement of women and men faculty in STEM and non-STEM disciplines.

The roles, gender, and numbers of participants in the interviews and focus group meetings were as follows:

	Women	Men
ADVANCE Program ²	3	1
Equity Advisors	8	5
Term Chairs	2	0
Faculty		
Newly hired	5	0
Newly tenured	3	0
Senior	12	1
Central Administration ³	1	2
Personnel Administration	3	0
Deans	3	1
Chairs	<u>1</u>	<u>5</u>
Total	41	15

² Includes faculty involved in data analysis

³ Administrative ranks above Dean

An initial decision was taken to focus limited on-site time to talk with newly hired, newly tenured and senior women faculty for assessment of the ADVANCE Program's specific aims, although it is recognized that an ideal methodology would have included focus groups with men faculty as well. Interviews with 15 men faculty and administrators were included in the site visit (about one-quarter of participants), and many of the ADVANCE Program's reports, listed in Appendix A, also included men faculty points of view.

Interviews and focus group meetings followed a semi-structured protocol and were tape recorded with permission as a mnemonic device for the evaluator (tapes were not transcribed). The external evaluator also recorded the conversations with verbatim notes. Individual interviews were approximately 60 minutes in length and focus group meetings were approximately 75 to 90 minutes in duration. Content analysis methods were used to identify themes and sub-themes that reflect upon the specific aims of the ADVANCE program, and/or suggest additional issues, questions or recommendations.

The external evaluator also had several opportunities for conference calls with the Program Director and Coordinator to provide additional information and clarify questions. These conference calls yielded updates regarding on-going developments pertaining to ADVANCE (e.g., new reports based upon on-going analysis of data).

The Findings section that follows draws upon the data sources described above to assess the outcomes of the ADVANCE program with respect to the program's four specific aims.

CONFIDENTIALITY

No individual names or unit names are identified in the following sections of the report, unless specific unit names (i.e., Schools or Departments) were identified in reports provided by the UCI ADVANCE Program Office. Any information provided to the external evaluator in interviews or focus group meetings is reported in aggregate or generic form only. This format is intended to maintain confidentiality of information provided by participants in the site visit process.

II. Findings

Specific Aim 1. Appoint **Equity Advisors** to provide School-based assistance in recruitment and retention, and **Term Chairs** to promote the goals of ADVANCE.

UCI appointed one or two senior faculty members in each of its STEM Schools (and ultimately in all Schools) to serve in the capacity of Equity Advisor, charged with overseeing their Schools' recruitment processes and practices, developing School-based programs to strengthen gender equity, becoming involved in faculty mentoring, and meeting as a group to develop best practices. The Equity Advisor concept was modeled initially on the role developed by the Associate Dean for Faculty Development in the School of Medicine, who had been successful in increasing the number of women faculty in the tenure track and among all faculty ranks. The original idea was based on the notion that Equity Advisors would be instrumental in tailoring equity practices to suit the needs of individual Schools, focusing

strategies on the local situation. This project would place responsibility in the hands of individuals, rather than “faceless regulatory or programmatic measures” (UCI NSF proposal, page 6).

Initially, Equity Advisors were conceptualized as a resource for UCI’s Search Committees, supporting them in the search process. Over time, however, the Equity Advisors have become a key component in a new way to go about searching for faculty and mentoring junior faculty at UCI, in other words, a changed environment for gender equity. Equity Advisors not only meet with Search Committees, but also organize educational/awareness workshops for Search Committee members and Department Chairs, distribute literature and best practice guidelines for searches, review and approve new search and recruitment forms, offer support in recruitment of candidates (e.g., provide web links to resources, meet with candidates if requested, advise and troubleshoot issues for junior and senior faculty [such as retention issues], serve as confidential consultation hubs for sensitive personnel matters, work with Deans on salary equity reviews in some cases, and help to make ADVANCE a concrete reality in every School, so that there is an actual Program and an interchange at the local level. Not all of these activities take place in every School, and contingent upon policy, practices may vary by School.

The Equity Advisor concept has evolved significantly over the past seven years, as the individuals appointed to the roles have gained experience, interacted with one another, and shared what they have learned with other institutional actors. While the Equity Advisor role has retained its decentralized character in many respects, it is important to note that certain aspects of the role that have been institutionalized and diffused across the campus.

UCI planned from the beginning to bring together the Equity Advisors on a regular basis to share experiences and thereby form a “learning organization”. Several forms of knowledge sharing have included 1) regular annual orientation sessions for new and continuing Equity Advisors (often involving presentations by external experts in the field of gender equity), 2) monthly meetings of the ADVANCE Program Advisory Committee (APAC, including the Principle Investigators, Director, Coordinator, and Equity Advisors), 3) Annual Reports from each Equity Advisor responding to standard fields of inquiry, and 4) an analysis and collective summary of the individual Annual Reports by Professor Judith Stepan-Norris, with input from the APAC (see *Building a Learning Organization based on Gender Equity*, Professor Douglas Haynes, 2008, page 1). Over time, these activities have led to changes in the structure of the ADVANCE Program and the Equity Advisor role.

The Equity Advisor role in recruitment and retention is discussed in greater detail under Specific Aims 3 and 4, respectively. In this section of the report, the focus is upon the general concept of the Equity Advisor, as viewed from the perspective of participants in the site visit.

SITE VISIT FINDINGS PERTAINING TO THE ROLE OF EQUITY ADVISORS

The external evaluation site visit found that Equity Advisors are widely viewed as valued resources who contribute to gender equity and the diversity of applicant pools (although this view is not universal). Participants in site visit interviews and focus groups expressed the opinion that the Equity Advisor concept and role represents one of the UCI ADVANCE Program’s strengths; some observers believe the

concept has become a model for emulation by other universities. Participants in the site visit indicated that the Equity Advisor Program has resulted in improvements in the faculty recruitment process, leading to larger and more diverse faculty recruitment pools. In some STEM fields, UCI now may receive scores to hundreds of applications, including those from international applicants (partly as a result of on-line recruiting tools).

According to participants in the site visit, discussions of diversity in faculty searches have been re-incorporated into the conversation in many academic Departments, largely as a result of the Equity Advisors' practices. After the passage of Proposition 209 in California, some Deans and Chairs reportedly were unclear regarding the legality of diversity goals in faculty recruiting. However, the ADVANCE Program and the Equity Advisors provided a way forward by emphasizing the importance of eliminating biases in recruiting (which is a legal mandate in all contexts), the benefits of the shared goal of faculty excellence, and raising awareness of UCI's relative position with respect to numbers and percentages of women faculty available for recruitment in various fields. UCI has incorporated equity and diversity into recruitment conversations by examining the availability of talent at the national (and international) level(s), and making a concerted effort to have searches tap into these wider pools. Thus, the ADVANCE Program has established multiple contexts for discussions of diversity in faculty recruiting, and expanded the frameworks in which the subjects of equity and diversity in recruitment are considered and evaluated.

Further, the Equity Advisors have helped to reduce or eliminate potential difficulties in the hiring process that the Academic Personnel Office had to cope with previously (e.g., filling vacancies after interviewing only one or a few candidates, or mixing junior and senior candidates in the same pool). Equity Advisors now help to ameliorate such issues, both by alerting their Deans, who take action to stop premature closure of searches, and by working with the Vice Provost for Academic Personnel to ensure that there are separate search pools for junior and senior candidates. They also have helped to modulate behavioral patterns on Search Committees. For example, what may be considered "outlier" members of Search Committees who at one time may have used illegal questions during interviews to intimidate and/or eliminate women candidates (e.g., by asking questions about intent to have children) either have been set straight about the law, silenced by peer pressure, or eliminated from Search Committees.

In Schools where they are most effective, the Equity Advisors promote the goals of ADVANCE by implementing new hiring procedures in concert with the Deans (see also Specific Aim #3). In some Schools, Equity Advisors have intervened in search procedures when these were operating outside UCI guidelines for gender equity. In one case, a Dean described a search in which a candidate who did not fit the job description was being recommended for hire from a homogeneous short list. An Equity Advisor brought this to the attention of the Dean, who then relied upon ADVANCE-based policy guidelines to raise questions about the search and the candidate. According to this Dean, ADVANCE policies and the Equity Advisors' actions have "put women on the map" at UCI in ways that they were not beforehand.

According to faculty participants in the site visit, Equity Advisors have acted in concert with institutional changes in the hiring process, bringing gender equity to a level of consciousness that was unprecedented in the past. There are cases in which unacceptable gender distributions have been rejected by an Equity Advisor, and actions such as these have caused Schools with lower numbers of women faculty to rethink what they are doing. There are other indications that the Equity Advisor role is in the process of further institutionalization on UCI's campus, including more frequent meetings between Equity Advisors and their respective Dean's Councils, and staying for the entire meeting of the Dean's Council on more occasions (see Stepan-Norris' *2006/07 Equity Advisor Report Analysis*).

As a result of such developments, the Equity Advisors are viewed by many observers as a new resource on campus. At their best, Equity Advisors bring additional competency to Search Committees, sharing their knowledge and enabling Search Committees to operate more effectively. They also are advocates to the faculty for important policies (e.g., work-life balance policies), and can refer faculty to the Academic Personnel Office if they have questions or issues that require attention. Further, the Equity Advisors provide additional support to Academic Personnel through a "train the trainer" approach. Academic Personnel, or others knowledgeable regarding relevant issues (e.g., experts at conferences), can impart their knowledge and skills to the Equity Advisors, who in turn can help to disseminate this information to a larger number of faculty across the campus. They also help faculty understand what resources are available, and where to go to get them.

Not everyone involved in the site visit agreed that Equity Advisors were responsible for the diversity of applicant pools, however. A small minority of participants voiced the perspective that faculty members already had decided to achieve this objective and Equity Advisors' practices only served to delay them from achieving their goal by increasing the complexity of search processes. This point of view appeared to represent the perspective that institutionalization of some practices (e.g., Equity Advisor sign-offs on forms) reflect increasing bureaucratization of the hiring process that was not welcome among some of the faculty.

EQUITY ADVISOR INVOLVEMENT IN MENTORING PROGRAMS

In addition to their role in faculty hiring, Equity Advisors also coordinate the School-based mentoring programs, so that there may be a link between ADVANCE and existing junior faculty. For the past three years, all Schools have had mentoring programs of some type in place. According to Professor Stepan-Norris' *2006/07 Equity Advisor Report Analysis*, these mentoring programs are highly variable across Schools, with little consistency in structure (e.g., points of contact, voluntary or not). Findings from the site visit suggest that individual Equity Advisors may reach out to both junior and senior women faculty, providing advice and counseling on issues ranging from promotion and tenure, to retention, to sexual harassment, or to the overall adjustment to UCI's culture and climate of intensive faculty evaluation (i.e., the step system). While most Equity Advisors report positive assessments of their mentoring programs (see Professor Judith Stepan-Norris' *2006/07 Equity Advisor Report Analysis*), there has been relatively less collective investment in discussion and evaluation of School-based mentoring programs compared with new faculty hiring efforts, and thus in the past there was not as much campus-wide

diffusion of mentoring “best practices”. UCI’s ADVANCE Program now is aware of the need to focus more attention on mentoring, and has initiated several activities that will begin the process of institutionalizing Equity Advisor mentoring practices. This subject will be discussed in greater detail under Specific Aim 4.

CONCERNS EXPRESSED REGARDING EQUITY ADVISORS

Some Chairs voiced concerns regarding Equity Advisor practices. One concern was that Equity Advisors may be meeting with Search Committees too late in the search process (i.e., after the short list is developed), thereby creating otherwise needless delays in the search process. [This concern also was expressed by the Equity Advisors themselves in Professor Stepan-Norris’ *2006/07 Equity Advisor Report Analysis*.] Another concern was that it was not clear to whom the Equity Advisors report, so that issues could be voiced. Another question was raised concerning whether or not the Equity Advisors in a particular School were holding promised mentoring sessions with junior faculty. Such questions led to a discussion regarding oversight of Equity Advisors as a group, and who might have the appropriate knowledge, expertise, and information to manage such a diverse and matrix-form constituency.

In general, participants in the site visit expressed concern that the abilities of Equity Advisors varied significantly from one School to another (or among individuals), and that the ADVANCE Program may not be providing sufficient feedback to Schools on how well the Equity Advisor Program was working within each School with respect to ADVANCE goals. There may be role-related tensions between Equity Advisors and Chairs in some Schools, contingent upon the management style and practices of the Dean. Some Deans are sensitive to and aware of the subtle aspects of the Equity Advisor position and have structured the role and its interaction within their office in accordance with this understanding. Yet, in other Schools there may not be a mechanism in place to provide feedback on structural issues to anyone in authority over the Equity Advisors.

In addition, it appears that not everyone is completely comfortable with the current configuration of the Equity Advisor role. While there is fairly widespread support for the benefits that Equity Advising has brought to recruitment processes, there also is a perception that the ADVANCE Program has brought the Equity Advisor role into areas that should be the rightful province of Deans and Chairs. More specifically, concern was expressed that Equity Advisors have been drawn into faculty mentoring and salary equity reviews, and that these areas are not strictly matters of gender equity per se, but are concerns of all faculty that are best handled by the academic administrative line. Some Deans expressed the view that the Equity Advisor role, structured as it is (rotating, part time), is not well equipped to respond to the complexities of mentoring and salary equity, and some faculty who have taken on the role have felt overwhelmed by the duties associated with these aspects of the role. The perceived “additional duties” of the Equity Advisor is increasing the difficulty of recruiting faculty into the role, and generating resistance among Chairs in some Schools.

CONCERNS EXPRESSED BY THE EQUITY ADVISORS

Many Equity Advisors (certainly not all) are women at the Associate Professor rank. Women Equity Advisors represent a population that should be of interest to the ADVANCE Program with respect to their promotion to Full Professor, and the possibility of their development toward other positions in academic administration if there is mutual interest. Some participants in the site visit suggested that a number of Equity Advisors had taken administrative positions at UCI following their Equity Advisor experience, and that this process was part of the institutionalization of ADVANCE at UCI. If this is indeed the case, then the Equity Advisory role may contribute to ADVANCE objectives in ways that go beyond those envisioned in the grant proposal. Yet the role of Equity Advisor may place some individuals in a paradoxical situation that could potentially jeopardize their career development and thus work at cross-purposes to ADVANCE goals, unless careful attention is given to some of the structural issues associated with this role.

One issue expressed by some interviewees during the site visit relates to the service-oriented nature of ADVANCE activity. The Equity Advisor role requires many hours of service performed for one's colleagues, if an Equity Advisor performs the role in the full capacity that has been described in the many reports listed in Appendix A. If these service duties take time away from scholarship, then career advancement and merit salary increases could be adversely impacted. Some Equity Advisors receive a course release to balance their service duties, but not all of them have a course release. Further, the course release may not represent the equivalent of the number of hours contributed toward ADVANCE activity, depending upon the individual Equity Advisor's level of dedication to the role. Some interviewees expressed concern that the Equity Advisor service role may represent an ironic career sacrifice, a point of view echoed in Professor Monroe's interviews with UCI women faculty (*Final Report on Interview Section of the UCI ADVANCE Grant from the NSF*, Kristen Renwick Monroe, 2006).

Another issue concerns the potential for tension and/or conflict between an individual Equity Advisor and one or more senior colleagues in her Department (e.g., Chair or other Full Professors). There are times when an Equity Advisor may advocate for an ADVANCE policy in a manner that requires her to deny a colleague of higher rank a request related to a search. For example, an Equity Advisor may object to the practices of a Search Committee, and cause that Committee to alter its practices or even intervene in a search, and prevent the Committee from hiring their chosen target. Some Equity Advisors indicated that they perceived themselves to be more "lowly" than the members of the Search Committee, meaning that their interactions with these bodies could be difficult to negotiate. Such issues can be particularly sensitive if the search involves senior members of the Equity Advisor's Department. In such cases, there may be fears of retaliation at some point in the future (i.e., if the Equity Advisor becomes a candidate for promotion). Paradoxically, the potential for career disadvantage could affect mid-career women who are strongly committed to supporting gender equity on campus, clearly not a desirable result over the long term for purposes of transforming UCI's institutional culture towards more fully pronounced expressions of gender equity.

ADVANCE TERM CHAIRS

UCI's proposal to NSF included as one of its specific aims the appointment of two ADVANCE Term Chairs from among the newly recruited and existing women faculty in the STEM fields. Criteria for selection included scholarly distinction, as well as evidence of tangible commitment to issues of equity in research, teaching or service. The Term Chairs were to receive awards of \$50,000 per year for 5 years to support their scholarship; this award would represent a visible display of institutional commitment to gender equity, and highlight the types of activities that UCI intends to reward. The Term Chairs were to become active members of the ADVANCE gender equity program. Additional ADVANCE Term Chairs were to be created beyond the initial 5 year NSF grant period through private fundraising efforts at UCI.

Two ADVANCE Term Chairs were selected, including one newly recruited faculty member in mathematics and one existing faculty member in chemical oceanography. These individuals have been engaged in a variety of ADVANCE activities on the UCI campus and in their own professional associations at the national level. One served as an Equity Advisor in her School, was active in salary equity reviews and mentoring programs, and was involved in a Search Committee for an endowed Chair position; the other organized women graduate students in her Department, encouraged mentoring between junior and senior women scientists in the Department, and helped to co-organize a mentoring meeting for junior women scientists at Princeton's Institute for Advanced Studies⁴. Since the goal of this program component was to promote the Term Chairs' scholarship and establish them as role models for emulation (and not to over-extend them through service-related activity), it is reasonable that their activities with the ADVANCE Program should be limited in nature and focused upon their Schools and Departments for the most part.

In many ways, the activity of Term Chairs has been exemplary and could be leveraged for greater impact to support other Specific Aims of the ADVANCE Program (e.g., Specific Aim #4). For example, the potential of the Term Chairs for participation on Selection Committees for Distinguished Faculty positions has not been optimized (one of the two Chairs was not asked to serve on any such committees). Also, the mentoring program established by one of the Term Chairs at Princeton's Institute for Advanced Studies is an outstanding example of gender equity coupled with academic excellence, and could become a national model for other disciplines.

It is not clear that UCI has benefited to the fullest extent possible from the roles and activities of the Term Chairs *as scholars and contributors in their disciplines*. Since its inception, ADVANCE has been oriented toward recruitment of women faculty, and rather less intensively on the advancement of senior women's careers. Some participants in focus groups indicated that the ADVANCE Term Chairs

⁴ Most of the Term Chair activity on the UCI campus (if not all of it) appears to have taken place during the first five years when NSF grant funding was active. Term Chairs have been less active in ADVANCE activities at UCI during the NSF no cost extension period.

have not been as visible on campus as they might have been expected to be. If accurate, this may be due to a possible mismatch between the focus of the ADVANCE Program (recruitment of new women faculty) and the focus of the Term Chairs (mentoring in specific fields). The potential benefits of the Term Chair program are limited if there are only two such Chairs, and the focus of ADVANCE is not on advancement of senior women. The Term Chair role also may highlight the potential tension between women as outstanding scholars on the one hand, and as exemplary role models who serve the UCI campus and ADVANCE to promote the goals of gender equity on the other.

The effort to create additional ADVANCE Term Chairs through private fundraising is gradually getting underway, although private donations have not yet been directed toward gender equity at UCI. According to statements made during the site visit, UCI's development efforts for ADVANCE slowed somewhat when the no cost extension period started, due in part to staffing constraints. Some interviewees offered the view that gender equity did not seem to be a high priority for the UCI Development staff, however no Development staff were included in the site visit so this view could not be verified. Nevertheless, the ADVANCE Director has been included in Development planning on an on-going basis, and plans are in place to go forward with a gender equity theme for the capital campaign, which will enter its public phase in the coming year.

Specific Aim 2) The development and maintenance of **databases of gender equity indicators**. To identify the parameters related to gender equity, a quantitative and qualitative database was to be developed and analyzed by faculty at UCI and their research assistants, using a wide range of methods and metrics, including: recruitment data, salary, rank, awards, start-up funds, facilities, spousal employment, retention rates (and deals), other special deals, committee workload, types of courses taught (prestige versus services), on-campus awards (nominated and achieved), accelerated and off-step data, grant dollars, access to housing, access to childcare, difference in family circumstances (married, children, and spousal job), and time to tenure. Subjective measures also were to include perceptions of support, fairness, and discrimination. An exit-interview program was to be developed, to uncover quality of work/life issues. An audit of letters of offer and hiring conditions was to be conducted, as well as an audit of teaching and advising assignments and the number of students and courses, to identify “hidden biases”. These issues were to be monitored for a 10 year period, and publicized using written, and internet media, brochures and yearly conferences.

ISSUES RELATED TO THE UCI ADVANCE DATABASE

The ADVANCE Program proposal included the collection and analysis of both qualitative and quantitative data by academically-based analysts (often faculty members and their associates), and numerous studies based upon data collected under the auspices of the NSF ADVANCE grant have been conducted. The complete set of data representing the UCI ADVANCE database is voluminous and exists in varied forms. Appendix A is an effort to catalogue some of the most significant efforts by UCI to document its database reporting and analysis efforts over the past seven years. Apart from the NSF indicator data (2001-2008), which exists as a discrete data set, much of the UCI ADVANCE database is embedded within separate reports, which also contain analysis, discussion, and conclusions, and thus the data itself are somewhat difficult to extract and manipulate for other purposes.

No attempt will be made in this section of the external evaluation to discuss or summarize the content or conclusions of the various database analyses. Some of the significant findings are referenced in other sections of this report. The purpose of this section is to comment on the database itself, and some of the issues involved in the development, representation, and distribution of the data.

Before attending to the specifics of the database, some preliminary comments are necessary. First, it should be noted that the National Science Foundation identified the types of data that should be collected by each ADVANCE Program (i.e., the NSF ADVANCE indicators), but the specific parameters for data collection were left open to be determined by each campus. This may explain in part the variability in formats, methodologies and variables within the UCI ADVANCE database that is discussed below. Second, the UCI ADVANCE Proposal set forth a data model that relied upon academic colleagues to gather, assess, and report upon indicators of institutional transformation toward gender equity. This faculty-oriented approach to the ADVANCE database is in keeping with the larger structures and philosophies of the UCI ADVANCE program, and thus it is entirely reasonable that such a data model would be attempted. It is the assessment of the external evaluator, however, that this data model has not been entirely successful with respect to the intended deliverables, due to a number of factors that

are discussed in this report. Institutional transformation must rely, at least in part, upon institutional data gathering and analysis capabilities, perhaps one of the lessons learned from the ADVANCE experience. Third, it is noted that the UCI ADVANCE Program appears to have experienced a relatively high degree of personnel turnover, both with respect to its leadership and among its data analysts, and it also has experienced persistent understaffing (only one staff member). No single person was appointed to oversee all of the data analysis responsibilities, or to coordinate such efforts, other than the Director. From 2001 to 2006, there were two different Directors, neither of whom was a regular rank UCI faculty member, and each of whom was hired from outside UCI, and so unfamiliar with the campus and its faculty. Only recently has UCI appointed a regular rank UCI faculty member as the third Director of ADVANCE (in 2006). In addition, the resources on campus for institutional research were not experienced with social science research methodologies, and -- since the UCI ADVANCE Program was one of the ADVANCE Program's first grantees -- there were few data models to emulate. Each of these factors has contributed to the situation described in this section of the report.

Scope and Consistency: A close examination of the numerous reports constituting the database suggests that UCI ADVANCE has made a monumental effort to address the factors identified in Specific Aim 2. Of all the factors listed under Specific Aim 2, the only ones that do not appear to have been the subject of a specific study are grant dollars (it was not clear from the NSF proposal whether the intent was to examine intra-mural or extra-mural grant dollars), and accelerated step data (step level at hire has been the subject of intensive scrutiny, and promotion to Step VI and above also have been the subject of a separate report⁵). All other factors have been studied for evidence of gender bias, either by qualitative or quantitative methods, over some portion of the grant period, and reports have been written discussing results of the studies (listed in Appendix A).

While some of the factors have been examined intensively and systematically, others have been studied only for certain portions of the grant period, and still other factors have been studied only minimally. For example, UCI ADVANCE has conducted annual analyses of faculty recruitment by gender and rank, and has consistently examined the role and influence of Equity Advisor practices on the recruitment process, as described in the previous section. These factors have been an intensive focus of investigation throughout the grant period. Other factors related to recruitment, such as start-up packages, and interviews with job candidates, have been studied somewhat less intensively, but nevertheless have been the subject of consistent scrutiny. Start-up packages were examined over three consecutive years (2004-2007), and interviews with job candidates were examined over two years (2005-2007). The faculty survey that was to provide a window into culture and climate was conducted twice, once in 2002 and once in 2004; a third survey wave will be conducted in 2008. Yet, only one report on interviews with women faculty to identify gender biases was released in October, 2006 (covering the entire 2002-2006 time frame). Likewise, there has been only one systematic study of faculty who left UCI (conducted in 2004 and covering the period 1999 to 2003). Also only one study of

⁵ (See *Analysis of Gender Differences in 2006 Faculty Start-Up Packages at UCI* by Judith Stepan-Norris, 2007, and *Distinguished Intellectual Leaders: Incumbents of Endowed Chairs* by Douglas Haynes, 2008).

mentoring that went beyond Equity Advisors' self-reports on their own success with mentoring programs was released in 2008, focusing on only one School (although the survey developed by this School will be adopted by ADVANCE as the approach for studying mentoring on a campus-wide basis in 2008).

The various studies and reports have not always been internally coherent or consistent among themselves with respect to their formats of representation, definitions, methodologies, or variables examined from year to year. Reports that review the same indicators do not define variables or categorize data in the same way. For example, Professor Stepan-Norris' *Equity Advisor Report Analysis* examines women faculty hires by School, grouped into two broad categories: Science and Engineering Schools (including Biological Sciences, Engineering, Information Sciences and Computing, and Physical Sciences), and Other (which includes all of the other Schools at UCI, with the Arts included as well). The UCI NSF Indicator data, on the other hand, includes a different set of Schools in its definitions of STEM (all of the Schools Professor Stepan-Norris examines, *minus* the Arts, yet *adding* the Health Sciences, which Stepan-Norris does not include). In data provided to supplement the NSF indicator data, some reports provide a statistical analyses, while in others there are no statistical analyses available, only raw numbers (e.g., for women above Step VI). Some reports compare STEM to non-STEM Schools, while others do not (e.g., for intellectual leaders). Some reports provide full back-up data, while in other reports back-up data for some Departments is missing or inconsistent (e.g., for voluntary, non-retirement attrition data).

This pattern of data collection and reporting does not fulfill the grant proposal's intent to study the entire suite of factors for a 10 year period (assuming that the 10 years began in 2001, at the start of the NSF grant). The pattern also suggests a justified emphasis on certain aspects of gender equity (e.g., recruitment), but an under-emphasis on other aspects of gender equity (e.g., retention and advancement).

Context: To determine whether or not the UCI ADVANCE Program has achieved its intended goal of campus transformation toward gender equity, it is necessary to establish a context in which to evaluate the results of recruitment, retention and advancement of women in STEM fields. This is necessary, since the national availability of women is markedly different across fields, and also varies over time. Yet, contextual benchmarks are not always in evidence in the database. The clearest example is found in the NSF indicator data. While there is a full report of numerical data on the NSF indicators, there is no contextual reference that would establish the extent to which the various Schools have improved the representation of women with respect to national availability of women in their respective fields, or relative to the period preceding the ADVANCE Program at UCI.

A chart entitled "Women as a Percent of Newly Hired UCI Faculty by School during 1995-2001, 2002-2008, and Availability Data" does not provide sufficient context for interpretation of the data provided, for two reasons. First, this chart does not indicate that Proposition 209 was passed in 1996 in California, and could have had an impact on hiring of women faculty during the 1995-2001 period. Indeed, this argument was made in the grant proposal; hiring of women at UCI could have declined after the passage

of Prop. 209, so a more rigorous argument would be made if ADVANCE could show that its hiring data equaled or surpassed that of pre-Prop. 209 years. Second, the national availability data shown in the chart (assumed to be current) cannot be compared to the earlier period, when national availability may have been quite different. Thus, a full set of contextual data would show the pre-Proposition 209 hiring data (as shown in the NSF proposal), as well as the national availability data for all three hiring periods (pre-Proposition 209, post-Proposition 209, and ADVANCE).

Collaboration: It is not clear whether the various faculty members involved in gathering and analyzing the data were collaborating with one another in designing their studies. The studies often do not refer to one another, or the impact that various aspects of the program might be having on other aspects, even though there may be significant interaction influences (e.g., retribution or discrimination avoidance, mentioned by a number of interviewees; this could influence climate and retention). Interview data gathered during the site visit suggests that some faculty analysts were reluctant to share findings until papers were published (possibly, reluctance to share also was due to reasons of confidentiality), leading to frustration among others who needed to know the results. The annual *Equity Advisor Annual Report Analysis* by Professor Judith Stepan-Norris has been the exception to this pattern. Also, there is some evidence in the UCI database reports themselves that Departments were not fully responsive to requests for information that was needed to complete data collection, and in some cases simply did not respond to such requests (see *Report on the Interview Project with UCI job Candidates, 2005-2007*, Judith Stepan-Norris, 2008, page 2; *Final ADVANCE Report/Summary*, Matt Huffman, 2006, page 8). This tendency also may be the reason why data is missing in some of the databases (e.g., voluntary, non-retirement attrition data). Although this is not too surprising, given the foci of Department Chairs' attention and high turnover rates, the external evaluator could find very few reports that explicitly discussed this data collection problem *as a gender equity issue per se* (i.e., it is discussed explicitly in Matt Huffman's October 2006 reported entitled *Final ADVANCE Report/Summary*, page 8)⁶.

Greater collaboration among faculty members conducting different parts of the study could lead to insights into the dynamics of institutional transformation on the UCI campus, particularly if this subject is discussed openly. For example, results from Monroe's interview study may provide a context for interpreting some of the significant findings from the faculty surveys regarding the climate for work-life balance, the climate issues reported by Stepan-Norris in her most recent report from the Equity Advisors, and/or the attrition data.

Comprehensiveness: An issue related to the one mentioned above is that few efforts have been made to comprehensively or globally analyze all of the databases thoroughly to address the Specific Aims of the NSF Proposal. The majority of reports representing the database take a particular methodological, substantive, or time delimited approach to gender equity (e.g., qualitative interviews, culture and

⁶ Resistance to data collection efforts appears to be greatest in Departments that have the smallest numbers of women faculty, and this resistance is not based on any objective critique of the methodology of the study or other rational argument.

climate, exit interviews, two or three year time scope), but few endeavor to holistically or dynamically integrate various dimensions of gender equity into a comprehensive account of the subject for the UCI campus over a long period of time.

Commendable efforts towards more holistic comprehension have appeared lately; for example, the most recent reports by Professor Haynes (entitled *Building a Learning Organization Based on Gender Equity*) and by Professor Judith Stepan-Norris (entitled *2006/07 ADVANCE Equity Advisor Report Analysis*) have moved in the direction of a more comprehensive analysis directed at the Specific Aims. Yet, even these reports do not thoroughly and critically address Specific Aim 4 related to the advancement of women, which will be discussed below.

Access: A key issue concerns the lack of correspondence between data gathered at the level of the Schools (i.e., by Equity Advisors) and data gathered by UCI Administration. These two sets of data do not match (as acknowledged in Professor Stepan-Norris' *2006/07 Equity Advisor Report Analysis*), due to a number of factors. For example, an FTE position which is allocated by UCI Administration in one year may not be filled at the School level in that year, but may be held over for a search in a second year; or the line may be filled, but the new hire's arrival on campus may be delayed until a later year; or a new hire may be moved from one FTE position to another by a School (or other anomalies).

For such reasons, it has been necessary to conduct a special research operation to match the actual new hires in specific positions in a School with the database maintained by the UCI Administration. This research operation involves two steps: 1) obtaining the actual new hire data from the Schools; and 2) matching it with the Administration data base.

The UCI ADVANCE Office has been assigned to perform Step 1, and this has proved to be quite cumbersome and time consuming. Further, UCI's Institutional Review Board required that the faculty assigned to conduct quantitative analysis for ADVANCE could not perform Step 2 themselves, but had to request that UCI Administration conduct this step for them (due to confidentiality concerns). Over a long period of time, it has become apparent that there are still many gaps between the data sets obtained from the Schools and the Administration (this is apparent in several of the reports), and this has inhibited quantitative analysis of the database. This bifurcated approach to data gathering and analysis does not appear to be particularly efficient or effective.

Dissemination: Some participants in the site visit expressed concern that there were perceptions on campus that ADVANCE reports were not readily available or were not distributed widely across campus in the forms mentioned in the grant proposal, even though the ADVANCE Program made presentations at national conferences. In particular, some participants suggested that feedback from data analysis regarding the ADVANCE Program's effectiveness in meeting its stated goals was not being shared openly with the campus community, and that Schools and Departments are not certain regarding the effectiveness of their approaches in achieving the aims of the Program. These issues were reported to be more contentious in the past. The current Director's presence on many committees and his open

communication style has been effective in building trust within the campus community. Posting ADVANCE reports on the Program's website also has been a responsive move.

Specific Aim 3) An increase in the **recruitment of women** so as to substantially increase the presence of tenure-track women faculty in the sciences. Strategies to be used included: changes in advertising, in the composition and practices of Search Committees, in the process for selection of candidates, and in practices related to interactions with candidates. Measures were designed to improve awareness of gender equity issues, including directed readings, Search Committee orientation sessions with Equity Advisors, the Dean and Department Chair, and equity workshops for Executives, Deans, and Chairs.

INCREASES IN THE RECRUITMENT AND REPRESENTATION OF WOMEN IN STEM FIELDS

Based upon a review of the NSF indicator data (which includes nine STEM Schools, with the new College of Health Sciences added), UCI has increased the number of women faculty recruited in the STEM fields, and on a campus-wide basis, and has increased the number of women represented at all ranks (including in the STEM fields). On a campus-wide basis, the percentage of women faculty has increased from 24.6% in 2001-02 to 30.4% in 2007-08, while in the STEM fields the percentage has increased from 20.6% in 2001-02 to 26% in 2007-08. Across the campus, women have increased at all ranks: Assistant (31.1% to 43%); Associate (34.2% to 37.3%) and Full (18.5% to 22.1%). Women in the STEM fields also have increased across the spectrum: Assistant (24.8% to 37.6%) Associate (30.6% to 31.9%); Full (15.9% to 18.7%).

Focusing on the four Science and Engineering Schools that are highlighted in Professor Stepan-Norris' Reports (i.e., Biological Sciences, Engineering, Information and Computer Science, and Physical Science), we find that while results have been uneven, the majority have succeeded in increasing the representation of women⁷:

Biological Sciences: Women faculty increased from 16.3% in 2001-02 to 26.0% in 2007-08; increases may be found in the first two ranks – Assistants (7.1% to 47.8%) and Associates (16.7% to 29.2%). Full Professors dropped from 18.5% in 2001-02 to 15.1% in 2007-08.

Engineering: Women faculty decreased from 11.3% in 2001-02 to 8.3% in 2007-08. The decreases are concentrated in the first two ranks: Assistants (15.8% to 13%) and Associates (29.4% to 6.7%). Full Professors increased from 2.3% in 2001-02 to 6.9% in 2007-08.

⁷ Reflecting UCI reporting formats, this section of the report represents faculty recruitment in two ways: first within STEM overall, and then in four selected Science and Engineering fields. The remainder of the report thus will include the use of *these two terms*: **STEM**, meaning the eight Schools included in UCI's Proposal to the NSF, plus the new College of Health Sciences, and **S&E**, meaning the four Science and Engineering Schools highlighted in Professor Stepan-Norris' Reports.

Information and Computer Science: Women faculty increased from 17.9% in 2001-02 to 24.2% in 2007-08. These increases are found at all ranks: Assistants (33.3% to 35%); Associates (15.4 to 18.2%); Full (11.8 to 19.4%).

Physical Science: Women faculty increased overall from 10% in 2001-02 to 17.2% in 2007-08. The increases are concentrated at the lower and upper ranks: Assistants (9.1% to 36.7%) and Full (6.8% to 10.7%). Associate Professors declined from 28.6% to 15%).

According to Professor Stepan-Norris' *2006/07 Equity Advisor Report Analysis*, the most significant increases in the recruitment of women faculty on a year-to-year basis in these four S&E Schools took place during the middle years of the NSF grant (i.e., 2002-2004), and reached a plateau between 2005-2007, with results for individual Schools fluctuating markedly over the entire period of the grant. Physical Sciences has continued a more or less upward trend in recruitment (9% to 36%); Biological Sciences and Information and Computing Sciences have fluctuated considerably, yet both have ended the period with generally higher levels of recruitment than they began (Biological Sciences went from 50% to 100% of one hire in 2006-07, with much fluctuation in between; ICS from 23% to no hires at all in the last year, either male or female, but 50% the previous year). Engineering showed the least progress, with 9% women hires to begin with, a great deal of fluctuation in the middle years, and no women hired in the final year, compared to six men in 2006-07. Information and Computer Science, and Engineering, both have lower availability of women in faculty recruitment pools, and share these pools to a certain extent.

The plateau phenomenon of the more recent years may be related to the decreasing number of hires generally across campus (the result of economic pressure)⁸. It has been demonstrated empirically that more women are hired when FTE allocations are bundled in clusters of two to three positions, and/or when Deans have flexibility to authorize more than one hire in a given search⁹. Reductions in the number of FTEs allocated may therefore tend to reduce the number of women hired (although this latter hypothesis has not been validated empirically).

⁸ There were 62 hires at UCI in 2006-07, compared with 98 in 2003-04 (see Stepan-Norris, 2006-07).

⁹ There appears to be a curvilinear relationship between the number of positions allocated to a Department and the outcomes for gender equity, with the best outcomes resulting when two to four positions are allocated; see Judith Stepan-Norris report entitled *2006/2007 Equity Advisor Report Analysis*, page 13. If this relationship holds up under further analysis, it suggests that fewer women would be hired in recessionary environments, as fewer FTEs would be allocated overall, and this probably would mean that individual Departments would receive fewer FTEs as well, meaning fewer women hired in Departments that have fewer existing women, and with lower national availability. A priority should be placed on empirical demonstration of a mechanism for this relationship.

FACTORS INFLUENCING RECRUITMENT AND REPRESENTATION OF WOMEN FACULTY

While most participants in the site visit agreed that Equity Advisor practices have played an important role in creating a more equitable environment for recruitment of women faculty at UCI, these practices in and of themselves are not sufficient to achieve the institutional transformation sought by the ADVANCE Program. This is apparent from Professor Stepan-Norris' 2006-07 Report, which shows that although Equity Advisor best practices have diffused widely across campus, these practices in themselves have not been sufficient to increase the representation of women in all of the S&E fields, or at all ranks.

Professor Stepan-Norris' *2006/07 Equity Advisor Report Analysis* found only one Equity Advisor practice that correlated with improvements in gender equity outcomes for recruitment, and that was the sharing of the AP-80c with the Equity Advisor. The AP-80c is a search procedure form that provides a rank ordered list of candidates, a profile of the candidate who has been offered the position, a rationale for his/her selection, the rank and step as well as salary. Equity Advisors do not need to sign-off on this form. Of course, correlation does not mean causation. It has been suggested that sending the AP-80c to the Equity Advisor reflects a heightened level of accountability for gender equity outcomes, however, the matter requires further study to determine the mechanism(s) underlying the phenomenon.

According to participants in the site visit, other key factors beyond the Equity Advisor practices are in play. In fields where national availability of women candidates has expanded, Departments with supportive and flexible Deans have responded favorably to ADVANCE, and interactions among Equity Advisors, Deans, and Search Committees have increased the number of women faculty hired over time. Search Committees at UCI are seeking top candidates, and where women are readily available in national or international pools, the chances that the top candidates will be women is higher. In other cases (i.e., where pools do not have large numbers of women), the recruiting process is more difficult. Some Departments have not yet developed ways or means to search explicitly for women (nor is it clear that all Departments are willing or able to do this, especially if the Dean has not been enthusiastic). Venues for recruitment in the sciences appear to be fairly standardized (e.g., *Science*, *Nature*, national association venues). At this point, it is not clear that UCI has institutionalized mechanisms for advertising or recruiting in graduate student or post-doctoral venues where it would be necessary to search if more specialized recruiting were to be achieved (i.e., in smaller pools where the number of women is limited. Some Equity Advisors have reported positive outcomes with the UC Postdoctoral Fellowship Program, in which participation led to the hiring of women faculty; see Professor Judith Stepan-Norris' *2006/07 Equity Advisor Report Analysis*, page 18).

One factor that is likely to interact with the ADVANCE Program is resource availability for hiring generally. Not only are women more likely to be hired if more than one full-time equivalent position is allocated to a Department, but a Department also may be more likely to hire a woman if the Dean is able to "double" or otherwise increase the number of positions available in a given search, from one position initially allocated to two or more, based on the number of excellent candidates identified in a search (with one of the excellence candidates being a woman). One Dean described the way in which

Search Committees in his/her School often identified more than one finalist, with one being a woman, and requested two positions in order to hire both. Although the Dean was aware that the Departments might be “gaming the system” to a certain extent, if s/he agreed that the candidates were excellent, and s/he had the resources available, two hires would be authorized. If this pattern is more widespread (and the quantitative data analysis suggests that resource availability does make a difference), the ADVANCE Program is having an influence in shifting hiring patterns to encourage or facilitate hiring of women when the Dean is encouraging such patterns, and there are sufficient numbers of women available in national pools. If any one of these three factors is not present, however, the pattern may be more difficult to sustain (i.e., encouraging and responsive Dean, national pool, available resources). The variable patterns in recruitment and retention of women faculty in different STEM fields should be described and explained with these key factors in mind. The three factors also interact with each other; for example, a more responsive Dean may be able to garner more resources than one who is not so responsive.

According to Equity Advisors interviewed during the site visit, some Search Committees still are narrowly focused on hiring in very specific subfields, where eligible candidates would be available from limited and specialized sources. In such cases, it was not feasible to argue for a woman candidate if one is not available from these sources. However, the Equity Advisors pointed out that searches could be defined more broadly if Deans had greater budgetary flexibility (and policy buy-in) to allow Search Committees some scope in hiring practices; that is, the Search Committee could present more than one candidate -- one in the narrower area of the subfield, and another equally excellent but not so narrowly focused candidate (the second one being a woman). This may have been one of the processes that led to increases in the hiring of women faculty in some Schools (e.g., Physical Sciences). More recent recessionary environments may have pressured Schools to limit Search Committees to single hires, and pressed them toward the narrower standard (i.e., more likely to be men faculty), or another factor to consider may be that recent searches have not always been successful (i.e., fewer faculty hired overall).

NEW RECRUITMENT POLICIES AND PROCEDURES

In addition to the Equity Advisors’ role in education/awareness interaction with Search Committees, Chairs, and Deans, and their development and dissemination of search and hiring “best practices” (described under Specific Aim 1), the ADVANCE Program has developed new policies and procedures aimed at improving gender equity in the search and recruitment process. Specifically, beginning in 2003-04, the Equity Advisors were given signature authority on the Search Activity Statement (AP-80a), which units must provide before beginning a search. This form provides information about the composition of the Search Committee, the language for the posting, and venues and duration for advertisement. Through this form, the Equity Advisor is able to ensure that the Search Committee is implementing best practices as these have been disseminated in educational sessions. In 2005-06, the Interim Search Activity Statement (AP-80b) was modified to permit Equity Advisors to review the short list of candidates before they are invited to campus for visits, together with information about the recruitment pool and national availability. The Equity Advisor may ask questions of the Search Committee and/or interact with the Dean on the basis of this information, and must sign-off on the form

before the search may proceed (see Professor Haynes' Report entitled *Building a Learning Organization Based on Gender Equity*, 2008). In 2007-08, the AP-80a and AP-80b were revised again to request that Search Committees proactively address what steps they were taking to generate a diverse applicant pool, and to retrospectively reflect upon how effective these steps had been. The ADVANCE Program has created several documents that support the education/awareness process for new Equity Advisors and Search Committees, including one entitled *Effective Practices for a Diverse Applicant Pool*.

The Program also is considering the possibility of changes to the final search transmittal form (AP-80c), which Equity Advisors currently review but are not required to sign-off on. As mentioned previously, this form includes a rank ordered list of candidates, a profile of the candidate who was offered the position, a rationale for the choice, their rank and step as well as salary. Since these latter details may change as a result of negotiations between the candidate and the unit, Equity Advisors may not have accurate information regarding final appointments. For these reasons, ADVANCE will consult with Academic Personnel regarding standardization of reporting to Equity Advisors at the final stages of the search.

Equity Advisors participating in the site visit agreed that the revisions in the search procedures gave them some "clout" in the recruitment process, and there were numerous examples provided of instances in which Equity Advisors intervened in searches and negotiated changes in search plans and results to expand hiring pools. Equity Advisors tended to agree that the AP-80b was the most effective policy tool for intervention in a search, as this is the point at which the Search Committee is attempting to bring specific candidates on campus to interview, and the Search Committee is most anxious to act quickly. The Equity Advisor is able to make data-driven arguments about the adequacy of recruitment pools based on ADVANCE-grounded information, however it is often up to the Dean to provide support to the Equity Advisor for expanding a pool of short listed candidates. Further, Equity Advisors noted that Search Committees may pressure them for permission to proceed with interviewing top men candidates while they work on expanding the pool, which in the end can lead to poor results (i.e., top men candidates may not accept an offer, while top women candidates have accepted offers elsewhere by the time they receive an invitation). Such entrenched patterns may require Dean-level interventions.

These new policies require that Departments are held accountable for their hiring practices and results with respect to gender equity. Thoughtful explanations must be provided when candidate pools do not match national availability for women. If women apply for a position and are not interviewed, or if a short-listed candidate is not hired, it is no longer sufficient to simply write "not qualified" or "not competitive". Evidence-based explanations must be provided. Such institutional changes gradually are influencing shifts in the hiring practices of some Schools and Departments, resulting in expanded hiring pools, although the changes are slow to come in Departments where there are few women faculty.

Generally speaking, Chairs and faculty in STEM disciplines agreed that new hiring policies have influenced the search process and Search Committee practices. Most Chairs and faculty agreed that interaction with Equity Advisors has raised the awareness of Search Committee members regarding sources and forms of unconscious bias and changed faculty thinking about searches in general. The

scrutiny of search practices has made Search Committees more mindful of their actions with respect to the formation of candidate pools and interactions with candidates (e.g., reminding members what to do and not to do is helpful). While Search Committee patterns of practice are admittedly difficult to sway, there is evidence that change is in progress within some Schools. Initial short lists still may include only men in some cases (e.g., the biases of men and women reviewers meant that qualified women candidates were not recognized on the first pass, or women did not readily turn up during open searches). But many Search Committees now re-think their criteria, and put additional effort into more rigorous search and screening processes that yield equally qualified women candidates who may have been passed over or not identified previously. Because ADVANCE has “put the subject of equity on the table,” such additional efforts have become justified and necessary.

However, not all Chairs or faculty agreed that new policies or Equity Advisor involvement actually changed the candidate pool itself. A minority of Chairs and faculty claimed that Search Committees themselves were proactively forming large, diverse pools of candidates without help from ADVANCE, and complained that new search policies were a hindrance to the speedy execution of search procedures. Some interviewees believed that increasing formalization of search procedures brought about through adoption of new forms, plus interactions with Equity Advisors, made searches take longer, especially since these procedures required that Equity Advisors be available to input data during the search process, and if they were not present, there could be delays which might jeopardize a search. Some Schools had addressed this latter issue by teaming up so that at least one Equity Advisor was available at all times and forms could be processed within 24 hours.

It is important to note that new women faculty recently hired did not perceive that they were treated any differently than (they perceived) men candidates had been treated during their recruitment to UCI; that is, gender did not register as a factor in the recruitment experience of any woman interviewed in the site visit. Women interviewees indicated that, from their point of view, they were treated as members of their disciplines, not as members of a gender. This was a positive experience for them, and contributed to their decision to accept UCI’s offer¹⁰. New women faculty noted that at some other universities they visited, Search Committees had emphasized their importance as women faculty per se, and this was not necessarily appreciated. As part of the gender-neutral experience, new women faculty did not meet with Equity Advisors, and this also was indicated to be appropriate. One interviewee commented that “you see one when you’re in trouble”.

SUPPORTIVE AND ACCOUNTABLE DEANS

Success in recruiting women faculty to UCI takes more than new positions and dedicated Equity Advisors. Another part of the equation is supportive and accountable Deans. Among the Deans, there

¹⁰ The site visit results corroborate findings from Professor Stepan-Norris’ report entitled *Interview Project with UCI Job Candidates, 2005-2007* which indicates that interviewees’ ratings did not differ significantly by gender, rank, race/ethnicity, but only by whether or not the interviewee accepted UCI’s offer. When they mentioned it, existing female faculty indicated that the gender equity situation on campus was favorable (page 12).

has been strong support for ADVANCE from some, while it is acknowledged that others could have done more to encourage gender equity. Supportive Deans have been credited as one of the key success factors for ADVANCE in Schools that have witnessed a significant increase in the number of women faculty recruited over the past several years. These Deans not only encouraged Chairs and Search Committees to envision gender equity as a means toward larger goals (e.g., academic excellence; a faculty that reflects the student body composition), but also engaged Equity Advisors in leadership discussions (e.g., on Chairs' Councils) and made resources available in the way of competitive salaries and start-up packages and laboratory space, without which top women candidates would have been lured to other institutions. When Deans are on board with respect to ADVANCE, then Chairs may be more inclined to follow their Deans' lead (of course, this may not always be the case).

On the other hand, there is another pattern for Deans who have not been engaged with the ADVANCE Program. Such Deans have made key decisions that have had a negative impact on the proportion of women hired in certain Departments in some specific ways. For example, such Deans may target strategic areas for growth that have a very low percentage of women available at the national level (i.e., below 10%), and display rigid adherence to this vision regardless of consequences for equity. The result is predictably that very few or no women are hired. This pattern also may include the full delegation of gender equity duties to Equity Advisors and the disinclination to intervene in hiring processes, as it is not one of the Dean's priorities.

The institutionalization of ADVANCE at UCI has brought clear expectations regarding Deans' leadership for the ADVANCE agenda. The EVC and Provost meets with every Dean Search Committee to make clear his expectations regarding equity and diversity. Individuals who are asked to Chair Search Committees for Dean's positions are said to have strong reputations for equity and diversity. Candidates must be able to speak knowledgeably regarding equity and diversity issues, or they will not be taken seriously. One Dean search that was underway during the site visit included an Equity Advisor, a former Equity Advisor, a representative from the Office of Equal Opportunity and Diversity (OEOD), and the ADVANCE Director also was asked to serve as a consultant to the search process. Further, it was noted that sitting Deans who were unsuccessful in the areas of equity and diversity were not renewed for second terms.

Academic Departments are in the process of developing strategic plans to submit as part of their School's strategic plan, and these must address UCI's commitment to diversity. The ADVANCE Director reviews these plans and informs the Provost regarding their quality. If there are serious issues with respect to equity or diversity, they are sent back for modification. Workshops for Chairs to discuss equity and diversity issues have been incorporated into the NSF PAID program, but feedback from the site visit suggests that many UCI Chairs do not attend these workshops.

CAREER PARTNER PROGRAM

The Career Partner Program is a UCI policy that was put in place prior to ADVANCE, but it is an essential component of the ADVANCE Program's success in recruiting new women faculty. In the aggregate, over the entire campus, this program has been responsible for bringing about 40 new couples to UCI's

campus, and overall has increased the number of women hired in a range of disciplines. Prior to the Career Partner Program, if a candidate had a partner that s/he wanted to bring to UCI with him/her, the recruiting Chair called the prospective partner's Chair and asked whether or not there was any interest, and often there was not because the other Department had other priorities. Participants in the site visit indicated that since the Executive Vice Chancellor (EVC) instituted the Career Partner Program, Departments now understand that by investing one-third of a position, they can gain access to talented faculty at a "discount" (both with respect to money and time), and this begins to be viewed as an advantage. Partners must be vetted and approved by the "receiving" Departments on the basis of the same criteria that would apply in a standard faculty search. The general institutional policy/practice is not to identify the primary faculty hire versus the partner within the personnel system, in order to minimize any potential bias. According to statements made during the site visit, there is a sense among some Deans that partner hires may have been used more in retaining men faculty, although administration representatives indicated that with regard to the numbers of men and women hired as the "primary" individual, the number is about even. In a recent blind study conducted by the UCI administration, no difference in scholarly productivity was found between men and women partner hires.

New women faculty hires interviewed during the site visit confirmed the significance of the Career Partner Program, both in their initial recruitment to UCI and in long term retention. The capacity of UCI to bring both the woman and her partner was an important consideration for a number of interviewees. The special significance attributed to finding a position for women faculty's partners is corroborated by the ADVANCE Program Faculty Surveys conducted by Matt Huffman (see *Final Advance Report/Summary*, October 2006). Not all new women faculty had positive experiences with the Career Partner Program, however. In one case, a woman who had already been recruited and advised not to mention her husband until after she was hired (she was told this by her mentor at another university), asked her new Chair about bringing her husband to UCI, and she was referred to UCI's website for information; she found this experience confusing and not very helpful.

One issue regarding the Career Partner Program and its role in recruitment of women concerns the level of support for gender equity evidenced by the Deans of particular Schools. As presently constituted, the program requires the receiving Department to provide one-third of the partner's salary. If the Dean of a particular School is not especially enthusiastic about gender equity and/or believes that resources in his or her School are constrained, such considerations might create barriers to participation in the program, and this might influence the number of women hired in that School, if a disproportionate number of partners are indeed women.

CHILD CARE FACILITIES

The existing child care facilities for infants and toddlers were reported by participants in the site visit to be excellent, both with respect to quality and flexibility of services. The services are in proximity to the campus. The primary issues are availability (there are not enough spaces for all of the demand, and women often have to find other arrangements within the near and intermediate terms) and cost (the

campus programs are at market rates and not everyone can afford them). The Montessori School near University Hills was noted to be especially “expensive”. Women believe that the child care facilities’ reputation for excellence is a recruitment advantage for UC Irvine, as women faculty would be attracted to the high level of child care. However, what was projected as a two year waiting list appears to be excessive and would not be an immediate solution for any family with children relocating to the area within a one year time frame.

Given the serious time constraints faced by women in the laboratory sciences raising young families the shortage of immediately available child care facilities would appear to be an issue that needs to be addressed. There was disagreement among participants in the site visit regarding whether or not this was a “make or break” factor in a woman’s decision to come to UCI. Some interviewees believed that potential new faculty recruits were making location decisions based on the availability of child care, while others disagreed. This is an empirical issue that could be the subject of further study.

Recent progress has been made in addressing child care needs. A \$2M expansion of the Infant/Toddler Center is planned, with places for 40 additional children. The campus will subsidize a portion of the operating budget. ADVANCE has been centrally involved in advocating for enhanced childcare facilities; Equity Advisors serve on the Advisory Committee on Child Care, and the ADVANCE Director serves ex-officio. The Executive Vice Chancellor has made enhancements to child care a priority in the future capital campaign.

Specific Aim 4) Implement faculty development, retention and advancement; set up a program for assistant and associate professors to assure promotion to tenure and full professor, and to develop their careers beyond these barriers, including into administrative positions; strive to retain women faculty and increase their job satisfaction by assuring equal treatment in all relevant measures at all ranks.

DEVELOPMENT, ADVANCEMENT AND RETENTION OF WOMEN FACULTY

In our discussion of Specific Aim 2, it was noted that while women faculty in the senior ranks of the STEM fields generally had increased overall during the years of the ADVANCE Program at UCI, these gains have not been even across the S&E fields or across ranks. In some Schools and ranks, women's representation has increased, while in a few others it has declined¹¹. It is interesting to note that only Information and Computer Science displays increases in representation at all ranks. The picture for other fields is not consistent, although a decline in the representation of senior women at one or both ranks is taking place in each of the other fields.

Increased representation of women in STEM fields at all ranks over the period of the ADVANCE Program may result from several factors, including improvements in recruitment, success in promotion and tenure, and retention of women faculty over time. Data provided in the UCI ADVANCE Program's *Fifth Year Report to the NSF* (September, 2006) shows that between the years 2001 and 2006, 93% of all women applying for tenure were granted tenure, while 83% of men applicants were granted tenure¹². [These data were not reported by STEM field versus non-STEM field, however.] There were no data regarding the number of women who may have left UCI prior to applying to tenure, possibly as a result of having been discouraged from applying for tenure or as a result of being recruited by another institution or finding other career options (i.e., leaving academia). Since recruitment has increased, and promotion and tenure appear to be at par across genders (with the proviso that STEM versus non-STEM field differences were not reported), then if there are declines in the representation of women at senior ranks in certain S&E fields, we should consider retention or attrition as a possible causal factor.

Current data on voluntary, non-retirement attrition in the STEM fields for the seven years of the ADVANCE Project have been provided as a component of the NSF indicator data (and in supplementary data supplied to the external evaluator). The attrition *numbers* are not large; 25 women at all ranks left UCI voluntarily between 2001-2002 and 2006-2007. While it is to be expected that increasing the representation of women at any given rank would increase the absolute number or incidents of attrition among women, it is also worthwhile considering whether or not the relative incidence of attrition among women has increased (i.e., the attrition *rate* of women compared to the attrition rate of men). The attrition data supplied to the external evaluator are not sufficient to determine whether or not

¹¹The following fields and ranks showed declines: Biological Sciences Professors; Engineering Assistant and Associate Professors; Physical Science Associate Professors.

¹² More recent (2007) tenure information shows raw numbers rather than percentages.

there are gender differences in the rates¹³ of attrition over the period of the ADVANCE Program. To determine whether or not there are gender differences in attrition rates among the STEM fields, we would need data on both the absolute number and percentage of women and men faculty at each rank, and the absolute number and percentage of attrition among men and women faculty at each rank, for each year of the ADVANCE Program. We would then be able to compare the rates of attrition for men and women faculty over time, and detect differences in such rates.

The attrition numbers in STEM fields are small and fluctuate greatly from one year to the next, making it difficult to draw any conclusions based on the data that has been provided. However, it is of concern that in some years the number of women leaving UCI was greater than the number of men, given that women represent only a fraction of the total faculty population (this matter is discussed in the report entitled *Distinguished Intellectual Leaders: Incumbents of Endowed Chairs* (Professor Douglas Haynes, 2008). More rigorous quantitative analysis is needed to ensure that voluntary attrition has not become a “backdoor” through which gains made in recruitment of women faculty within the STEM fields are undone, a concern that is addressed further below.

Women faculty at UCI have made gains within the population of endowed Chairs, while at the same time the total set of endowed Chairs has increased substantially. Endowed Chairs have increased from 49 in 2001-02 to 69 in 2006-07. Women represented only a little less than 10% of the 2001-02 population of endowed Chairs (5), but now have increased to about 18% (12). Men also increased their representation from 61% (30) to 69% (48); 9 of the Chairs are still vacant. More gains should be made by women as the planned numbers of ADVANCE Term Chairs are filled during the capital campaign. The UCI capital campaign includes \$16M in priorities for ADVANCE, and \$12M to support the Term Chairs (continuing the existing Chairs, and adding at least one for each School).

The representation of women at Step VI and above also has increased, however the data provided to the external evaluator does not discriminate between STEM and non-STEM fields, nor does it situate the data in a meaningful context, whether that be national availability, or peer institutions.

The situation with respect to women administrators on the UCI campus is somewhat mixed. The number of women Chairs has not increased over the years of the ADVANCE Program, but rather appears to have decreased. While these data were not complete, the number of STEM Chairs seems to have declined from 7 in 2001-02 to only 2 in 2006-07. The small numbers are due no doubt to the few available women Full Professors, but the reasons for the steep decline in Chairs in the STEM fields are not clear and were not addressed directly in any documents examined by the external evaluator. One potential reason may be the perception among women faculty that administrative positions (such as Dean or Chair) “shift” from being viewed as positions of power to being viewed as “service” when a woman is the incumbent, and thus are devalued (see Kristen Renwick Monroe’s *Final Report on Interview Section of the UCI ADVANCE Grant*, 2006, page 7). If this is the case, women may face a gender-based disincentive to hold administrative offices.

¹³ A rate is defined as an event that occurs within a population that is at risk for a specified time interval.

With respect to administrators above the Chair level, the numbers have been more or less flat or improved. The number of women Deans is about the same in 2006-07 as it was in 2001-02 (3 women in the STEM fields in 2002 and 2 in 2007). There has been one woman Vice Chancellor for Research appointment in 2006 that is notable, and there have been women Deans for Graduate and Undergraduate Education since 2005 and 2006, respectively. In addition, a report entitled *Distinguished Intellectual Leaders: Incumbents of Endowed Chairs* (Professor Douglas Haynes, 2008) notes that a significant number of women have and are serving as leaders of the Academic Senate at UCI and as Equity Advisors.

One related point deserves mention. During the site visit, some women interviewees observed that, from their point of view, men faculty appeared to self-initiate accelerations in the step-process toward promotions and to be successful in such initiatives more frequently than women peers. Women faculty, on the other hand, were more likely to wait until the expected time for step-process promotion, or to have their promotions decelerated (held back) due to making slower progress than men counterparts, for various reasons.

ADVANCE PROGRAM EXIT INTERVIEWS

There has been relatively less emphasis in the ADVANCE Program on the retention of women, compared with the emphasis on recruitment. The site visit was not able to identify many instances of efforts aimed at women's retention. Some Equity Advisors have been involved in retention efforts in individual cases within some Schools, but these have not been institutionalized, and reportedly there has been reluctance to involve Equity Advisors more systematically in retention efforts due to confidentiality concerns. The ADVANCE Program did initiate an exit interview survey of women and men faculty who voluntarily departed from UCI between 1999 and 2003 (see *Exit Interview Data Analysis: Voluntary Resignations of Regular-Ranks Faculty*, n.d.) to help uncover reasons for the departure of faculty from UCI. Unfortunately, the study did not distinguish faculty in STEM fields, and the time frame encompassed by this study probably is too early to detect any changes effected by the ADVANCE Program. Further an intended follow-up study was not conducted. Still, the study was illuminating in that it did identify a statistically significant gender difference in satisfaction with opportunities for collaboration (women were less satisfied with such opportunities than men).

In addition to the ADVANCE exit interviews, the UC system also has a survey that queries Department Chairs regarding faculty departures (after the fact), however there appears to be dissatisfaction with this survey (for one thing, it is not proactive) and there are discussions underway regarding its revision.

MENTORING PROGRAM

For the past three years, every School at UCI has had in place a mentoring program for junior faculty under the auspices of the ADVANCE Program. According to participants in the site visit, this means that there is a localized faculty member and/or a place or event where junior faculty can turn with their questions and concerns, and obtain counsel to find out whether or not they have valid issues that need to be addressed. Without the mentoring program, such questions might be put off, until it is too late.

It should be noted that the mentoring programs are School-based, which does not mean that each and every *Department* has a mentoring program. Discussions with STEM Chairs confirmed that there is a great deal of variability in the existence of, and experiences with, mentoring programs. One Chair reported the implementation of a voluntary mentoring program for all faculty that was considered to be successful, another indicated that his/her Department decided not to implement any mentoring program based on the notion that they have been hiring faculty with more experience and thus believed they did not need to be mentored, while still another explained that his/her Department had implemented a mentoring program for all junior faculty, but discovered variability in success based on the mentors' capability to mentor his or her mentees. This latter Chair suggested that the mentors needed to be mentored, or at least needed a checklist of what to do with a mentee; some mentors appeared to understand their role while others did not. Another Chair mentioned that job candidates are beginning to question whether the Department has a mentoring program, and are basing their selection decisions in part on the presence and quality of such programs.

As described by Professor Stepan-Norris in her *2006/2007 Equity Advisor Report Analysis*, mentoring programs are highly variable in structure and content across the Schools. The four descriptions below, each excerpted from site visit interview notes, provide further examples of variability in mentoring programs across four different STEM Schools:

- School 1. The mentoring program is decentralized, with some Departments having informal programs and some more formalized. The School also supports mentoring by providing an interDepartmental program and funds to enable senior faculty to take junior faculty to lunch for mentoring purposes (this is a voluntary program). At the School level, they have assigned each junior faculty member to a senior mentor.
- School 2. The mentoring program involves all faculty in the School, women and men. Junior faculty members are matched with senior faculty in their field of expertise. In one Department, the mentor may be the Chair of the Search Committee; this individual has an emotional investment in the success of the new hire.
- School 3. The mentoring program has two components. Department Chairs assign a senior faculty member to mentor a junior faculty member. In the Spring, the Equity Advisor hosts an independent mentoring panel for each junior faculty member that includes two senior faculty who will be voting on the junior member's tenure case; this provides another point of view on the case in question.
- School 4. A junior faculty mentoring committee is Chaired by the Equity Advisor. This committee sponsors a lunch each quarter that invites guest speakers on topics of interest to junior faculty (e.g., a member of the Committee on Academic Personnel). This School also encourages each junior faculty member to have two senior mentors, one who is assigned by the School and one who is selected by the junior faculty member. The ADVANCE Program pays for mentor-mentee lunches.

As indicated in Professor Stepan-Norris's latest report, Equity Advisors have a wide range of experiences with mentoring in general, and more specifically with their impressions of issues involved in the progression of women faculty through the ranks from Assistant, to Associate to Full Professor. It is not clear that each Equity Advisor has a comparable vantage point from which to view women faculty's progression through the ranks, or that there is a level playing field with respect to knowledge and skills in this area among the Equity Advisors.

At this point, only the School of Social Sciences has conducted a systematic study of its own mentoring program that includes the mentee's point of view. This study found that junior faculty report mentoring on the tenure process and mid-career appraisal to be very useful, mentoring on publishing and teaching to be moderately good, while mentoring on grant writing and balancing work and family life to be noticeably less widespread and less likely to be seen as useful. In informal discussions, several junior faculty noted that the campus is not family friendly, that they have concerns about stopping the tenure clock and possible consequences of stopping the clock, and that they were worried that stopping the clock may lead to perceptions that they were less dedicated, and that this (i.e., stopping the clock) may become an unnamed factor in their tenure evaluation (see *Mentoring Junior Faculty in the School of Social Sciences: Evaluation from the Mentee's Perspective*, 2008).

Based upon the reports cited above, the ADVANCE Program has begun to focus attention upon greater standardization of career-advising or mentoring for the mentor and mentee, while continuing to accommodate disciplinary customization. Mentors have been provided with guidelines based on internal experiences and those developed by other universities. Dr. JoAnn Moody, a leading consultant on mentoring in higher education, will conduct a minimum of three workshops on campus in the coming year to outline expectations for career advising partnerships (i.e., for mentors and mentees). Also, beginning in 2008-09, ADVANCE will institutionalize the mentoring survey conducted in the School of Social Sciences last year, in an effort to gain a campus-wide view of mentees' perspectives on their mentoring experiences. It is hoped that feedback from this survey also will encourage the development of campus-wide mentoring "best practices".

MID-CAREER APPRAISAL

The mid-career appraisal or review is a formal evaluation that takes place between the time a junior faculty member is appointed and the tenure review. A debate has arisen regarding whether or not the mid-career appraisal should be extended automatically once a faculty member has requested family leave. Some interviewees argued against automatic extension of this appraisal because a) junior faculty need feedback regardless of the situation, b) there are too many case-contingent factors that need to be considered, c) by the time a request for family leave is filed, it might be too late for such a delay, and d) some who file for family leave actually take active service modified duties and don't need a delay. The arguments for an automatic extension were not as extensive. It may be that such extensions would be best handled on a case-by-case basis, with the Chair weighing in.

CAREER EQUITY REVIEW

The UC system has a Career Equity Review process that existed prior to ADVANCE through which a senior faculty member may request that his or her salary be reviewed to determine if an adjustment is needed in comparison with peers. These reviews may or may not make a difference for senior women faculty, depending upon the individual case, according to statements made during the site visit.

A description of the methodology for producing the UCI pay equity data is available on the Academic Personnel Office's web page. The UC salary review process provides a regression model that allows any faculty member (or the administration) to enter data to project what a faculty member's salary "should be" based on a norm, given academic field and seniority (hire date). This program has been controversial in that some faculty have reacted less than favorably to the results obtained (i.e., half of the faculty have salaries below the mean), sometimes without a full understanding of the meaning of the data (e.g., the dispersion of salaries within some fields is so large that the standard deviation does not provide much useful information). This program interacts with ADVANCE; according to statements made during the site visit, individuals involved with the ADVANCE Program in the past may have encouraged some women faculty to take exception to their salaries when conditions did not warrant it.

Deans receive lists of faculty in their Schools who are paid less than predicted by the model, and Equity Advisors meet with their Deans annually to discuss salary "residuals" in individual cases within their Schools. There is variability across Schools in the ways Equity Advisors interface with the Career Equity Review Program.

Statements made during the site visit suggested that the Career Equity Program has helped to bring salary inequities to light, and a significant number of these inequities have been addressed. At times, faculty members were hired with salaries that admittedly were low, perhaps because they had not completed their degrees at the time, while other faculty members may have been hired at comparatively higher salaries due to relatively greater experience (e.g., post-doctoral positions). Such differences can be a feature of certain disciplines. Over the years, these differences can accumulate into significant salary differentials, especially if other gender-based dynamics are in play (e.g., Schools where larger numbers of women faculty or men faculty are concentrated; see Professor Stepan-Norris' *2006/07 Equity Advisor Report Analysis*).

As noted, Equity Advisors have been involved in the Career Equity Review process, although there are only a few of these reviews active at the present. These reviews are intended to correct the "negative residuals" uncovered during the Equity Review process. Some Equity Advisors have expressed negative opinions regarding this aspect of their role, in that it is complex and fraught with tensions, and they have little or no control over the resolution of salary issues. Some Deans believe that the interaction of the Career Equity Review process and the Equity Advisor role is making it difficult to recruit new Equity Advisors.

On a note related to salary issues, senior women faculty expressed concern about methods by which salaries of senior faculty are adjusted. There is an impression that men faculty are more likely than their

women counterparts to “play a game” of seeking job offers outside UCI in order to “force” salary upgrades that they otherwise would not be eligible to receive. Women faculty do not “play these games” because of family commitments, usually to spouses and children. In other words, the “game” requires that the player be willing and able to actually move if the counter-offer does not come through, and women faculty do not choose to make these moves due to the serious disruption to their families. There is a perceived difference between women and men faculty, in that men (and, if this hypothesis is accurate, single women) are more ready and able to make such moves and do make them. As a result, they are able to command higher salaries as they become more senior, while women’s salaries’ tend to become more compressed over time. If such differences exist, they could be identified through more rigorous historical analysis of counter-offers.

GENDER DIFFERENTIALS IN START-UP PACKAGES

Based upon an analysis of all letters of offer for tenured and tenure-track faculty in the 2004-05, 2005-06, and 2006-07 years, UCI has made significant progress in reducing gender inequities in compensation and other key conditions of employment in recent years (see *Analysis of Gender Differentials in 2006 Start-Up Packages at UCI*, Judith Stepan-Norris, December, 2007). The substantial and significant gender differences in step-level and summer compensation found in 2004 and 2005 largely disappeared in 2006. For the first time in three years, males were hired at the same step level as women, and women’s means for summer compensation were marginally higher than those men. Other gender differences that appeared in 2006 (total bonus amounts) were explained as a function of the individual Schools that did the hiring; that is, School was found to be an “intervening variable” that explained gender differences in total bonuses. Schools that offer the lowest entering salaries have the highest concentrations of women faculty, while Schools that offer higher entering salaries have higher concentrations of men faculty. When controlling for School, there is no gender difference in total bonus (although, this does not do away with the initial condition of gender differentiation by School; page 8).

WORK-LIFE BALANCE

The University of California system’s strong family friendly policies provide an advantage in recruitment of women in comparison to other major research universities that do not offer such a multifaceted suite of initiatives to support parents of growing families. These policies reflect a cultural shift toward acknowledging the importance of the relevant policies to everyone, not only women, but men as well. The notion that diversity and equity are part of the life style that people are choosing over other alternatives is gradually being reflected across a number of different task forces and committees at the University level (e.g., the UC President’s Task Force on Faculty Diversity, the Provost’s Management Group, the Academic Senate Committee on Diversity; the Director of the ADVANCE Program is a member of these and other groups). These cultural changes will increase the likelihood that the goals of ADVANCE will be realized over time.

Below, these policies are discussed, together with specific changes made in connection with the ADVANCE Program that have strengthened the UC's work-life balance policies on the UCI campus, thus making them more effective.

Family Leave (Stopping the Tenure Clock)

The family leave policy permits any faculty member with a child two years old or younger to “stop the tenure clock” for one year (or for a second year if there is a second child, for a maximum of two years). Both women and men faculty may apply for family leave. Previously, the policy required two separate steps (request and activation), but since ADVANCE was implemented, the two step process has been streamlined into one integrated step.

This policy also was further strengthened in connection with the ADVANCE Program by providing funding to academic Departments (through the Office of the Vice Provost for Academic Personnel) for the cost of instruction when an individual faculty member takes family leave. Such funding eliminates a disincentive to support family leave at the Department level, and is beginning to make a difference in the number of women who are accessing this benefit. According to interviewees in the site visit, more men faculty at UCI overall file for family leave than women faculty, which may be due to the larger number of men overall on campus. It should be noted that if men are using family leave policies on a differential basis, and then devoting leave time to increases in their productivity (while women devote such leaves to child care duties), there could be unintended consequences to such policies on a long term basis. Collecting and analyzing data on men and women faculty who are using work-life balance policies could serve as the basis for gaining a better understanding of the underlying patterns of use and consequences of the policy.

De facto accessibility to this policy may vary by School (i.e., whether it is actually used by faculty). In some Schools, it appears that women readily take family leave (or active service modified duties; see below) during their child bearing years, while in other Schools or Departments, there may be reticence by some women to take family leave due to discrimination avoidance (i.e., there may be the view in some Departments that taking family leave is a sign of “weakness”, and to avoid such perceptions, women may avoid taking such leave; see also discussion under Discrimination Avoidance). Women faculty noted that in Departments that had few women, it was necessary for women to cope with or adapt to the culture and climate, and one way might be to avoid emphasizing their differences from men (i.e., don't take a tenure clock stop for childbearing). It was noted that family leave may actually lead to career disadvantages for some women if they fail to build strong Departmental and/or disciplinary networks during their pre-tenure years as a result of such leave, an issue that could be addressed through mentoring.

Active Service Modified Duty

This policy, which is an alternative to family leave, was not mentioned by any of the faculty members who were interviewed, although it was mentioned by members of the administration as a work-life balance policy that was used by faculty (including being mentioned by one Dean as a policy used by

women who had initially applied for Family Leave; women faculty may be counseled to use this policy instead of family leave to avoid discrimination). One of the interviewees stated that this policy is not well understood up until the point at which it is needed, and then it might be too late to activate the policy. Faculty may view this and other work-life balance policies as alternatives to higher salaries (in which case they may not view such policies favorably), not recognizing that such policies are value-added means of contributing to the academic competitiveness of UCI. The ADVANCE Office has been sending out a letter to new faculty hires introducing them to UCI's work-life balance policies as a means to raising awareness of the availability of the policies and their value. Equity Advisors also are including information on these policies in their new faculty orientation sessions held in the Schools.

Statement on Work-Life Balance

To raise awareness of work-life issues and the benefits of UCI policies, and to address concerns about accessing these benefits, a statement on Work-Life Balance was developed by the Director of ADVANCE and endorsed by the Special Senate Committee on Diversity (of which the Director is a member). It is scheduled for consideration by the cabinet of the Irvine Division of the Academic Senate in the Fall 2008.

Child Care Resources

The ADVANCE Director was praised for obtaining a grant from the Elsevier Foundation for Dependent Care Travel Awards that will support child care services at conferences for faculty. This program will provide up to \$1,000 for childcare related costs to qualifying faculty to attend a professional conference or research meeting. The goal over the three years of the grant period is to fund up to 75 grants to qualifying faculty, thereby enabling faculty to make the transition to parental responsibility. Such services were not supported financially by the University, and their cost could be a barrier to conference attendance, especially by women faculty with infants who are nursing.

CULTURE AND CLIMATE ISSUES

The gender equity culture and climate for new women faculty hires varies, depending upon academic Department. In some Departments, women interviewees reported that they did not experience any differences in the treatment of women and men faculty; their support, mentoring, space and other accommodations appeared to be equal and they were quite satisfied. One interviewee in a STEM Department noted that "there is a subtle sense of relief that the women are here, finally". In other Departments, the culture and climate seems to have been equitable all along, with junior faculty of both genders encouraged to make their voices heard and to take advantage of work-life balance policies. Yet, not everyone is satisfied with the situation in her Department. Gender stereotypes and discrimination seem to persist in some Departments, with new women faculty perceiving themselves to be at a disadvantage with respect to senior men, who are favored with more desirable assignments and privileges. The understanding, knowledge and skill of Department Chairs with respect to gender equity concerns appear to be uneven. This is significant, as Chairs play a disproportionate role in the mentoring of junior faculty, even in Departments where there are formal mentoring programs.

Culture and climate issues were highlighted in two faculty climate surveys conducted by Professor Judith Stepan-Norris and Matt Huffman, one in Fall 2002 and another in 2004 (a third survey wave is planned for 2008). The 2002 survey found several discrepancies between men and women faculty (although STEM and non-STEM faculty were not distinguished): women faculty were less likely to receive extra space beyond the norm from their Departments, did significantly more undergraduate teaching and less graduate supervising, more School service, less University service, reported less satisfaction with their workload, were less satisfied with job security, less satisfied with their salaries, earned less than men, and were concentrated in lower paying Schools and Departments. By 2004, many of the job satisfaction differences had disappeared (although the questions in this survey were changed). Women were more satisfied with their ability to find qualified research assistants, but reported lower satisfaction managing their teaching load. Women expressed less satisfaction with work-life balance at UCI than men. Further, women were significantly less satisfied with accessing child care facilities at UCI compared to men. In 2004, there is still a statistically significant difference in women and men's service, with women doing more School service, and men doing more service for the University and the profession. Women received significantly more overbearing, intimidating, or offensive verbal behavior than men, a difference that was not statistically significant in the previous survey. Women also received significantly more physical intimidation than men. Thus although there have been improvements in job satisfaction, there remain culture and climate issues, as well as work-life balance concerns. The survey that is planned for 2008 will shed more light on these trends.

One important observation regarding culture and climate concerns the acceptance and adoption of ADVANCE concepts by faculty, and the subtle changes or alterations in program concepts and principles that have been made over time to encourage adoption. Interviewees indicated that ADVANCE has been made acceptable and more readily embraced by UCI as an institution when its programmatic content is altered to improve conditions for *all faculty*, not only women. Institutionalization of ADVANCE requires true equity and inclusion, not exclusion of men. This may be a requirement not only because of Prop. 209., but also because of the inherent logic of the notion of equity. If there are real improvements that are being made in a Department with respect to recruitment and advancement, then all faculty should have access to these improvements, not only the members of one gender. Other exclusionary logics operating in the background (i.e., women need special programs and therefore are not equal to men) also could work against ADVANCE if programs are limited to women, and could be counter-productive if women exclude themselves from such programs in an effort to avoid discrimination. Therefore, counter-intuitively, to advance women, ADVANCE should include men.

The need to consider both genders in ADVANCE is supported by the observation that some UCI colleagues may believe that early ADVANCE Program efforts (perhaps unconsciously) made them "feel guilty" about gender inequity, and this could have generated a backlash.

Sexual Harassment Policy

The State of California recently mandated that everyone with personnel responsibility would complete sexual harassment training (this includes all faculty who train graduate students). The Provost of the

University of California backed up this mandate by indicating that there would be consequences for faculty who did not comply (e.g., failure to accrue credit toward sabbatical, ineligibility to oversee graduate education). The message from the Provost was that preventing sexual harassment is the responsibility of all faculty and must be taken seriously.

UCI has responded with a robust policy and implementation process for issues and concerns related to sexual harassment, and these have been reported by interviewees to be effective. The policy and implementation process was changed during the course of the ADVANCE grant, and there is now zero tolerance for sexual harassment. Prior to the reported change, the existing policy was not clear regarding individuals' responsibilities with respect to the policy. It is now required that every employee read the campus policy and follow its mandate. Workshops are provided to clarify the policy and respond to questions. The Office of Equal Opportunity and Diversity implements the policy, and its actions are reported to be effective.

DISCRIMINATION AVOIDANCE

The external evaluator noted a potential difficulty in identifying junior women to interview during the site visit. While a relatively large number of junior women faculty were contacted by the ADVANCE Program Office with an invitation to participate in the site visit (reportedly around 50-60), only a small number accepted the invitation, even with months of advance notice. Several factors could explain the small number of respondents, including schedule conflicts and/or junior women faculty's intense focus on career development.

According to statements made during the site visit, junior women faculty also might be concerned about being identified with a gender equity program, fearing that there could be discrimination against them as a result. Examples of similar phenomena were provided by other interviewees: previously, women faculty had requested a workshop on work-life balance policies, but then declined to sign-in or state their names or Departments at the workshop; during a web survey of faculty, some individuals were concerned that if they provided negative comments and this information were divulged to anyone having authority over them, there could be negative repercussions; previously, when a large number of women and URM's were invited to have their salaries reviewed for potential inequities, only a small proportion agreed to such a review (about 16 out of 100).

Concerns that could be motivating reluctance to participate or self-identify (if such exists) may relate to a perception that anyone who associates with ADVANCE or another equity program could be open to charges of not being equal; that is, they need help that others don't need. Opening ones' self to such charges could create additional vulnerability, if equity programs are viewed as providing an unfair advantage (e.g., if a person stopped the tenure clock, he or she should have produced even more scholarship than normal). The irony here is that men faculty apparently do utilize policies such as the tenure clock stops, and if, as a result, they do produce more scholarship during these periods, then such extra productivity will reinforce the perception of unfairness; whether or not this happens is unknown at this time.

There also were statements made by some participants in the site visit that junior women simply may not be aware of ADVANCE events (or of policies promoted by ADVANCE, for that matter), or there may be a perception in some Departments that the ADVANCE Program's policies and resources (or anything related to gender equity) provides an unfair advantage to women.

This issue arose in discussing the policy on Family Leave, and the "tenure clock stop" provisions of that policy. Some interviewees indicated that they were aware of junior women faculty who were reluctant to activate the tenure clock stop, or had been advised not to activate it. This was by no means the rule, however; other participants indicated that women had used this resource; these responses varied by School and Department. One dimension of this issue appears to relate to uncertainty regarding the decision-making criteria of the University Committee on Academic Personnel (CAP). While this committee operates under formal policy, it also changes one-third of its membership each year, and Departments may be "surprised" by decisions that are made by CAP from time to time. Faculty who follow the expected path to tenure and are strongly supported by their Departments are least likely to have their files returned by CAP. If the tenure clock has been adjusted (e.g., for child bearing), however, the case enters a "grey area" that takes on the risk of potential bias. As a result of their experiences, some senior women faculty may have become more risk averse than their male counterparts. This may have the counter-intuitive consequence of placing some senior women mentors in the role of advising caution when counseling junior women, while some male mentors may appear to be more supportive at times.

Another dimension of discrimination avoidance relates to statements made during the site visit that speaking-out in public forums regarding gender equity issues (or even being associated with ADVANCE) could be interpreted as "trouble-making" and result in punishment or ostracism, either by higher administrative authorities or academic peers (see also Kristen Renwick Monroe's *Final Report on Interview Section of the UCI ADVANCE Grant, 2006*, page 8). Some interviewees stated that such fears reflected "paranoia" (i.e., they were not grounded in actual cases of discrimination, but in imagined consequences of possible actions due to limited information and possibly the circulation of rumors). Certainly, not all junior women share such concerns, but there were sufficiently numerous and varied statements regarding this pattern, to suggest that its presence be mentioned. Stronger programs of mentoring in Departments, both at the faculty and Chair levels, could help to alleviate such concerns.

Finally, it should be noted that gender-related activities can result in a time crunch for junior women faculty generally, who also have many other demands on their time (e.g., establishing scholarly careers, and sometimes raising young families). This problem can be particularly acute for junior women with joint appointments in two different Schools sponsoring different ADVANCE Programs. Some see a disadvantage compared to men, who are not expected to participate in gender-related events on campus. Some junior or recently tenured women indicate that they ultimately drop-out of participation in ADVANCE due to time constraints. It is not clear how many junior women are participating in ADVANCE events organized for them, how frequently they participate, or how much they value these events relative to other activities they engage in.

III. Recommendations

Specific Aim 1

EQUITY ADVISORS

As noted previously, the Equity Advisor role was intended to be decentralized and customized to each School in an effort to meet the needs of different sets of disciplines, and to work effectively within different institutional cultures and climates. Equity Advisors put a “personal face” on the program that is customized to each School, making the ADVANCE Program a concrete reality rather than a distant bureaucratic concept. The embedded, revolving nature of the Equity Advisor position (two year terms) reflects the decentralized culture of UCI, and was intended to facilitate acceptance and adoption of ADVANCE approaches and practices.

As a result of this philosophy, discrete programs, processes and procedures associated with the Equity Advisor position must be examined on a School-by-School basis. Co-existing with institutionalization, each School has developed its own model for the Equity Advisor role, each of which may have its own advantages and limitations that only are revealed over time. Some distinctions between these models may be subtle, but also could be significant.

For example, some Schools send the personnel forms AP-80a and AP-80b (approval to search and approval to interview candidates, both of which require Equity Advisor sign-off) to the Equity Advisors first, before these forms go to the Dean’s Office, while at other Schools the process is reversed, with the Dean’s Office collecting these forms and then sending them to the Equity Advisor. The order of steps in this process flow may send a small but subtle signal to a Search Committee regarding the relative positions of the Equity Advisor and Dean. The former process places the Equity Advisor between the Search Committee and the Dean (a less influential role for the Equity Advisor), while the latter process reinforces the idea that ADVANCE is a Dean-endorsed policy, and places the Search Committee in a more or less reporting relationship to the Dean (a more influential role for the Equity Advisor). While this is but one small illustration of a potential difference between Schools, it underscores the way in which relatively minor practices may have an influence on outcomes if they are compounded by other differences that accentuate Equity Advisors’ authority (or lack thereof). [Further illustrations of School-based differences in Equity Advisory practices are described below.]

The ADVANCE Program has matured to a point at which it may be time to examine some of these structural and procedural differences between Schools, and to sort out differences that effectively facilitate cultural customization versus those that may have been based upon the unique personalities of individuals who happened to be in certain roles at the time the Program was launched (or those that are hampering Program goals). There may be improvements in structure and/or process within Schools that could be identified by sharing knowledge related to facilitation of information flow, amelioration of role conflicts, or other “best practices” that support within-School activities. It is recommended that the Director of ADVANCE initiate a review of School-based Equity Advisor structures, processes, and

practices to identify and share “best practices” across Schools, much in the same way search and recruiting practices have been shared and institutionalized.

As part of this review, the supports and/or benefits associated with the Equity Advisor role should be standardized across the campus, so that there is greater consistency among the Equity Advisors with respect to perquisites. At present, some Equity Advisors receive a course release plus a stipend, while at least one receives only a stipend.

One potential means by which to ameliorate some of the issues attending to the Equity Advisor role may be to consider the option of co-appointing Equity Advisors as Associate Deans for the period during which they serve in the Equity Advisor position. The position could be defined as one created specifically for and limited to the ADVANCE role, or it might be designed with additional duties, contingent on the situation. The term of appointment could be limited to the two year Equity Advisor term, or extended, depending upon circumstances. Such a co-appointment mechanism could have several advantages: 1) it could provide the Equity Advisor with a more direct link to the Dean’s administrative management team, thereby potentially easing some of the role conflicts between Equity Advisors and Chairs that were noted above (Equity Advisors would clearly be Deans’ staff, supporting Chairs); 2) it would provide each Equity Advisor with a clear supervisory “chain of command” for reporting and evaluative purposes, and at the same time relatively greater administrative “clout” that may enhance communication and facilitate cooperation with Department Chairs and Search Committees; 3) it could potentially provide Equity Advisors with a more well rounded administrative experience, an administrative track record, and a more widely recognized administrative credential for inclusion on their CVs, in compensation for the substantial time spent on service activities; 4) it could allow Equity Advisors to receive a merit salary increment for their administrative service, rather than the current stipend, which at present is a “bonus” and does not influence the base salary; 5) it may permit Deans to vet potential candidates for longer term appointments, based on mutual interest; and 6) it may prove to represent a new pathway by which women and men faculty may enter administrative leadership roles at UCI more generally. This change also might attract some Full Professors to the position. In the one School that already has implemented this arrangement, the individual in the role is a Full Professor, and began his appointment as an Equity Advisor. The last point could contribute to UCI’s goal of advancing women and underrepresented minorities in academic administration. This type of co-appointment arrangement already has been implemented in one of UCI’s STEM Schools, and based upon information gathered during the site visit, appeared to be working well.

It is acknowledged that the Associate Dean option could have certain potential costs and/or consequences for the larger ADVANCE Program, and for the campus as a whole, and these would need to be weighed carefully against the benefits of the option, before any changes in the Equity Advisor role could be undertaken. While the co-appointment option reinforces the decentralized character of the ADVANCE Program, one possible consequence might be that the Equity Advisors would be pulled increasingly towards their respective Schools’ interests, needs and day-to-day activities, and away from the campus-wide institutional collaborative that has represented the ADVANCE tradition thus far. While such a centrifugal pull might help to resolve some of the in-School issues, it could make further

institutionalization of new or emerging ADVANCE practices more challenging. How such a new layer of administration would articulate with the rest of the campus would need to be worked out carefully. Co-appointment as an Associate Dean also may make the Equity Advisor role less attractive to some faculty (or more attractive to others).

The co-appointment of Equity Advisors as Associate Deans could further risk transforming the ADVANCE Program Office from its current role of intellectual leadership to a potentially less appealing state associated education and training, institutional research, and advocacy (or there may be a perception that this could happen). Such functions may not be as attractive to faculty who may be candidates for the Program Director role. Finally, it must be acknowledged that co-appointment of Equity Advisors as Associate Deans would require a commitment of additional resources, since Associate Deans receive compensation above and beyond that of Equity Advisors. Consideration might be given to sharing the costs of these resources between the ADVANCE Program and the School's Dean, reflecting the shared responsibility of the role.

The co-assignment of Equity Advisors as Associate Deans should be considered as only one possible option to address the issues that have been raised concerning the Equity Advisor role. It may be that some Schools would choose to try this option on a pilot basis, and others not. In any case, it is recommended that Equity Advisor structures and practices be reviewed carefully by the ADVANCE Program in the context of emerging campus realities, to determine how the issues that have been raised regarding this important role might be accommodated.

Whether or not UCI decides to pursue the co-assignment of Equity Advisors as Associate Deans, there remain other organizational issues to consider. As currently structured, the Equity Advisors as a group may be thought of as a distributed, matrix-like organization that is more-or-less "a-cephalous"; that is, there is no clearly demarcated executive administrative head with clear authority to lead and provide administrative oversight to the entire apparatus. The ADVANCE Director is a faculty leader who provides scholarly, intellectual, and communicative guidance and strategy for the entire ADVANCE Program. However, as presently structured, this role is not intended as an administrative executive with developmental and oversight responsibility for Equity Advisors as a personnel category. The Vice Provost for Academic Personnel also is not in an ideal situation with respect to providing both developmental and oversight responsibility for this group. His structural role requires that he remain in a neutral position on personnel matters, while the Equity Advisor role is set up for advocacy, which is bound to lead to structural tensions between these roles.

It may be that UCI should consider the construction of a separate administrative position to provide evaluation and guidance for the distributed, matrix-form Equity Advisor community, whether or not the Equity Advisors are co-appointed as Associate Deans. Such a position is described in the section below.

ADVANCE PROGRAM STRUCTURE

There was universal praise for the intellectual vision and genuine spirit of dedication and commitment to the goals of equity, inclusion and diversity that the new Director of ADVANCE has brought with him to

the Program since his arrival in 2006. His communication and listening skills, ideas for program enhancement, and capacity to work closely with both faculty and administrative representatives has been widely recognized as exceptional. UCI is fortunate to have such a talented leader for its newly institutionalized program effort.

Virtually all interlocutors were in agreement regarding the need for a decentralized and customized structural arrangement that would enable UCI's ADVANCE Program to flexibly adapt to meet the needs of its diverse Schools, while remaining connected through the Equity Advisor network and the ADVANCE Program Office. This type of loosely coupled "matrix organization" is appropriate for a large, complex research university where faculty decision-making drives much of the action that matters with respect to hiring and promotion of colleagues.

On the other hand, there are limitations to such a structure, and vulnerabilities that should be acknowledged. The part-time positions of the ADVANCE Program Director and Coordinator, their reporting line to the Vice Provost, who really cannot be "the" champion for the ADVANCE program due to the structural constraints built into his own role (i.e., he must arbitrate in many cases that could put him at odds with grievances brought by women faculty), and the highly decentralized and fragmented structure of Equity Advisors embedded in the Schools who, in a sense, really do not report to anyone on a day-to-day basis, is a rather fragile organizational arrangement that could be subject to elimination should the Executive Vice Chancellor depart at some point in the future and a different EVC not similarly committed goes looking for a convenient item to cut from the budget¹⁴.

¹⁴ The arrival of Michael Gottfredson as Executive Vice Chancellor (EVC) and Provost in 2000 brought a shift toward a new philosophy that envisions equity, diversity and inclusion as a means toward competitive distinction at UCI. Numerous participants in the site visit emphasized the importance of the EVC and his policies in supporting institutional transformation. Gottfredson, who had positive experiences with gender equity programs at the University of Arizona, instituted the Career Partners Program that is a model for other universities in the recruitment of women even before ADVANCE was established on campus. Michael Gottfredson has been personally responsive and interested in the ADVANCE Program, providing funding to institutionalized ADVANCE through the commitment of an annual investment of \$250,000 to continue the primary activities of the ADVANCE Office once the NSF funding had concluded. His fundamental idea has been to completely integrate the idea of diversity into the academic plan for the campus, and to have that plan drive the budgeting processes which in turn constitutes the future faculty composition of the campus. Deans and Schools need to make persuasive cases that they are making progress on diversity goals and objectives as they present their budget requests. Diversity thus becomes one of the key metrics by which Deans and Schools are judged over time, helping to resolve some of the tensions around diversity. Gottfredson has been able to argue persuasively that the campus' future excellence will depend upon a synergistic relationship between high quality faculty and their overall or global diversity as a faculty body, rather than becoming caught up in debates over the tensions between these variables. This is an enormous achievement.

There are reasons why it might not be advisable to enhance the role of Program Director to provide greater administrative clout, say by having all of the Equity Advisors report to him/her for annual evaluation purposes. Such a move could tilt the slant of the ADVANCE Program too much toward administration and away from the faculty embedding, thereby possibly reducing its effectiveness. There are many reasons to suggest that the existing structure is fine, and that what is needed is an additional component to provide greater robustness in response to perceived fragility.

This additional element could be the creation of a new position (not necessarily full time) or a Vice Chancellor or Associate Vice Chancellor for Equity, Diversity and Inclusion, reporting directly to the Executive Vice Chancellor. This VC or AVC would be responsible for developing and implementing long range plans and goals for the campus related to equity, diversity and inclusion, within the context of state and federal law. The new VC or AVC could have within his or her portfolio the ADVANCE Program, and be responsible for data analysis on equity and diversity, and also would be responsible for holding regular programs that develop and enhance the skills of the Equity Advisors, and for providing evaluative input to Deans regarding the performance of individual Equity Advisors each year, based upon a performance evaluation report submitted by each Equity Advisor to the VC or AVC. This could address issues related to the competency and accountability of the Equity Advisors that were raised by several interviewees. The institutionalization of a new executive role would help to “keep the flame” regardless of whether individual administrators transition out of UCI, and ensure that ADVANCE has an executive level leader who has the time and expertise to provide a larger vision for diversity across the campus as a whole.

ADDITIONAL ILLUSTRATIONS OF SCHOOL-BASED DIFFERENCES

Another example of differences between Schools is reflected in the interaction between Equity Advisors and Search Committees. In some Schools, Equity Advisors meet with all Search Committee members each year, while in other Schools there are several large, general sessions to which everyone is invited (but not all may attend). These differences may be a function of the number of Departments and searches going on in a School; it may not be possible for Equity Advisors to meet with everyone on every Search Committee in the larger Schools. An issue was raised concerning the latter practice (i.e., requiring a meeting with all members of all Search Committees each year, regardless of whether or not they have attended such sessions in previous years). While refreshment of training is a positive reinforcement method, the open behavioral resistance which appears to be on display during some of the mandatory re-training sessions may signal a counterproductive process. The repetitive training practice was defended on the grounds that the content of these sessions may change from year to year, that some members of Search Committees may be new and that it is important that the discussion be refreshed among the group as a whole, and that senior faculty on the Search Committee who are supportive have an opportunity to represent role models for junior faculty. All of these arguments have some merit. On the other hand, if enforced re-training encounters entrenched resistance, then it may be time to re-think the practice, and/or the way Search Committees are constituted.

Another Equity Advisor practice that was devised to address a specific problem and appeared to be effective was that of appointing two Equity Advisors within a single School, rather than one. Two Equity Advisors in the same School had several advantages, including 1) one can be present if the other is absent to facilitate interactions with Search Committees; 2) variability in demographics, personalities, styles and professional backgrounds provides more points of contacts for faculty communication, especially if one is male and the other female (which also promotes gender equity and guards against backlash), and 3) the dissolution or at least weakening of a sense of “dogma” or policing that some may perceive to be associated with the Equity Advisor role (as two Equity Advisors usually do not agree on all subjects).

In the future, to ensure that ADVANCE programs promote equity and diversity in a balanced manner, and that its policies and programs are supported by as many faculty as possible, it is recommended that Equity Advisors be appointed in pairs whenever possible, with one member of the pair being a woman and the other member being a man (or reflecting diversity in other ways). This recommendation follows from the observation that both women and men have issues related to career advancement and all of its attendant concerns, and could benefit from ADVANCE Programs. To the extent that men faculty benefit, women will be able to access these programs without fear of discrimination. There are some issues and concerns that may be best addressed by a man to a man; for example, if there is a matter of personal interaction style in a Department that is creating difficulties for junior women, such a matter might best be addressed by a male Equity Advisor, rather than a woman. Or, a woman-man team of Equity Advisors may present a more collaborative and supportive approach to the entire matter of gender equity than a group of Equity Advisors who are primarily women. This would help to reduce the notion that women are “scolding” men, or “making them feel guilty”, an issue that was raised by some interviewees, and which may generate its own resistance.

TERM CHAIRS

Once the ADVANCE Program begins to focus more intensively and systematically upon the retention and advancement of women, the potential of the ADVANCE Term Chairs within their specific disciplines, and acting as a resource for the campus, may become more apparent. This key role has been overshadowed by the emphasis on recruitment of new faculty and institutionalization of recruitment practices.

The ADVANCE Term Chairs should be asked to summarize their experiences in a written document, and to discuss these with APAC, as a means to further develop the Term Chair role, and ACAP should consider “best practices” for Term Chairs that could be introduced in the future. If additional Term Chairs are established, there would be a larger resource to draw upon.

To ensure that the Term Chairs’ role is preserved and re-invigorated within the ADVANCE Program, and that Term Chairs are established in each of the Schools and thereby able to work together as a group, UCI should move beyond prioritizing funding targets for this program in the capital campaign. UCI should commit capital campaign funding, if not from funds specifically designated for this purpose, then from undesignated campaign funds, or at least a match between the two.

Specific Aim 2)

DATA COLLECTION AND ANALYSIS MODEL

The originally proposed model for data gathering, with its reliance upon faculty members and their associates and/or Equity Advisors to capture data directly from Departments, has not proven to be an efficient or effective means to build an accurate, complete, and comprehensive database of indicators on gender equity that can support and enable institutional transformation. Some of the reasons for the difficulties in following through on this model were described in the Findings section of the report under Specific Aim 2. To capture data that is accurate, timely, and systematic in nature, requires an institutional solution. This solution should be supported by UCI and maintained under the institution's purview. Nothing less will enable UCI to determine whether or not it is achieving its vision and strategic goals over the long term.

It is recommended that UCI create a new professional staff capability under the Executive Vice Chancellor and Provost for the purposes of institutional data collection and analysis focused on equity and diversity. Data gathered under the auspices of the EVC would represent official institutional data that would not be gathered for purposes of publication as such, and thus would not be subject to Institutional Review Board (IRB) oversight. However, faculty should have access to the data, and should be able to develop research proposals utilizing data from the institutional data base that could be reviewed by the IRB, in keeping with Federal and UCI policy.

The ADVANCE Program would have access to this database, and would be able to work with an individual employed to construct and oversee the database, and pose questions that have strategic significance for purposes of the ADVANCE Program. However, other members of the UCI administration also would have similar access to the database and its creator/director. Ultimately, the EVC would set strategic priorities for data collection and analysis, and that process would require institutional guidance beyond the ADVANCE Program.

Certainly, there are many proactive measures that could be taken if there were an administrative function under the EVC's purview that had the capacity to analyze institutional data based on strategic questions and priorities (e.g., data analysis could be useful in training for Department Chairs, in Dean level reviews, and in making strategic investments). For the immediate future, it seems clear that UCI requires a means by which to acquire a "line of sight" from its equity and diversity vision and strategy to related performance metrics, and this will not be possible without a professional staff member who has the capacity to accumulate and access data and analyze it properly.

NSF DATA INDICATORS ANALYSIS

In the meantime, prior to releasing the Final Project Report to the NSF in December 2008, UCI ADVANCE should consider reframing its NSF ADVANCE indicators database to include the following operations:

- Conceptualize all relevant stages (or ranks) in the “pipeline”, and events within those stages (or ranks), that influence women faculty’s representation at a given rank in a science or engineering field;
- Stages in the pipeline may represent consecutive and/or concurrent ranks or states/statuses, such as applicants for faculty positions, short-listed candidates, newly hired assistant professors, faculty applying for reappointment, faculty applying for promotion, faculty applying for tenure, faculty nominated for awards, or other forms of advancement, etc.
- Relevant events may include any action (e.g., a decision) that may be taken by the institution or the individual faculty member which increases or decreases women’s representation at a given rank in a science or engineering field.
- Events may include selection into a pool for consideration, hiring at each rank, attrition at each rank, the award of tenure, promotions at each rank (consider accelerated promotions, decelerated promotions), promotion to step VI, promotions to steps above VI, naming to endowed Chair positions, appointment to Department Chairs, appointments to Dean positions, etc.
- Determine the annual *rate* at which relevant events occur for the women *and men* faculty populations as a whole, for each rank, in each field. A *rate* may be defined as an event that occurs to a population at risk within a specified period of time. To establish gender equity, rates of events for women *and men* faculty populations must be compared for each stage where a population is at risk within a given time period.
- Aggregate data by School and for STEM fields as a whole.
- Establish one or more external contextual reference point(s) for benchmarking purposes, and justify the choice of the reference point.
- Establish a baseline year or several sets of baseline years for comparison purposes; that is, a set of years prior to the award of the ADVANCE grant at UCI, so that performance *after* the ADVANCE grant can be compared with performance *before* ADVANCE. Justify the choice of baseline years with reference to the original NSF proposal (i.e., make reference to Proposition 209).

FUTURE STRATEGIC PLANNING

Looking to the future, the ADVANCE Director should work closely with the APAC to develop a strategic plan for data gathering and analysis under the auspices of ADVANCE. This plan should continue to respond to the NSF indicators (as these may be considered to represent a high standard in measurement), but they also should reflect concerns related to consistency, context, collaboration among investigators, comprehensiveness, and reflexivity/criticality. While faculty must retain academic

freedom to pursue any inquiry they choose within the bounds of legality and ethics, studies that are supported by the ADVANCE Program should enable the Program to achieve institutional goals.

A future strategic plan for data gathering and analysis should address the following questions:

- What vision and goals has UCI ADVANCE established for the next time frame?
- What metrics/measures have been established to enable tracking toward these goals?
- What data and analyses are required to satisfy the metrics?
- How will the goals and metrics be communicated to constituents, and when?

An ideal format for a future study would be to establish a panel of new faculty to include just-recruited women and men, and to follow this panel over the course of their careers, gathering detailed, longitudinal data, as a means to understand the relationships between gender differences and career outcomes at UCI. Such a study would integrate quantitative and qualitative data. This suggestion also has been made by Matt Huffman in his *Final Report/Summary* dated 2006.

Specific Aim 3)

EXPLORING MECHANISMS OF GENDER EQUITY IN RECRUITMENT

The effectiveness of UCI ADVANCE's approach to increasing the representation of women in science and engineering fields provides a unique opportunity to explore the mechanisms underlying gender equity. The several reports and analyses that have been conducted thus far offer possibilities for further scholarship, yet (as far as the external evaluator is aware) few have been published thus far (with the exception of Professor Monroe's interview investigation).

It is recommended that the investigator(s) who have made progress in establishing links between the number of positions allocated and the gender outcomes of recruitment move as soon as feasible to develop their hypotheses regarding mechanisms underlying this relationship, and to consider how this work might be further pursued and disseminated. While the time frame for the study is still rather short, a database is being established that will grow over time, and this in itself will be of interest to other investigators.

It is also important to consider the relationship between economic and financial variables (e.g., budget cycles) and hiring patterns, and the extent to which resource availability influences gender equity in recruitment and retention across different Schools and Departments. If resource constraints have been a significant deterrent to gender equity, this should be further explored and (to the extent possible, given the short time frame) validated, so that countervailing measures can be undertaken by administration during future recessionary cycles.

Emerging hypotheses also might be tested in the context of special hiring "calls" for excellence, interdisciplinary programs, and diversity, or other types of cluster-like searches. If more resources are "pre-allocated" thematically, this could constrain Deans' flexibility on the one hand, while diffusing responsibility for equity and diversity on the other, a potential threat to gender equity mechanisms that should be monitored closely.

BUILDING THE UPSTREAM RECRUITMENT PIPELINE

The external evaluation highlighted the difficulty of improving gender equity in fields where the national availability of women was low (< 10%) and competition was high. Search Committees in these fields start off with a small number of Departmentally-based women, and may not have had a history of supportive Deans. Site visit interviews suggested that some faculty were resistant to Equity Advisor practices, and may not have been cooperative in requests for data collection (see Matt Huffman's *Final Advance Report/Summary*, 2006, page 8). Several other issues related to gender devaluation, failure to see gender inequity as a problem, and perceptions of overt gender discrimination have been discussed by Kristen Renwick Monroe (*Final Report on Interview Section of the UCI ADVANCE Grant*, 2006, pages 7-9). Under these conditions, it is not likely that substantial improvements in gender equity outcomes will be achieved quickly or easily.

At the same time, it was noted that recruitment in science and engineering fields has been relying on fairly standard advertising venues for its postings, and only in certain circumstances had UCI made inroads into graduate student and post-doctoral recruiting venues. While NSF ADVANCE has focused on faculty, the institutionalized UCI ADVANCE could begin to examine the upstream areas of the pipeline more carefully, and make connections with organizations, associations and venues that represent graduate students and post-doctoral fellows. Engaging with a professional or consultant who specializes in this type of recruitment could provide insights into ways ADVANCE could enhance its upstream activities in to fields where women are less numerous, and find ways to familiarize women with UCI earlier in their careers.

THE ROLE OF CHAIRS

The important role of Deans in gender equity outcomes has already been noted, as has the process of creating strategic plans in academic Departments with respect to gender equity goals. There is little question that Department Chairs also are a crucial factor in the gender outcomes of recruitment. Chairs work closely with faculty in establishing the strategic goals of Departments that shape recruitment objectives, and they also influence other recruitment priorities that help to determine the refined interests, targets, and time lines of Search Committees. Chairs also are crucial when candidates visit campus in establishing the nature of the Departmental culture and climate, either attractive to the candidate or not.

The responsibilities of Chairs at UCI apparently are not consistent from one School to the next, thus it is not possible to generalize regarding the appropriate role for Chairs in ADVANCE activities. Chairs serve in a variety of roles within different School; some Schools may have no Departments, and thus may not have formal Chair positions. In other cases (perhaps more so in the past), a Department may be free-standing, with the Chair acting virtually as a Dean. Schools may be centralized or decentralized, with varying degrees of responsibility assigned to Chairs. In centralized Schools, many responsibilities are centralized in the Dean's Office.

Yet, while it may be difficult to generalize regarding the normative framework for Chair's interactions with ADVANCE, focus group participants agreed that Chairs are important in recruitment of new faculty, and that they can make a difference in whether or not women faculty are hired, especially if the Dean is not fully engaged with ADVANCE. Questions about whether or not Chairs are held accountable for gender equity in every School and Department could make a difference in the future as new Deans come on board and the hiring momentum eventually slows down.

Yet, Chairs did not appear to be as actively engaged in the ADVANCE Program as one might expect, given their positions as key decision-makers in Departments which do the hiring; rather, they seemed to be in more traditional roles as unit administrators and scholars who also may take an interest in mentoring of junior faculty from time to time. Certainly, they did not appear to be positioned as leaders in the gender equity process. Some Chairs have provided support and guidance to junior women faculty, but such

examples were not particularly numerous. Statements made by participants in the site visit suggested that Chairs are divided regarding the need for mentoring programs in their Departments.

Chairs of STEM Departments indicated that attendance of Chairs at ADVANCE events typically is not high. For example, at the NSF PAID event for STEM Chairs that was held recently, only 7 or 8 Chairs from UCI were in attendance. This is attributed to the over-loaded schedules of Chairs, whose roles include both scholarly productivity and academic administration.

Some Chairs still have reservations about the ADVANCE Program. One STEM Chair indicated that the message of “just hire more women” which comes across when Equity Advisors show them charts of numbers of women rising is not the right message. This suggests that hiring more women is “good” and that is an affirmative action message that people do not believe in anymore. The message needs to be altered to show that equity and diversity lead to the results that UCI wants to achieve. The unconscious bias message is well received; generally, people don’t believe they have these biases, and the data are powerful. According to interviewees, it would be helpful to show Chairs how diversity is linked to excellence. Other Chairs still are nervous that “going overboard” on searching for women and URMs and selectively recruiting them is illegal.

Information gathered during the site visit suggests that Chairs are not always held accountable for results if the proportion of women faculty in a particular Department does not approach national availability over time. Chairs with poor results may be reappointed anyway, suggesting to some observers that the APM requirements regarding diversity of faculty are not taken seriously in performance review of Chairs. According to one observer, Chairs just “roll over” (i.e., appear to more or less rotate in and out of positions), so there really is no Chair review process per se. If this is actually the case, then it would be very difficult to hold Chairs accountable for gender equity.

It is recommended that UCI ADVANCE and the UCI administration give serious consideration to the role of Chairs in the recruitment of women faculty, and particularly to the processes by which Chairs are engaged in ADVANCE. Assuming all Deans are supportive of ADVANCE goals, then Chairs should be more actively engaged in a leadership role in the ADVANCE Program. While Chairs are scholars as much as they are administrators, institutional transformation at a research university requires leadership from Chairs at some level. If Chairs remain neutral or are negative towards the goals of ADVANCE, the transformation will be difficult to achieve, particularly as the hiring wave at UCI gradually subsides in the future. How to engage Chairs is part of the leadership challenge of institutional transformation, which requires a transformation of leadership. Whatever Chairs have been in the past, they may not be able to remain that way if UCI is serious about enhancing diversity in the future. UCI is changing, and the Chair role may need to evolve into one that is different from its historical form, perhaps taking on more leadership characteristics that bring increasing responsibility, different incentives, and new career pathways.

Specific Aim 4)

UNDERSTANDING DEVELOPMENT, ADVANCEMENT AND RETENTION

We have a fairly good picture regarding the representation of women at each major rank in the STEM fields at UCI, and the recruitment factors that have been involved in the achievement of the improvements that have been documented. UCI has been successful in recruiting more women to the campus. However, there are some important S&E fields where the picture is less clear, and declines have taken place. At this point, it is not possible to specify exactly where the difficulty lies, due to insufficiencies in the database and its analysis. Engineering was the only field with a decline in Assistant Professors, which suggests potential recruitment problems. For the other fields, the declines took place in senior ranks, which is more suggestive of development and/or retention problems.

Without a clear picture drawn from analysis of a gender equity database, it will be difficult to understand the nature of the problem and to devise improvement strategies for the future. Therefore, the database recommendation from Specific Aim 2 must be implemented first, and this database should incorporate all variables related to development, advancement and retention. Quantitative analysis of the database should enable UCI ADVANCE to determine what kinds of problems are localized in which fields, while qualitative analysis should enable the Program to gain holistic interpretations of issues surrounding the problems.

Given the complexity of factors interacting to produce a large academic research institution, it is likely that linear regression models may not fully capture everything that is going on as ADVANCE engages in institutional transformation. Assuming a full and accurate database of gender equity variables, it may be possible to consider future scholarship related to complex adaptive systems or dynamic systems models that represent faculty recruitment, development, advancement and retention as a non-linear phenomenon, one with interacting feedback loops that can generate unanticipated consequences (see for examples Bonabeau 2002; Oliva and Sterman 2001¹⁵). Faculty recruitment and development in STEM fields often is imagined as a “pipeline” (and indeed, the typical male faculty career may have linear elements), yet this is not necessarily the shape of reality. UCI ADVANCE may be experiencing non-linear feedback from increased recruitment in some fields, to declines in recruitment and retention in others. This could happen if there are resistance and/or backlash effects in certain academic niches. There also could be differences in rates of change in various parts of the campus that would be interesting to know more about. Engaging scholars with skills to accomplish the analysis of dynamic systems is part of the diversity challenge; if such are not in residence on the UCI campus, perhaps some could be recruited through one of the diversity calls.

¹⁵ Bonabeau, E. Agent-based modeling: Methods and techniques for simulating human systems. In *Proceedings of the National Academy of Science* 99, 3 (2002), 7280-7287; Oliva, R. and J. D. Sterman. Cutting corners and working overtime: Quality erosion in the service industry. *Management Science* 47, 7 (2001), 894-914.

Aside from analysis of complex adaptive systems, specific studies and/or data analyses that should be conducted with respect to development, advancement and retention of women faculty include the following:

- A study should be conducted of the Equity Advisors' role in the Career Equity Program, and whether or not it is value-added from the perspective of the Equity Advisors, Deans, Chairs, faculty, and other participants. Based upon feedback from this process, modifications to the Equity Advisors' role may be in order;
- Counter-offers to women and men faculty should be analyzed to determine whether or not there are any gender-based difference in such offers or their consequences;
- A study should be conducted to determine whether or not there are gender-based differences in productivity for those who take family leave;
- A study should be conducted to determine whether or not there are any gender-based differences in acceleration and deceleration of step-level promotions;
- An affirmative response should be provided to the Senate Council on Faculty Welfare (CFW), which has requested additional data that would allow members to analyze gender differences in mean pay residuals for several Schools at UCI¹⁶.

MENTORING PROGRAMS

The issues discussed in this report highlight the importance of mentoring for junior faculty, and the critical role of academic leaders such as Equity Advisors, Chairs and Deans in the individual Schools. Mentoring enables frank and open discussion of the relative merits of available policies in different Departments and how they should be utilized, and academic leadership is responsible for creating an environment where junior faculty can feel safe to use institutional policies to develop their careers and flourish. The role of Chairs in mentoring junior faculty seems especially important, given numerous statements made about junior women faculty's reticence to become involved in ADVANCE Program activities and policies (discrimination avoidance), and the confidential nature of UCI's step system decision-making process.

The role of Equity Advisors in mentoring is a subject that is gaining more attention at UCI, and it is expected that this role will be further institutionalized in the future. Currently, Equity Advisors are viewed as a resource with respect to retention matters, both by junior and senior women, but this may be a sensitive subject, due to issues of confidentiality, and the expressed position among some Deans

¹⁶ The additional data that has been requested is an excel spreadsheet showing, for each faculty member, without naming them, School (and basic vs. clinical affiliation in the medical School), rank, step, pay, (as used in the pay equity study), highest degree, year of highest degree, year of hire by UCI (or UC, whichever is used in the pay equity study), gender and ethnicity (white vs. other will suffice). As many years as possible is requested.

and Chairs that such matters should be under the purview of the administrative line. Expectations with respect to the Equity Advisors' role in matters related to faculty retention should be discussed and clarified as part of the overall discussion of faculty mentoring.

Mentoring junior faculty also is one of a Chair's most important responsibilities, and each Chair should understand this and be held accountable for faculty development results. Yet, without serious Chair review procedures and criteria, the influence of strategy can scarcely penetrate the Department boundary. The ADVANCE Director should discuss with the EVC the need for periodic Chair reviews as a necessary part of institutional transformation. This discussion should be placed in the context of institutional transformation and leadership (see next section).

More information is required to understand the situation facing senior women at UCI. Much of the focus of ADVANCE has been on recruitment and mentoring junior women, and less attention has been given to women in the senior ranks and their perspectives. Senior women at UCI should be consulted regarding their interests and needs with respect to their own future productivity, perhaps with a separate study aimed at this objective.

ADVANCING FACULTY IN ADMINISTRATIVE LEADERSHIP

UCI has administrative leadership education and training programs for Chairs (e.g., the NSF PAID Program), however, there are no such programs for *potential* administrators, where leadership skills could be developed and nurtured. Leadership development could be one means to bring more women and men with the potential for leadership into the administrative process at UCI. Such a program would not need to select only Full Professors, but could begin to identify potential leaders among all tenured faculty. The program should be competitive, selecting applicants with the greatest potential for administrative effectiveness in the future. Such a program for UCI, or UC campuses in Southern California, could be developed as an outgrowth of the PAID Program. This might be one approach to the further development of senior women at UCI. It also might be a pathway through which future Chairs could be developed with higher expectations for institutional leadership responsibility.

BEYOND THE SPECIFIC AIMS:

SUSTAINING ADVANCE'S MISSION AND SCOPE

The decentralized, embedded structure of Equity Advisors within the individual Schools, each with its own customized programs and processes, and the half-time University appointments of both the ADVANCE Director and Coordinator, reflect a philosophy of strong academic grounding and leadership that have enabled ADVANCE to gain initial acceptance and momentum at UCI during its founding years. This philosophy has not supported a strong central hierarchy with parallel administrative branches in the academic units; such a structure probably would not have been embraced by the faculty or academic Departments.

The organizational structure of ADVANCE at UCI, while reasonable for start-up purposes, also created its own contradictions. The staff of the Director's Office relied upon academically-based data analysts, who in turn were encumbered by other constraints that apply to such researchers (e.g., IRB rules, inconsistent databases, reticent faculty interviewees) that hampered the delivery of the documentation required by the NSF. When UCI took over funding of ADVANCE, the mission continued and even was expanded (to include URMs), but the resources for the Office were not enhanced. The staff has been seeking additional external resources to address the needs that the program has identified, and they have been successful in this regard (e.g., Elsevier grant, NSF PAID grant). However the writing, implementation and management of additional grants has tended to stretch staff capacity, while the original expectations of the ADVANCE Program have not diminished, and may have even increased, given initial success in recruitment.

The question that derives is whether or not the present structure is sustainable over the longer term. Is it reasonable for two half-time administrative staff members who are responsible for a decentralized gender equity apparatus to fulfill all of the four specific aims of the original ADVANCE proposal, while also addressing new demands required by adding URMS to their mission, with additional resources obtained by writing more external grant applications or making requests from donors? Based upon the findings of this report, the ADVANCE Program faced serious challenges meeting all of the four specific aims of the original NSF proposal during its first seven years, given the organizational structure chosen by UCI, and this suggests that the structure requires some enhancement if goals are to be fulfilled in the future.

Either the mission should be re-scoped, or additional resources should be invested. The ADVANCE Program has effectively fulfilled the first and third specific aims of the original NSF proposal, yet it has not completely fulfilled the second and fourth specific aims, and it is not clear how these can be fulfilled, together with the URM mission, with the present organizational structure.

UNDERREPRESENTED MINORITIES

Many of the new policies and procedures that have been introduced under the ADVANCE initiative can encourage the recruitment and retention of underrepresented minorities (e.g., the AP-80a and AP-80b

request information related to strategies for increasing diversity, broadly conceived). The new hiring policies are providing ways and means to expand recruitment pools, and to compare the pool in a particular search with the national pool. ADVANCE also makes Search Committee members aware of the importance of discussing objective criteria for screening and selection of candidates prior to the examination of individual candidate credentials. All of these approaches relate to a legal framework in which diversity may be interpreted as incorporating equity related to gender, as well as race or ethnicity, or other demographic factors.

In some Schools, an awareness of the importance of including underrepresented minorities on short lists, and their number on such lists, appears to have expanded in ways that would not have taken place without ADVANCE encouragement. At the present time, the number of underrepresented minorities at UCI is relatively small and stable over time, without what is sometimes referred to as a “critical mass” (i.e., a sufficient number to achieve a self-conscious presence and/or act together as a group). The institutional culture tends to recruit underrepresented minorities as individual scholars within academic fields, and continue to relate to each one as an individual, rather than as a member of a demographic group. A faculty survey found little evidence of perceived racial or ethnic differences in work-related satisfaction on UCI’s campus (see Matt Huffman’s study entitled *UCI Faculty Survey: Race Differences, 2006*)¹⁷.

At the same time, there may be some significant differences between the hiring of women and the hiring of underrepresented minorities, especially with respect to the availability of national pools in science and engineering. According to statements made in the site visit, women may be available in national pools at rates ranging from 15 to 65% (depending on field), while underrepresented minorities may be available at rates ranging from less than 1 to 10% (again, contingent on field). How to attract faculty from national pools with low availability may require different strategies and tactics than those that have been effective in ADVANCE; other approaches may be needed (e.g., programs targeting graduate students).

One possible strategy that could enhance UCI’s capacity to attract more underrepresented minorities would be to consider a cognitive shift in its recruitment practices. Instead of viewing recruitment as an annual cycle that is driven by proposals for FTE positions and position authorizations, with searches gearing up in late summer and early fall, and then continuing along a standardized “schedule”, the recruitment of excellent candidates, including underrepresented minorities, should be a continuous, year-round activity that has no beginning and no end. Faculty should be searching for potential recruits all the time, wherever they are (e.g., professional conferences or seminars), and regardless of whether or not there is a particular position authorized at that particular time or not. Outstanding candidates

¹⁷There were no significant differences between White respondents and non-White respondents to a faculty survey administered in 2004 on questions related to Department support, workload satisfaction, work-family satisfaction, general job satisfaction, types of support received, faculty service workload, or regarding disparaging remarks, inappropriate references, overbearing, intimidating, or offensive behavior, physical intimidation, or other forms of harassment.

may or may not be on the job market at the time. Searches may be authorized next year if they are not authorized this year. There needs to be a more strategic and market-oriented approach that identifies the configurations of individuals that UCI would like to attract over, say, the next five years, and then develop the packages that will attract them. Such an approach would require leadership driven by the EVC and the Deans, with some incentives built-in for academic Departments that are successful in their results. Positive incentives will have the greatest impact.

There will need to be some adaptations to enable ADVANCE to be optimally effective in recruiting and retaining underrepresented minorities. As noted, ADVANCE already has begun to incorporate policies and tools that are oriented toward diversity in general, and not only gender (e.g., see also Effective Practices for a Diverse Applicant Pool; Guidelines for Chairs and Directors for Promoting a Faculty Culture of Transparency and Inclusion). However, some additional tools still may be required, such as new processes to facilitate recruitment of URMs (e.g., neighborhood resources).

A number of interviewees in the site visit noted that the expansion of UCI's ADVANCE Program to include underrepresented minorities (URMs) represents a significant extension of its mission. The recruitment, retention and advancement of URMs at UCI requires its own theorizing, distinct from that of gender equity, grounded in its own history and literature, and with structures that may have an identity unique unto themselves. It is necessary to think carefully about the innovations that may be needed to enhance the environment for URMs over the long term. According to interviewees in the site visit, such a significant undertaking could require an investment of resources beyond those that have been committed to ADVANCE thus far, which are stretched to capacity in an effort to sustain the initial mission. Some new resources already have been identified. In addition to these, it is recommended that the Program Coordinator position should be converted to a full time role in recognition of the need for more internal resources to support this effort.

Generally speaking, the faculty response to the inclusion of underrepresented minorities in the ADVANCE Program has been open and responsive to the new mission, which is a credit to the ADVANCE Director and his office. The new Director's willingness to serve on a range of faculty and administrative advisory committees has provided him with access to input from a wide range of stakeholders and enables him to gain an understanding of issues and concerns related to gender equity and diversity in various constituencies. Through these connections he has been able to gain a sense of new programming needs that have led to new opportunities to enhance the ADVANCE Program (e.g., Scholarship of Diversity FTEs, the Elsevier grant).

UNIVERSITY-WIDE COMMITTEE ON EQUITY, DIVERSITY AND INCLUSION

Both women and men faculty expressed support for the idea of establishing a campus-wide committee on equity, diversity and inclusion that could address all of the issues and questions of concern to UCI constituents. Such a committee could represent a single campus focal point and voice for discussions regarding gender equity and broader conversations regarding diversity and inclusion, bringing together all of the diverse points of view. At present, these conversations are distributed across a number of

different forums, including the Provost's Management Council, the Deans' Advisory Council, the Vice Provost's Academic Planning Council and the Vice Provost's Academic Enrollment Council. The ADVANCE Director has a seat on all of these decision-making bodies, and plays an active role in priority-setting. The integration of ADVANCE into these key organizational structures is an important indicator of the institutionalization of ADVANCE at UCI. However, the main purpose of these bodies is not diversity, equity and inclusion, but other foci such as resource allocation and investment, meaning that ADVANCE has to find ways to align its interests with those of the administrative structures (e.g., calls for FTEs).

Another reason for considering the establishment of a University-wide committee on Equity, Diversity and Inclusion is the highly decentralized nature of ADVANCE implementation, and the variability of its structures across UCI's Schools. A campus-wide committee could bring greater consistency to critical issues of interest to all members of the UCI community, not only women faculty. Men faculty also have questions and concerns regarding career development and other matters (e.g., recruitment, partner hiring, salary equity) that could be addressed by such a committee. Students also have equity, diversity and inclusion issues that they would like to discuss, and such a committee could provide a forum for them to air their concerns.

A campus-wide committee could become a focal point for gathering and distributing information relating to equity, diversity and inclusion that currently does not exist. Interviewees indicated that it is difficult to gain access to campus-wide information on these subjects, and having a central point of data dissemination would be helpful.

It was stressed by nearly everyone, however, that such a committee needs to have high-level leadership and administrative "clout", by being charged with a specific portfolio and a mission. Women (and men) want to invest their time in activities that make a real difference.

Appendix A: UCI ADVANCE Database

Documents and Reports Representing and/or Analyzing UCI ADVANCE Database

NSF Indicator Data: 2001 – 2008

- Campus Totals of Faculty by Rank and Gender: 2001-2008
- STEM Discipline Faculty by Rank and Gender: 2001–2008
- Non-STEM Discipline Faculty by Rank and Gender: 2001–2008
- Tenure and Tenure Track Newly Hired Women Faculty: 2001–2008
- Voluntary, Non-Retirement Attrition by Rank and Gender: 2001-2008
- Number of Women in Endowed/Named Chairs: 2001-2008
- Number and Percent of Women in Administrative Positions: 2001-2008
- Tenure Review Outcomes by Gender and Academic Year: 2001-2008

Role of UCI Equity Advisors and Impact on Gender Equity:

- ADVANCE Program Equity Advisor Report Analyses: 2001–2007¹⁸

Recruitment of New Women Faculty:

- Analysis of Gender Differences in Faculty Start-Up Packages at UCI: 2004-2007
- Report on Interview Project with UCI Job Candidates: 2005-2007

Retention and Advancement of Women Faculty:

- Final Report on ADVANCE Program Faculty Surveys: 2002 and 2004
- Report on Teaching Loads: 2002-03
- UCI Chair's List Survey¹⁹: 2001-2005
- Final Report on Interview Section of UCI ADVANCE Grant: 2006²⁰

¹⁸ Between 2001-2003, these reports were entitled *Report of New Data Collection Efforts aimed at assessment of UCI's NSF ADVANCE Program*

¹⁹ Reporting on a survey of Department Chairs covering topics including hiring, teaching, retention and advancement

- Exit Interview Data Analysis: 1999-2008
- Mentoring Junior Faculty in the School of Social Sciences:
Evaluation from the Mentee's Perspective (2008)
- Distribution of Full Professors by Gender at Step VI and Above Over Time (2008)
- Report on Distinguished Intellectual Leaders:
Incumbents of Endowed Chairs (2008)
- Building a Learning Organization Based on Gender Equity (2008)

Report on Diversity:

- UCI Faculty Survey on Race Differences: 2006

UCI ADVANCE Presentations:

- Study Group on University Diversity Work Teams
- ADVANCE: Institutional Transformation Recruitment Success at UCI: 2006
- Women as a Percent of Newly Hired UCI Faculty by School during 1995-2001, 2002-2008, and Availability Data

Also included in archival data:

Leading Through Diversity: NSF PAID Partnership for Faculty Equity and Diversity

Department Chair's Retreat Materials: October 10-12, 2007

Inter-institutional Symposium Materials: January 23, 2008

Mentoring: Benefits, Responsibilities and Roles, Phases of Mentoring and Tips

²⁰ See also *Gender Equity in America: An Empirical Study of Psychological and Institutional Responses* (Monroe, Ozyurt, Wrigley, Alexander): 2008

Appendix B: Archival Data Sources

UCI and other UC Policies Pertaining to Diversity and Inclusion

Appointment and Promotion: Professor Series (APM-220)

UCI Career Partners Program

Search Plan and Advertisement AP80-A

Pre-Campus Search Activities Statement AP-80B

Final Search Activities Statement AP-80C

Effective Practices for a Diverse Applicant Pool

Guidelines for Multidisciplinary/Multi-Unit Faculty Recruitment

Guidelines for Chairs and Directors for Promoting a Faculty Culture of Transparency and Inclusion

Faculty Applicant Survey Tracking

Advancing a Culture of Inclusion in APM 210, 240 and 245

Benefits for Domestic Partners

Academic Review Process APM 210-10d

UC Family Friendly Policies

Childbearing Leave

Active Service-Modified Duties

Parental Leave without Pay

Extension of the Eight-Year Probationary Period

Family and Medical Leave

Dependent Care Travel Awards Program

UC Policy on Sexual Harassment

UC Guidelines for Academic and Staff Affirmative Action Compliance

Equity Workshop Topics: New Materials for Mentoring DVD