# Dual-Career Academic Couples 

 What Universities Need to Know

Michelle R. Clayman Institute for Gender Research Stanford University

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 What Universities Need to KnowLonda Schiebinger, Andrea Davies Henderson, Shannon K. Gilmartin

MICHELLE R. CLAYMAN INSTITUTE
for GENDER RESEARCH

STANFORDUNIVERSITY

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The Michelle R. Clayman Institute for Gender Research at Stanford University is one of the nation's oldest research organizations devoted to the study of women and gender. Founded in 1974, the institute promotes gender equality through innovative research and dissemination of key findings to decision makers in universities, business, government, and the broader community.

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ISBN 978-0-9817746-0-2

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## Acknowledgments

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## Acknowledgments

Our thanks to the many people who assisted in this project. Key data analyses and report production were supported by a talented research team at the Clayman Institute: Jema K. Turk, M.P.A., M.A., Manwai C. Ku, M.A., Justine E. Tinkler, Ph.D., and Haley Minick. Special thanks to Professor Susan P. Holmes, Department of Statistics, Stanford University, and Professor Sheila E. Cohen, Stanford School of Medicine, both of whom were part of the design team and important advisors to the project. Professor Lisa Wolf-Wendel from the School of Education, University of Kansas, presented at our first faculty seminar exploring this topic and kindly reviewed our final report. Patricia P. Jones, Dr. Nancy Chang Professor of Biology and Vice Provost for Faculty Development and Diversity at Stanford, gave valuable feedback and support throughout the course of our study. Chris Bourg, Ph.D., Head of the Information Center for Stanford University Libraries, gave critical insight on initial survey design. Rana Glasgal, Associate Vice Provost for Institutional Research and Decision Support at Stanford, gave timely advice and corroborated national faculty data. Dan Ryan, Associate Professor of Sociology at Mills College, skillfully made our charts. Michelle Cale, D.Phil., Clayman Institute Associate Director, assisted with advice, design, and the report rollout.

A special thanks to the four couples who graciously took time out of their busy days and agreed to be profiled for this report. We are also grateful to the universities that took part in this study-without their kind cooperation we could not have gathered the data that form the foundation of this report. Our participating universities are anonymous; universities named here are not necessarily those that were an official part of the study.

We also thank those who kindly offered advice or reviewed this project. These include Nancy Aebersold, John I. Brauman, Liza Cariaga-Lo, Fiona Chin, Sally Dickson, Paula England, John Etchemendy, Laura G. Fisher, Joan Girgus, Ian H. Gotlib, Stephan Graham, Evelynn M. Hammonds, Sarah Heilshorn, Jacqueline Hogan, Nancy Hopkins, Jean Howard, Jerry A. Jacobs, Dale Kaiser, Jon A. Krosnick, Seth Lerer, Sheila O'Rourke, Douglas D. Osheroff, Laura Perna, James D. Plummer, Aron Rodrigue, Sue V. Rosser, Susan Stephens, Abigail Stewart, Jennifer Summit, Jane Thompson, Robert Weisberg, Gavin Wright, and Richard N. Zare. Thanks also to the many people-at Stanford and across the countrywho assisted with our study design.

This study was made possible by the generous support of Michelle R. Clayman, Margaret Earl Cooper, Vicki Bever Cox, the Sakurako and William Fisher Family Foundation, Beth Garfield, Nicholas and Mary Graves, Lorraine Hariton and Stephen Weyl, Susan Heck, Leslie and George Hume, and Stephen and Lisa Nesbitt.

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## Executive Summary

Meeting the needs and expectations of dual-career academic coupleswhile still ensuring the high quality of university faculty-is the next great challenge facing universities. Academic couples comprise 36 percent of the American professoriate-representing a deep pool of talent (Figure 1). ${ }^{1}$ The proportion of academic couples (i.e., couples in which both partners are academics) at four-year institutions nationally has not changed since 1989. ${ }^{2}$ What has changed is the rate at which universities are hiring couples. Academic couple hiring has increased from 3 percent in the 1970s to 13 percent since $2000 .{ }^{3}$ In a recent survey of Canadian science deans, couple hiring emerged as one of the thorniest issues confronting their faculties. ${ }^{4}$ Administrators in this study concur.

FIGURE 1: PARTNER STATUS OF U.S. ACADEMIC WORKFORCE^*

9,043 Full-Time Faculty from 13 Leading Research Universities


Seventy-two percent of full-time faculty in this study have employed partners.
Thirty-six percent have academic partners.

One department chair commented that no other aspect of his job arouses as much controversy as dual-career hiring.

Despite the sizable number of academic couples in the workforce, little institutional and national data exist describing their career trajectories. ${ }^{5}$ Institutional approaches to couple hiring tend to be ad hoc, often shrouded in secrecy, and inconsistent across departments. Faculty tend to be unfamiliar with key issues and solutions, and many know little about their own university's policies and practices.

But change is afoot. Universities across the country have begun devoting attention to dual-career issues. In recent years, a number of conferences and collaborative efforts have sprung up, and university

Support for dual careers opens another avenue by which universities can compete for the best and brightest.
hiring practices are evolving to keep pace. ${ }^{6}$ In the same way that U.S. universities restructured hiring practices in the 1960s and 1970s in response to increased access to higher education and the advent of equal opportunity legislation, institutions are again today undergoing major transitions in hiring practices with respect to couple hiring.

Ten percent of faculty respondents in this study are part of a couple hire, or "dual hire," at their current institutions (this figure includes both recruitment hires and retentions). ${ }^{7}$ Ten percent is a small, but important, proportion of faculty hiring. Universities are in danger of losing some of their most prized candidates if suitable employment cannot be found for qualified partners. In independent internal studies analyzing factors influencing failed faculty recruitment, two prominent U.S. research universities found that partner employment ranked high (number one or two) in lists that included salary, housing costs, and some 14 to 15 other factors. ${ }^{8}$ Similarly, a German study found that 72 percent of German scientists abroad cited "career opportunities for the partner" as a decisive factor for scientists contemplating a return home. ${ }^{9}$

There are three key reasons for taking a new look at couple hiring:

Excellence. Our study suggests that couples more and more vote with their feet, leaving or not considering universities that do not support them. Support for dual careers opens another avenue by which universities can compete for the best
and brightest. A professor of medicine in our survey commented that talented academics are often partnered, and "if you want the most talented, you find innovative ways of going after them."

Diversity. Over past decades, universities have worked hard to attract women and underrepresented minorities to faculty positions and, in many instances, are meeting with success. The new generation of academics is more diverse in terms of gender and ethnicity than ever before. With greater diversity comes the need for new hiring practices. Institutions should not expect new participants to assimilate into current practices built around old academic models and demographics. This undermines innovation, opportunity, and equity. New hiring practices are needed to support a diverse professoriate-and one of these practices is couple hiring.

Quality of Life. Faculty today are a new breed determined more than ever to strike a sustainable balance between working and private lives. Couple hiring is part of a deeper institutional restructuring around quality-of-life issues. To enhance competitive excellence, universities are increasingly supporting faculty needs, such as housing, child care, schools, and elder care, in addition to partner hiring. Attending to quality-of-life issues has the potential to contribute stability to the workplace. Faculty may be more productive and more loyal if universities are committed to their success as whole persons. While often costly up front, assisting faculty address the challenges of their personal lives may help universities secure their investments in the long run.

As a relatively new hiring practice, couple hiring is fraught with complexities and pitfalls. The reality is, however, that 21st century universities increasingly hire couples. One purpose of this report is to help institutions do a better job of partner hiring. To this end, we recommend that universities develop agreed-upon and written policies or guidelines for vetting requests for partner hiring and seeing that process through the university. The ultimate goal is not necessarily to hire more couples but rather to improve the processes by which partner hiring decisions are made.

## Key Findings

Stanford University's Clayman Institute for Gender Research launched a major study of dual-career academic couples in 2006 in an effort to bring data to bear on current debates about couple hiring. As part of this study, we collected survey information from more than 9,000 full-time faculty at 13 leading U.S. research universities (for a discussion of sample and methods, see Appendix A). This survey was supplemented with the collection of hiring policies from participating universities and interviews with university administrators. Our unique data set provides fresh insights into the place of couples in the academic workforce as well as university recruiting and retention practices. Key findings are as follows:

- Partners matter: Faculty members' career decisions are strongly influenced by partner employment status. Thirty-six percent of full-time faculty at the institutions we studied have academic partners; these we call "dual-career academic couples." In addition, 36 percent of our survey respondents have employed (but non-academic) partners. This means that 72 percent of survey respondents overall have employed partners whose careers need to be taken into consideration when recruiting.
- As a strategy to enhance competitive excellence, couple hiring (or dual hiring) is on the rise. Dual hires comprise an increasing proportion of all faculty hires over the last four decades (from 3\% in the 1970s to $13 \%$ in the 2000s), whereas the proportion of academic couples has remained relatively constant. Overall, 10 percent of faculty enter the academy through dual hires. Ninety-three percent of dual hires work at the same institution.
- Couple hiring can help build a more diverse, equitable, and competitive workforce, especially with regard to gender.
- Women are more likely than men to have academic partners (40\% of female faculty in our sample versus $34 \%$ of male faculty). In fact, rates of dual hiring are higher among women respondents than among men respondents ( $13 \%$ versus $7 \%$ ). This means that couple hiring becomes a particularly relevant strategy for the recruitment and retention of female faculty.
- Women in academic couples report that their partner's employment status and opportunities are important to their own career decisions. Not only do women more often than men perceive a loss in professional mobility as a result of their academic partnerships ( $54 \%$ for women versus $41 \%$ for men), but they actively refuse job offers if their partner cannot find a satisfactory position. In our study, the number-one reason women refused an outside offer was because their academic partners were not
offered appropriate employment at the new location. These findings have significant implications for institutions seeking to recruit top women.
- Couple hiring is important to attract more female faculty to fields where women are underrepresented, such as the natural sciences and engineering. Academics practice "disciplinary endogamy"; that is to say, they tend to couple in similar fields of study and are often found in the very same department. Endogamy rates are high in the natural sciences, particularly among women. Fully 83 percent of women scientists in academic couples are partnered with another scientist, compared with 54 percent of men scientists.
- Historically, men more than women have used their market power to bargain for positions for their partners. Men comprise the majority (58\%) of "first hires" (or the first partner hired in a couple recruitment) who responded to our survey. They make up only 26 percent of second hires (meaning that women are $74 \%$ of second hires). However, gender ratios of first and second hires may be changing with time, which suggests that there is an increasingly equitable share of bargaining power among women and men.
- An important finding is that recruiting women as first hires breaks the stereotype of senior academics seeking to negotiate jobs for junior partners. Remarkably, more than half (53\%) of female first hires who are full professors are partnered with male academics of equal rank. By contrast, only 19 percent of male first hires who are full professors seek positions for women who are their equals in academic rank. Administrators need to consider carefully how dual-hire policies might be refined to help their institutions achieve greater gender equality.
- Couple hiring may help to advance not only gender equity but also racial/ ethnic diversity, which enhances competitive excellence. Women and men from all backgrounds have academic partners; in fact, among underrepresented minority respondents to our survey, the gender difference in rate of academic coupling disappears ( $30 \%$ of minority women and $32 \%$ of minority men are partnered with another academic). And although the rate of academic coupling among underrepresented minority faculty is generally lower than that among faculty overall ( $31 \%$ versus $36 \%$, respectively), the rate of dual hiring is the same ( $10 \%$ of all underrepresented minority respondents have been part of a dual hire at their current institutions). Dual hiring, in other words, may support institutional efforts to compete for the brightest talent across the widest spectrum.
- Universities are in danger of losing prized candidates if suitable employment cannot be found for a partner. When couples have choices, they prefer to live together and take jobs where each partner can flourish professionally. A full 88 percent of faculty who successfully negotiated a dual hire at their current institution indicated that the first hire would have refused the position had her or his partner not found appropriate employment. Slightly more than 20 percent also report that they or their partner have taken a job at a less prestigious institution to improve the couple's overall employment situation.
- Universities need to understand how policies and practices affect faculty attitudes toward dual hires on their campuses. Most survey respondents marked "I don't know" in response to the question: Does your current institution have a written hiring and retention policy in place for dual-career academic couples? However, the one institution in our study with the highest rate of faculty awareness also enjoys the highest rate of perceived institutional and departmental support for accommodating academic couples. We also find that schools with written policies have higher rates of perceived support for academic couples than do schools without written policies. Thus, awareness and clarity are critical to creating a positive climate overall.
- One problem with couple hiring is that a stigma of "less good" often attaches to a second hire. Study data suggest, however, that second hires, when full-time faculty members, are not less productive than are their disciplinary peers.


## Policy Recommendations

U.S. universities are in the midst of a major transition in hiring practices. Couples comprise a significant proportion of the academic workforce, and couple hiring, when done properly, can support important institutional objectives. Based on our findings, we offer the following recommendations:

Develop a dual-career academic couple hiring protocol. Universities have much to gain by developing agreed-upon, written protocols or guidelines for the processes whereby requests for partner hires flow efficiently through the institution. Each institution needs to develop policies that are right for it. Well-developed protocols increase the transparency and fairness as well as the speed with which departments can vet potential candidates. Written protocols may also help cultivate departmental reciprocity in partner hiring.

Think of the university as an intellectual and corporate whole. Finding an appropriate fit for a qualified partner is one of the most difficult aspects of dual hiring
and requires cooperation among departments across the university. Couple hiring may be an instance where the whole becomes more than the sum of its parts, and faculty should be encouraged to think of the university not as a set of autonomous departments but as an intellectual and corporate whole.

Use dual hiring to increase gender equality. Our data and practices at one of our participating universities suggest that recruiting women and underrepresented minorities as first (rather than second) hires may help universities address both diversity and equity issues. Women more than men tend to request positions for partners of equal academic rank.

Budget funds for dual hiring. Couple hiring is now part of the cost of doing business. Universities need to budget funds for partner hiring to increase the speed and agility with which they can place qualified partners.

Communicate with faculty. A general awareness of institutional goals and priorities as well as policies and practices surrounding couple hiring can lead to greater cooperation across the university as individual cases arise. The process of developing or refining protocols provides an excellent opportunity to saturate the scholarly community with information about partner hiring and to build greater consensus.

Make the partner issue easier to raise. Job candidates currently have much to lose by discussing the employment needs of a partner too soon (fearing that preference may consciously or unconsciously be given unencumbered candidates). At the same time, universities have much to lose by not finding out about partners early enough to act. Universities that are dual-career couple friendly should signal this in job announcements, recruitment materials, and university websites.

Interview potential partner hires. Departments asked to consider hiring a partner must do so carefully. Partners should go through a department's full review process. This will help build consensus within the department and, should the candidate be successful, contribute to a warm welcome for the new colleague.

Negotiate partner positions fully up front. Among dual-hired faculty who were dissatisfied with at least one aspect of the process, 27 percent thought that they did not receive what was promised during negotiations. Universities need to step up to dual hiring and make decisions about where and how partners will-or will
not-fit into a particular institution at the time of hire. All promises need to be made in writing before either partner signs a contract.

Collaborate with neighboring institutions. The many Higher Education Recruitment Consortia (HERCs) springing up around the country provide new opportunities for institutions to coordinate job opportunities. It is important to publicize local HERCs effectively on campus so that dual-career couples, faculty, department chairs, and deans take advantage of these networks.

Develop dual-career programs. Universities should hire dedicated staff or outside consultants to assist faculty relocate. For partners of new or current faculty seeking academic positions, programs should appoint a senior faculty member to serve in an official capacity as special assistant, vice provost, or the like. This administrator will work with departments to place partners. For non-academic partners seeking employment, program staff or consultants should be available to assist in the on- or off-campus job search. Program staff may help all faculty with quality-of-life issues, such as locating good-quality housing, daycare, elder care, and schools in the area.

Evaluate dual-career programs. Universities need to collect data and evaluate their programs in order to (1) assist universities in overall strategic planning and (2) ensure equitable treatment of faculty partners-both academic and nonacademic.

## Structure of the Report

It is our hope that this data-driven report will assist universities, departments, faculty, and academic couples themselves in understanding the growing phenomenon of dual-career academic couple hiring. This report has three parts:

Part I. Partnering Patterns in the Academic Workforce identifies types of academic partnerships and presents new data concerning dual-career academic couples.

Part II. Academic Couples: Career Paths and Priorities focuses on academic couples, their culture and values, and how these relate to university hiring.

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## PART 1

## Partnering Patterns in the Academic Workforce

To set the stage for discussions about successful recruitment and retention in today's academic market, this study begins by exploring vital interrelationships between professional status and personal life. A liberal market economy assumes that professionals are meritorious individuals free to move to maximize their potential, and for many decades employers built recruitment programs around these assumptions. Historically, however, "free-standing individuals" have, in fact, been male heads of households with relatively mobile family units. ${ }^{10}$ Now that women are joining the professional world in ever-greater numbers, these assumptions, and the practices and cultures built around them, require rethinking. Moreover, the majority of all professionals today are partnered with other professionals such that male and female professors both find themselves part of dual-career households-with all the stresses and strains that can entail. Dual-career couples need to maximize not one but two careers. Employers in industry, government, and universities are finding that old hiring practices do not always succeed in this new marketplace and are crafting new ways to anchor top talent to their institutions.

New hiring policies require a clear understanding of workforce demographics as well as the cultural practices and values of faculty in the 21st century. Drawing from survey findings, this section provides a snapshot of the current academic workforce and the place of academic couples in that workforce. For purposes of analysis, we look at the types of partnerships faculty in our study have chosen and identify four basic partner types (based on both partner and employment status): employed (non-academic) partners, stay-at-home partners, no partner (single), and academic partners (Figure 1). This section begins by identifying and analyzing these partnerships and how they figure into universities' efforts to recruit and retain faculty. Next we zero in on academic couples. We define three ways that faculty with academic partners enter universities: as dual hires (sequential or joint), independent hires, and solo hires. Each of these hire types needs to

BOX 1: PARTNER STATUS OF UNDERREPRESENTED MINORITIES


Seven percent of faculty respondents in our sample are from underrepresented racial/ethnic backgrounds. ${ }^{11}$ This includes faculty who are Black/African American, Hispanic/Latino/a, or Native American/Alaskan, as well as those who marked multiple underrepresented racial/ethnic groups. Women comprise half of this group, which is proportionally higher than is the percentage of women among other faculty ( $50 \%$ versus $41 \%$, respectively). ${ }^{12}$

Ten percent of underrepresented minority faculty have a partner who stays at home, in contrast to 13 percent of all other faculty respondents. Sixty-five percent of minority faculty are in dualcareer relationships: 34 percent
have working (non-academic) partners and 31 percent have academic partners. There is no significant difference in rates of academic coupling between women and men faculty from underrepresented racial/ethnic backgrounds- 30 percent of women and 32 percent of men are partnered with another academic. Importantly, although underrepresented minorities are less likely than all other faculty to have an academic partner, rates of dual hiring are the same. Ten percent of faculty from both groups report entering their current institution as part of a couple hire. Partner hiring, in other words, may support institutional efforts to compete for the brightest talent across the widest spectrum of applicants.
be understood, as universities refine dual-hiring policies and practices. We also consider changes in couple hiring over time, with attention to how these developments relate to larger demographic shifts. Finally, we highlight the important topic of disciplinary endogamy. Not only do academics form partnerships, they frequently do so within the same discipline. Here we are interested in how understanding where women and underrepresented minorities cluster can help universities boost diversity.

## Employed (Non-Academic) Partners

Partners matter: A faculty member's willingness to move or consider a job is strongly influenced by his or her partner's employment status, as well as both partners' shared goals and plans. ${ }^{13}$

The first partner type we identify is that of faculty members whose partners actively pursue employment, even careers, but who are not themselves academics. These employed (non-academic) partners may be lawyers, artists, school teachers, software engineers, CEOs, administrators, construction workers, and so forth.

Couples of this type make up 36 percent of our survey sample. These couples, like dual-career couples more generally, experience the pressures of dual-career households and the limited mobility that might entail. In some instances, a partner who works in finance, for example, must be located in a major metropolitan area, such as New York, Los Angeles, or Chicago. Physicians are theoretically fairly mobile in that they can join a practice most anywhere, but relocating is still difficult, time-consuming, and costly. Lawyers may not have the right qualifications to practice in a different state or may need to pass a new state bar examination. These factors can set sharp limits on academic partners' careers.

One of our interests in this study is understanding where academics in particular types of partnerships are located in the academy. Faculty with working partners are found, of course, at every professorial level, with about one-third (34\%) at the rank of full or endowed professor. However, for faculty women with employed, non-academic partners, the largest proportion is found at the starting point of their careers ( $38 \%$ are assistant professors). Women in this couple category are almost twice as likely as men in this group to be recent Ph.D.s or the equivalent ( $28 \%$ of women received their degree after 2000, versus $15 \%$ of men). It is important, therefore, that universities be aware of and prepared to assist with partner employment issues when seeking to recruit the new generation of top faculty talent-a topic we will return to below.

BOX 2: PARTNER STATUS OF SAME-SEX COUPLES

*Percentages do not add to 100 due to rounding.

Same-sex couples have partnering patterns similar to those of heterosexual couples. Some same-sex academic couples, however, may not be as successful as other survey respondents in securing partner hires. Gay men do better than lesbians. Gay men respondents in our survey comprise 4 percent of all partnered men and 4 percent of dual hires. Lesbian respondents comprise 7 percent of all partnered women, but only 4 percent of women who negotiate a dual hire (despite being equally as likely as other partnered women to have an academic partner).

Several factors help to explain this disparity. A few schools in our survey are located
in states where legislation prevents offering benefits to unmarried couples, which, in effect, blocks active hiring of same-sex partners. This makes it difficult for faculty to negotiate for their partners. Another consideration is that gay and lesbian faculty must be "out" in order to negotiate dual hires. Gay and lesbian faculty therefore give careful thought to geographic location and the types of attitudes they are likely to encounter when applying for jobs. ${ }^{14}$ A gay male engineer noted that "dual-career hiring policies for same-sex couples was very high on my list of requirements for institutions where I was thinking about applying for tenure-track positions."

## Stay-at-Home Partners

Thirteen percent of our survey respondents have partners who are not active in the paid labor force. Men and women have very different partnering patterns in this regard (Figure 2). Most striking is that 86 percent of academics with stay-athome partners are men. These men face particular trade-offs in their careers. On the one hand, they generally have someone who manages the household. This can be tremendously helpful. They also tend to be more mobile. Even though families, especially those with children, do not like uprooting and making a new life for themselves in a new community, they often do. On the other hand, these families must survive on one salary.

FIGURE 2: MEN AND WOMEN HAVE DIFFERENT PARTNERING PATTERNS*キ


Women are more likely than men to have academic partners. Men are more likely than women to have stay-at-home partners, whereas women are more likely to be single.

There are some generational issues of note. Among faculty men with stay-athome partners, nearly 40 percent represent the "older generation" (completing graduate work in the 1970s or earlier) and 14 percent are recent graduates (earning degrees after 2000).

It is not clear that partners who do not work outside the home do so by choice. Forty-eight percent of men and 69 percent of women faculty with stay-at-home partners report that their partners had difficulties finding an appropriate job in the area.

## Singles

Fourteen percent of survey respondents report that they are currently single. Consistent with national trends, ${ }^{15}$ women in our survey are more likely to be single ( $21 \%$ ) than are men (10\%). It is also striking that underrepresented minority faculty are more likely than other faculty to be single ( $25 \%$ among underrepresented minorities-see Box 1). In some instances, single status is a function of youth. Almost 30 percent of single men and women, for example, earned their degrees since 2000. But a number of academics remain single throughout their careers, or are widowed or divorced. Almost one-third of single men and one-quarter of single women are currently full professors.

For some single faculty, careers often come first. Seventeen percent of single women report that their professional goals are more important than are their personal goals (versus $5 \%$ of partnered women); similarly, 21 percent of single men give priority to professional over personal goals (compared with $7 \%$ of partnered men). Many single faculty, however, also have family concerns, such as parenting a child or caring for an aging relative. These concerns are no less salient for single faculty than they are for partnered academics.

## Academic Couples

Academic couples comprise 36 percent of our survey respondents. Women faculty are more likely than men to be in an academic partnership (40\% versus 34\%, respectively—Figure 2). ${ }^{16}$ As noted earlier, we classify faculty in this group according to three ways that they enter universities: as dual hires, independent hires, and solo hires (Figure 3).

## Dual Hires

Ten percent of all respondents to our survey reported that they participated in a dual hire at their current institution(s) as part of either a recruitment or retention package. One senior professor of psychology commented that he and his partner "are very fortunate to have jobs in the same place. I feel that we were both hired fairly independently based on merit, and if dual partner concerns came into the equation, this was not a highly visible concern." Dual hiring is increasingly an important route into the academy for all faculty, and for women in particular. Significantly, 13 percent of women respondents enter as dual hires compared with 7 percent of men respondents.

FIGURE 3: ACADEMIC COUPLES, BY HIRE TYPE*


Overall, 10 percent of faculty enter the academy through dual hires.

Dual hires are appointed either "sequentially" or "jointly." The majority of dual hires are appointed sequentially (Figure 3). Typically, one partner, the "first hire," receives an initial offer and then negotiates for his or her partner. This second partner-who enters the deal through a series of negotiations that generally include a full-blown campus visit and interview-we call the "second hire" in order to overcome the negative terms often applied to this partner, such as "trailing spouse." ${ }^{17}$

Dual hires also include "joint hires," or that small but growing number of couples who are a known couple and are recruited together by a university-there is no first or second hire. Couples recruited jointly comprise just 2 percent of all respondents to our survey. These couples often market themselves and are approached by universities as a package. Both partners may be stars, in which case everyone wants them and hiring decisions are easy. If each partner is not happily settled at his or her current institution, universities can recruit the couple strategically by offering both attractive positions.

## BOX 3: PARTNER STATUS OF UNIVERSITY ADMINISTRATORS

University administrators not only help facilitate dual hires, in many instances, they themselves have academic partners and were hired at their current institution as part of a couple hire. Nine percent of respondents who identified themselves as chairs, deans, or upper administrators were part of a dual hire. Dual hires, moreover, hold the same
types of administrative posts as do other faculty: Of the 876 dual hires in our survey, 6 percent are department heads; 1 percent are deans; and 1 percent are in upper administration as provosts, vice provosts, and the like. This matches the frequency of administrative posts among the full sample of respondents.

Overall, 75 percent of dual-hire respondents (both sequential and joint) report that they and their partners are employed in tenured or tenure-track positionsthe gold standard of academia. ${ }^{18}$ This figure, however, varies widely across the schools we studied, from a low of 55 percent at a private university to 80 percent or higher at five of our 13 schools (three public and two private).

Some faculty who are dual hires work at different institutions (see A Successful "Joint" Hire at Neighboring Universities, p. 18). However, most dual hires work at the same institution (93\%), meaning that universities need clear policies for these types of hires. This contrasts with "independent hires" (described below), in which only 61 percent work at the same institution.

Gender differences in sequential couple hiring are important to consider. Historically, men more than women have used their market power to bargain for positions for their partners. Men comprise the majority ( $58 \%$ ) of first hires who responded to our survey and 26 percent of second hires. ${ }^{19}$ However, gender ratios of first and second hires may be changing with time (see Hiring Trends below), which suggests that there is an increasingly equitable share of bargaining power among women and men. Administrators need to consider how their partner hiring policies influence gender equity at their institution (see University Programs, Policies, and Practices below).

## Jennifer and Rick

## DUAL HIRE WITH SEQUENTIAL FIRST AND SECOND HIRES



Jennifer L. Eberhardt, Ph.D., Associate Professor of Psychology, Stanford University
R. Richard Banks, J.D., Jackson Eli Reynolds Professor of Law, Stanford University

Iike many academic couples, Rick Banks and Jennifer Eberhardt fell in love in graduate school. After earning their degrees from Harvard (Rick in law and Jennifer in psychology), Jennifer entered the academic job market while Rick pursued work as a lawyer. Although not yet an "academic couple," they nevertheless experienced dual-career constraints. Their commitment to supporting both ca-reers-while maintaining a single household-would be tested over the next decade when new job opportunities brought cross-country moves.

Jennifer and Rick started their careers in the San Francisco Bay Area. Jennifer earned her degree a year before Rick. After a postdoctoral appointment at the University of Massachusetts, Amherst, during Rick's third and final year of law school, Jennifer moved to a two-year postdoctoral position at Stanford, while Rick began practicing law in San Francisco. It was only a matter of time before the job market would spur another move. One year into her postdoc, Jennifer landed a faculty position in psychology and African and African American Studies at Yale University. Rick soon joined her in New Haven, where he "made a habit of commuting to other states" for work. While still living in New Haven, he completed a fellowship at Harvard, and then clerked for a federal judge in New York.

In 1998, Rick entered the law professor job market and was offered a position as an assistant professor at Stanford Law School. Rick had other offers, but when Stanford offered his wife a faculty position as well, they decided to head west. At the time, the first of their three sons was an infant, and a cross-country commute was out of the question. Stanford offered Jennifer a four-year, non-tenure-track position as assistant professor in the psychology department.

Over time, their decision to join the Stanford faculty proved to be the right one. Rick received tenure in 2004. Jennifer, whose research ranges from social neuroscience to racial stereotyping and crime, recently earned tenure as well. "Working at the same institution is critical," says Banks, "or more precisely, being able to live in the same place is critical."

## Jagesh and Sangeeta

## A SUCCESSFUL "JOINT" HIRE AT NEIGHBORING UNIVERSITIES



Jagesh V. Shah, Ph.D., Assistant Professor of System Biology and Medicine and Health Sciences and Technology, Harvard Medical School and Brigham and Women's Hospital

Sangeeta N. Bhatia, M.D.,
Ph.D., Associate Professor of Health Sciences and Technology and of Electrical Engineering and Computer Science, Massachusetts Institute of Technology

Sangeeta Bhatia and Jagesh Shah met in graduate school. Ambitious and passionate about their work, they both envisioned successful careers as tenured faculty engaged in world-class medical and technology research. They also hoped to build a family together. Could they realize both goals? Only time would tell.

After graduate school, Jagesh supported Sangeeta's job offer at the University of California at San Diego (UCSD) by accepting a postdoctoral position on the same campus rather than pursuing other positions to bolster his own career development. When Jagesh was ready for the job market, the couple did a national search and applied to a number of advertised positions. In addition, Sangeeta (by then a tenured professor at UCSD) let various mentors know that they were interested in finding two faculty positions together where they could pursue their research interests.

They "walked away from several bad offers" before securing a "joint" offer from the Massachusetts Institute of Technology (MIT) and Harvard University. "The 'bad offers' were not materially bad," Sangeeta clarifies, "but ones that did not consider that this was a dual recruitment where both of us needed to thrive and be valued." The Harvard-MIT Division of Health Sciences and Technology (HST), where they had done their graduate work, succeeded in recruiting both professors-an administrative challenge that, in this case, required coordinating the hiring process at two separate institutions. Joint hires allow universities to hire strategically and, with careful planning, attract top talent. In this case, HST created a competitive solution by identifying departments at Harvard and MIT interested in each scholar. After job talks and interviews, Sangeeta and Jagesh said "yes" to faculty positions.

With their extended families located in the Boston area, the scales tipped in MIT/Harvard's favor (they turned down competitive counteroffers from UCSD). "Being a professor was just one part of the lives we wanted to have," said Sangeeta. They now live and work in the Boston area, where they are raising their two young children.

Differences in rank between women and men in sequential hires are also significant (Figure 4). Among first-hire respondents, men are more likely than women to be well-established senior professors. Both men and women second hires, by comparison, tend to be junior ranking. Across all four groups (men and women first and second hires), female second hires are most likely to hold off-tenuretrack positions (such as research associate or lecturer). ${ }^{20}$

FIGURE 4: CURRENT RANKS OF FIRST AND SECOND HIRES, BY GENDER*キ


Nearly half of men first hires are senior-ranking faculty versus just over one-third of women first hires. Men and women second hires, by comparison, tend to be juniorranking faculty.

We see a greater proportion of second hires in off-tenure-line ranks when we examine partner rank data provided by our first-hire respondents only. This represents a second way of evaluating second-hire outcomes, insofar as these data are quite distinct from those provided by our second-hire survey respondents (all of whom are full-time faculty). Among partners of first hires, 41 percent are in off-tenure-line positions, compared with 17 percent of the second hires who responded to our survey (for a discussion of sampling methods, see Appendix A). However, by focusing on full-time second hires in this study, we are able to show the characteristics and consequences of dual hires when institutions are willing to make a long-term investment in the couple based on partner qualifications, department priorities, and available funding (Figure 4 and see Types of Positions below).

There are fewer rank differences between men and women joint hires. Consistent with the "star quality" of many joint hires, both female and male respondents who identified themselves as joint hires tend to be concentrated at the highest ranks (Figure 5).

FIGURE 5: CURRENT RANKS OF JOINT HIRES, BY GENDER*


In terms of how actual couples in heterosexual relationships are paired by rank (Figure 6), our data suggest that senior males often seek employment for more junior female partners, which in the past has "fed" the stereotype of "trailing" (i.e., less accomplished) spouses (even as female partners may, in fact, be quite accomplished but at a junior rank). Among senior male first hires, 26 percent are partnered with associate professors, 11 percent are partnered with assistant professors, and 23 percent are partnered with lecturers or adjunct faculty. Only 19 percent of senior men seek positions for women who are their equals in academic rank.

Women first hires, by contrast, break the stereotype of senior academics seeking to negotiate jobs for junior partners. More than half (53\%) of first-hire women who are full or endowed professors are partnered with academic men of equal rank. ${ }^{21}$ Thus, recruiting women first hires may help universities achieve greater gender equality.

Men and women first hires at the assistant professor level also break the traditional dual-hire mold; 40 percent of women and 38 percent of men at this level seek to place partners of equal rank to their own. In fact, male assistant professors are significantly more likely to bring a female partner of equal status to a dual-hire negotiation than are male full or endowed professors (Figure 6).

## Independent Hires

Seventeen percent of all respondents to our survey are in an academic partnership but secured employment independent of their couple status, at the same or neighboring institution(s). These respondents comprise our group of "independent hires." In these cases, either each partner replied to separate advertisements for positions and was hired without mention of a partner, or each already held a faculty position at their current institution(s) before they met and fell in love. Only 20 percent of respondents fall into this latter group; the vast majority of independent hires formed a partnership before each was

Recruiting women as "first hires" (or the first partner hired in a couple recruitment) breaks the stereotype of senior academics seeking to negotiate jobs for junior partners and may help universities achieve greater gender equality.

FIGURE 6: PARTNERING PATTERNS AMONG FIRST AND INDEPENDENT HIRES, BY GENDER AND CURRENT RANK*キ


At the highest ranks, and among both first and independent hires, women are significantly more likely than men to be paired with partners of equal rank.
hired and faced the problem of finding jobs together. Coordinating jobs in this fashion (without specifically negotiating for a second partner) is not easy, and only 61 percent find work at the same university. Independent hires are also less likely than dual hires both to hold tenured or tenure-track positions. However, partners of respondents in this hire category are also less likely to be qualified for a ladder position at the universities in our survey: 82 percent of partners of independent hires hold a Ph.D., M.D., J.D., or the equivalent, versus 94 percent of dual-hire partners.

When looking at the rank of independent hires, men are significantly more likely to be senior ranking than are women (Figure 7)—a trend we continue to see across major partnership groups and consistent with the characteristics of the overall sample (see Appendix A).

Patterns of couple rank-equivalence among independent hires are similar to those among first hires (see Figure 6). High-ranking women again lead the way in partnering with faculty of equal status: 69 percent of women full professors are coupled with men of equal rank, whereas only 36 percent of male full professors are coupled with women of equal rank. ${ }^{22}$ The majority of male professors at all ranks have female partners of a more junior rank than their own.

FIGURE 7: CURRENT RANKS OF INDEPENDENT HIRES, BY GENDER*


## Peter and Kim

## INDEPENDENT HIRES



Peter Heaney, Ph.D.,
Professor of Geology,
Department of Geosciences, Pennsylvania State University

Kim Cook, B.M., M.M., Professor of Music in Cello, Pennsylvania State University

Kim Cook, Professor of Music in Cello, and Peter Heaney, Professor of Geology, are an academic couple at the Pennsylvania State University. But they did not begin their Penn State careers this way.

Kim, a graduate of Yale's School of Music, began her academic career serving as principal cellist with the São Paulo State Symphony in Brazil. After a brief period as an assistant professor at New Mexico State University, she chose to come to Penn State in 1991 because she wanted the opportunity to build a cello studio at a major university. The move to Penn State was simplified by the fact that Kim was single at the time. Over the course of a dozen years, her studio has attracted cellists from around the world. Despite these successes, Kim started seriously "thinking about leaving this job to be in a place where I could meet someone."

Peter arrived on campus seven years after Kim. He was also single. Having done his doctoral work at Johns Hopkins University, Peter taught for seven years at Princeton. When Penn State offered him a tenured post in "one of the best geoscience departments in the country," he grabbed it, knowing that positions in mineralogy are scarce. In his pursuit of tenure, Peter noted that "I focused more on my career than on my personal life." His current position allows him to pursue his research on how certain minerals clean up groundwater polluted with toxic metals.

After many successful years at Penn State, Kim and Peter finally met in 2004 and married in 2005. Both agree that having "a balance between career and personal life" is becoming increasingly important to them. In fact, they believe that they would have made different job choices had they met earlier in their careers. If they had met while Peter was at Princeton and Kim at Penn State, they each say they would have given up their faculty positions to work near the other. But this is not a concern for them now. As an academic couple working happily at the same school, they agree that they are "less likely to go on the job market."

## Solo Hires

"Solo hires" are those respondents to our survey who identify their partner as an academic-but one who is not currently employed in an academic position. For lack of better nomenclature, we call them "solo hires," meaning that only one partner has secured academic employment (partners, of course, may have found work outside academia). Solo hires comprise 9 percent of the respondents in our survey. Approximately half ( $48 \%$ ) of the partners of solo hires do not hold a Ph.D. or professional degree and are not necessarily qualified to be employed in tenure or tenure-track positions at the universities we surveyed. But of the 52 percent who do hold advanced degrees, approximately one-third (31\%) continue to search for faculty positions. Solo hires whose partners continue to look for academic jobs are likely to be easily recruited away if another institution can offer a partner an appropriate academic position.

Rank differences between solo hire women and men mirror those between independent hire women and men (Figure 8).

FIGURE 8: CURRENT RANKS OF SOLO HIRES, BY GENDER*


## Susan and Thomas

## A "SOLO" HIRE



Susan Rodger, Ph.D.,
Associate Professor of the Practice of Computer Science, Duke University

Thomas Narten, Ph.D., Senior Software Engineer, IBM

Thomas Narten and Susan Rodger met during their graduate school years at Purdue University. Even before they finished their degrees in computer science, they planned to go on the job market together in the hopes of finding positions at the same school or nearby universities. Thomas (who was one year ahead of Susan in their doctoral program) accepted a postdoctoral fellowship at Purdue to give Susan time to complete her Ph.D. Once both degrees were in hand, they applied for faculty positions across the country and found tenure-track offers in computer science at two universities within commuting distance in Upstate New York-Susan at Rensselaer Polytechnic Institute and Thomas at the State University of New York at Albany.

Although the couple was not looking to move, Susan learned of a position at Duke University that was a perfect fit for her. Both agreed that this new position, which focused on computer science education, was an excellent career move for Susan, who was already developing software experimenting with theoretical concepts. Thomas also felt ready to look for a new job and investigated opportunities near Duke, but outside academia. The faculty position at Duke had another alluring feature: Susan and Thomas were planning to start a family, and Duke would bring them closer to their own extended families.

To help the couple relocate, Duke offered Thomas a visiting professor position for one semester while he looked for work in the area. This was an ideal scenario for Thomas, who was interested in working for IBM but had to wait for the company to lift a hiring freeze. After Susan and Thomas settled into their first semester at Duke, IBM made Thomas an attractive offer.

Now an associate professor at Duke, Susan is a faculty member whom we define as a "solo hire"; that is to say, Susan and Thomas are an academic couple where one partner is not currently employed in an academic position. Theirs is a vibrant, dual-career household with two children. Although Thomas works on "issues that he loves" at IBM, his passion for teaching remains, and "down the road" he may once again search for a faculty position.

## Hiring Trends

Our data suggest that dual hires have comprised an increasing proportion of all faculty hires over the past four decades (Figure 9), even as the proportion of academic couples nationally has remained constant since such data were first collected in 1989. ${ }^{23}$ Among faculty respondents who were hired to their current institutions in the 1970s, 3 percent report that they were part of a dual hire; among faculty respondents hired since 2000, 13 percent were part of a dual hire.

FIGURE 9: DUAL HIRES AS A PROPORTION OF ALL RESPONDENTS HIRED EACH DECADE ${ }^{\ddagger}$


Dual hires represent 10 percent of all respondents. The proportion of dual hires has significantly increased from 3 percent in the 1970s to 13 percent in the 2000s.

Of men and women who identified themselves as a first or second hire at their current institutions in the 1980s, 1990s, and 2000s, men are more likely than women to be first hires, regardless of decade. However, in the 1980s, being a man increased the odds of first-hire status by a factor of 8, whereas in the 2000s, the odds ratio drops to 3 (Figure 10). ${ }^{24}$ Thus, our data indicate that the gender gap in the likelihood of being a first hire is narrowing with time, although small sample sizes limit the statistical significance of this trend.

Among all respondents to our survey who were part of a dual hire at their current institutions at any point in the last several decades (including sequential and joint hires), 39 percent are currently full or endowed professors, 25 percent are asso-

FIGURE 10: MEN-TO-WOMEN ODDS RATIO OF BEING A FIRST HIRE VERSUS A SECOND HIRE


Among sequential dual hires, men are still more likely than women to be a first hire, but the gender gap may be narrowing with time.
ciate professors, and 29 percent are assistant professors. However, to examine where dual hiring actually "happens" in terms of rank, we analyzed respondents who were recently part of a dual hire (i.e., anytime since 2000). Among these respondents, nearly half ( $46 \%$ ) are assistant professors, which is, in fact, the rank at which most hiring occurs for all academics ( $55 \%$ of all recent hires in our sample are assistant professors). In this group, women are more likely than men to be assistant professors (Figure 11).

FIGURE 11: CURRENT RANKS OF DUAL HIRES SINCE 2000, BY GENDER


## BOX 4: PERCENTAGE OF WOMEN IN U.S. ACADEMIC WORKFORCE ${ }^{\ddagger}$

The increase in academic-couple hiring parallels the increase of women hired as professors at U.S. colleges and universities. Before the coming of equal opportunity in the 1960s and 1970s, women worked in and around universities, but few were hired as professors in their own right. ${ }^{25}$ In a world where there were few women, there could be little couple hiring. However, as women entered the workforce as professors, couple hiring increased for men as well as women.


What does the future hold for U.S. universities? The most striking fact about the newest generation of academics is its diversity in terms of gender and ethnicity. Women comprise 53 percent of recent Ph.D.s in our sample versus 40 percent from the 1980s, which is consistent with national data on degree attainment rates by sex. ${ }^{26}$ Simply put, there are more women to recruit now-as first hires or otherwise-than ever before. Similarly, there are more faculty from underrepresented racial/ethnic backgrounds to recruit now than ever before; their proportionate share of degrees has doubled from the 1980s to the 2000s (from $5 \%$ to $11 \%)$. New hiring practices are needed to help build a professoriate that is aligned with these major demographic shifts. Given that more than one-third of academics in the newest generation have academic partners, dual hiring is and will continue to be one of many options to draw top faculty from this increasingly diverse talent base.

## Disciplinary Endogamy

Not only do academics fall in love and form partnerships, they frequently do so within the same disciplines. What is striking and important about disciplinary endogamy is where women and minorities cluster. As universities strive to boost diversity, it is helpful to understand where couple hiring may enhance that goal.

Figure 12 shows that faculty with academic partners are found across all academic fields. The natural sciences, social sciences, and humanities have the highest representation of faculty with academic partners.

FIGURE 12: PERCENTAGE OF RESPONDENTS WITH ACADEMIC PARTNERS, BY FIELD AND GENDER


The rate of academic partnering is highest for women in the natural sciences and for men in the humanities.

Astonishingly, 63 percent of all academic couples work within the same general field of inquiry-humanities, medicine, science, law, and the like. As Figure 13 shows, the natural sciences stand out in this respect. Eighty-three percent of women scientists and 54 percent of men scientists (in academic couples) are partnered with another scientist. ${ }^{27}$ Other fields where couple hiring may be key to recruiting and retaining women include law (where 79\% of women professors in academic couples are partnered with another law professor versus $38 \%$ of men), the humanities, medicine, and engineering.

FIGURE 13: PERCENTAGE OF ACADEMIC COUPLES IN SAME FIELD, BY FIELD AND GENDER ${ }^{\ddagger}$


Eighty-three percent of women scientists in academic couples are partnered with another scientist.
$\ddagger$ See Appendix $D$ for methods notes.

Not only do academics partner within the same field of study, they also frequently couple in the same departments within those fields. An important finding in our study is that 38 percent of dual-career academic couples work in the very same department, although rates differ by department and between women and men (Figure 14; see Appendix B for all departments surveyed).

Survey respondents commented on disciplinary endogamy, particularly in reference to women in science. One female professor of medicine noted, "Most of the successful women scientists I know have spouses in science." A male professor wrote, "Universities must be able to hire partners [especially in science] because so many good candidates have spouses who are also scientists," adding that it is important to control for quality.
"Universities must be able to hire partners [especially in science] because so many good candidates have spouses who are also scientists."

- Professor of Medicine

FIGURE 14: PERCENTAGE OF ACADEMIC COUPLES IN SAME DEPARTMENT, BY GENDER ${ }^{\ddagger}$


Same-field coupling among academic couples where at least one partner is from an underrepresented racial/ethnic minority is highest in the humanities ( $82 \%$ ), the social sciences and medicine (65\%), and the natural sciences (63\%) (Figure 15). Lesbian and gay faculty also practice disciplinary endogamy: A full 83 percent of

FIGURE 15: PERCENTAGE OF SAME-SEX AND UNDERREPRESENTED MINORITY ACADEMIC COUPLES WITH PARTNERS IN SAME FIELD ${ }^{\ddagger}$


Understanding how couples cluster in the academy can be helpful to universities as they strive to increase diversity.
$\ddagger$ See Appendix D for methods notes.

## BOX 5: DISCIPLINARY ENDOGAMY AND DIVERSITY

A well-known physics department has advertised a job. The university has the resources to hire a partner, if sufficiently qualified. Because this is a junior-level position, time is of the essence, and the department chair would like to know whether candidates who make it onto the short list have partners who may need to be considered for a job. Even without asking, the chair can have a sense of how likely it is that a particular candidate will have a partner. One candidate on the short
list is a woman: Because she is a woman, there is a 40 percent chance that she has an academic partner (Figure 2). Because she is a scientist, there is a 48 percent chance that she has an academic partner (Figure 12), and if she has an academic partner, there is an 83 percent chance she is partnered with another scientist (Figure 13). Because the candidate is a physicist, there is 58 percent chance that partner is also a physicist (Figure 14).
humanities faculty with same-sex academic partners couple within their field, and 66 percent do so in medicine (Figure 15). For both of these groups, it is important to keep in mind that the total number of academic couples in our study is very small, especially when disaggregated by field.

From couples' points of view, our study finds that building a partnership within the same field may increase the chance of being hired at the same university. Couples hired either sequentially or jointly share the same general field of study at a much higher rate than do other couple types (Figure 16).

FIGURE 16: PERCENTAGE OF COUPLES WHO HAVE EARNED DEGREES IN THE SAME FIELD, BY HIRE TYPE


Dual hires are more likely than other types of academic couples to have earned degrees in the same fields.

Disciplinary endogamy is not something couples plan. It develops when they meet in college, graduate school, or on the job. The creative power of lifelong intellectual partnerships should not be underestimated by couples or by universities. In the days before women were hired at universities, a number of wives served as professors' more or less "invisible" lifelong research assistants and often intellectual equals. ${ }^{28}$ Marie and Pierre Curie's collaborations are rare for both being recognized equally with the 1903 Nobel Prize in physics-something he insisted upon. (They shared the prize with Antoine Henri Becquerel.) Marie Curie went on to become the first person to win two Nobel Prizes (garnering the prize in chemistry in 1911). One physicist in our study remarked, "Intelligent and creative academics tend to congregate and often end up married to one another. It is especially true that top females tend to be partnered with other academics."

## PART 2

## Academic Couples:

## Career Paths and Priorities

Career success in academia requires talent, creativity, and productivity combined with the right career choices. These choices, however, are often made in the broader context of job opportunities, employment prospects for partners, willingness of families to relocate, and other personal circumstances. This section of our study takes a careful look at how personal and professional lives are linked and intertwined in reciprocal ways such that personal lives can support and enhance professional lives and vice versa. In a context where 72 percent of full-time faculty are in dual-career partnerships (where partners are either academics or employed elsewhere in the workforce), it becomes important that nearly three-quarters of the faculty across the country consider their professional and personal goals of equal importance. Proportionately few academics in our study placed professional goals over personal ones. Men, interestingly, report privileging personal goals over professional at a slightly higher rate than women ( $22 \%$ versus $19 \%$ ). In this section, we explore academic couples, their culture and values, and how these relate to university hiring.

## Who Privileges Their Career? Men or Women?

An important issue for dual-career couples-whether academic or non-academic-is which partner in a particular relationship privileges his or her career. Academics, like other professionals, advance more quickly and get substantial pay raises with multiple offers. In the days of male-headed households, it was relatively easy for a professional to move quickly and effectively to take advantage of career advances as they arose. This is not the case for professional couples who seek to make the most of two careers-not one. Dual-career academics may compromise personal lives to keep careers on track and vice versa. The question then arises: When push comes to shove and couples must decide to apply for particular jobs, what gives? Whose career comes first? Who follows whom? We examine this issue first by looking at differences between couple types. We then look at the differences within relationships between men and women.

In response to the question "in your relationship, whose career is considered primary?" academic couples more often than others answered "both careers are equal" (Figure 17). Academic couples, in other words, place a relatively high premium on balance and equality in their relationships. ${ }^{29}$

FIGURE 17: WHOSE CAREER IS PRIMARY? BY PARTNER TYPE AND GENDER


Academic couples are more likely than others to value the career of each partner equally. Women more than men say they consider their own and their partners' careers of equal importance across all couple types.

At the same time, and within each partnered group of respondents, men privilege their careers over those of their partners at significantly higher rates than do women. Sixty-eight percent of all male survey respondents report that they consider their own career more important than that of their partner. Less than onethird of women did so. There is, of course, good reason for men and women with stay-at-home partners to give priority to their own careers-they tend to provide the household income. However, 92 percent of men with stay-at-home partners privilege their careers, versus 79 percent of women with stay-at-home partners. Among faculty with partners employed outside of the academy, 71 percent of men give priority to their careers, versus 40 percent of women.

Analyzing this finding further by academic rank, women even at the highest rank (full or endowed professor), whom one might expect to have to put their careers

BOX 6: SAME-SEX ACADEMIC COUPLES

Like all academic couples, same-sex academic couples value balance and equality in their relationships. Lesbians and gay men in academic partnerships are more likely to give equal weight to both partners' careers (64\%) than are lesbians and gay men in other types of partnerships (46\% among faculty with employed, non-academic partners; 11\% among faculty with stay-at-home partners).
first in order to succeed, report that within their relationship they value their own and their partner's careers equally. In fact, this trend of lending equal weight to both careers in the partnership increases as women move up the academic ladder. Men at all ranks, even the lowest, give priority to their careers significantly more than do women (Figure 18).

Although many personal relationships experience stresses and strains in the context of working lives, our study shows that faculty across all couple

FIGURE 18: WHOSE CAREER IS PRIMARY? BY RANK AND GENDER ${ }^{\ddagger}$


Women privilege careers equally even as they climb the academic ladder. Women full professors most vigorously value careers in the partnership equally.
types think that they are "more successful" in their career because of their partner (Figure 19). ${ }^{30}$ The professional "value added" of partnerships is particularly strong for academic couples. Partners share intellectual interests and discuss their academic work with each other. Sharing professional networks stands out as perhaps the greatest career gain for academic couples compared with other couple types. Fifty-eight percent of academic couples share contacts, mentors, colleagues, and friends compared with one-quarter or less of faculty with stay-at-home or employed partners. This greatly

## BOX 7: UNDERREPRESENTED MINORITIES

Underrepresented minority faculty in academic partnerships also tend to give equal weight to both partners' careers. Nearly half (49\%) of respondents from underrepresented racial and ethnic backgrounds consider their partner's academic career to be of equal importance. This is higher than the proportion of minority faculty in other types of partnerships who do so (34\% among faculty with employed, non-academic partners; 7\% among faculty with stay-at-home partners).

FIGURE 19: BENEFITS OF PARTNERSHIPS*


■ Have Academic Partner ■ Have Employed (Non-Academic) Partner ■ Have Stay-at-Home Partner

Academic couples benefit intellectually and professionally from their partnerships.

## BOX 8: WHY DO MEN PRIVILEGE THEIR CAREERS?

Why do men persist in privileging their careers, and why do many women continue to adjust their own careers to suit their partners'? A number of men in our survey pointed out that the decision to lend priority to their own careers boiled down to the simple fact that they make more money than do their partners. One business school faculty confirmed that when the issue arose of who should stay home to care for the children, the answer was easy: "Frankly I made much more money. If it had been the other way around, we would have done the opposite."

Things are, however, a bit more complicated than this simple equation might suggest. Our study (where salaries are selfreported) shows that many men and women who out-earn their partners do, indeed, privilege their careers over those of their partners. However, even here gender differences remain significant. Among respondents who out-earn their academic partners, 61 percent of men and 44 percent of women consider their own careers more important than their partners', whereas 37 percent of men and 51 percent of women consider the careers of both partners to be of equal importance. In other words, higher-earning men in academic couples more often privilege their careers whereas higher-earning women more often assign equal value to both careers.

In some instances, men privilege their careers because, as the demographics in our study suggest, they are more seniorranking and consequently the more sought-after partner (see, for example, Figure 6). It is true that U.S. women still practice hypergamy, the tendency to partner with men of higher (or at least not lower) status than their own. Consequently, in heterosexual couples male partners may be somewhat more established professionally than are female partners. ${ }^{31}$ Still faculty commented that when one partner makes too great of a sacrifice, the couple will move when good opportunities for both arise.

A study by the European Molecular Biology Organization (EMBO) confirms our findings. EMBO surveyed recipients of its two major fellowship programsthe Long-Term Fellowship and Young Investigator Programme-from 1996 onward and found that even though women often selected partners with qualifications similar to their own, women frequently put their own careers second to their partners' and move professionally more often to support their partners' careers and not their own. ${ }^{32}$ A study done in 1997 showed that this practice is detrimental to women's careers. ${ }^{33}$

Data in our survey are selfreported, and it is possible that, consistent with cultural cues, men overreport and women underreport the importance each attributes to his or her own career. Men and women are embedded in strong social systems directing them toward certain behaviors. In U.S. culture, a certain modesty is
often expected of women, and even women who are the lead partner in a relationship have been taught, sometimes through hard experience, not to say so. Thus both men and women in our survey may have consciously or unconsciously misestimated the value they assign their own careers.
enhances each partner's reach into the other's circle of mentors, friends, and patrons. In academia, where power and privilege still often divide along gendered and racial/ethnic lines, access to multiple circles of knowledge and influence can potentially boost careers.

Research productivity is another career "gain" for academic couples. ${ }^{34}$ In response to a separate survey question (not included in Figure 19), 44 percent of faculty in academic couples report that they have gained in terms of research productivity as a result of their partnerships compared with 35 percent of faculty with stay-athome or employed (non-academic) partners.

## Mobility and Trade-Offs of Partnerships

Academic couples, then, place a strong emphasis on the success of both partners' professional and personal well-being. It is important to understand what role these values play when couples are on the job market. Climbing the ladder with respect to rank, salary, professional opportunities, and prestige often drives faculty to seek outside offers. When asked, "Have you applied for another position within the past five years?" 37 percent of all faculty said yes. Surprisingly, academic couples (42\%) along with faculty who are single are the groups most likely to pursue outside offers. Why is this so?

First and foremost, academic couples seek to have both partners settled in one location where each can thrive professionally. A full 88 percent of faculty who successfully negotiated a (sequential) dual hire at their current institution indicated that the first hire would have refused the position if her or his partner had not found appropriate employment.

## "Women won't take the Put differently, more than 600 faculty

 jobs if their partners are not suitably employed."- Dean of Social Sciences would have rejected offers had institutions in our sample not stepped up and taken candidates' partners into account. Another measure of how important academic couples consider the careers of both partners when making decisions about where to work is the fact that more than 20 percent of both women and men who were part of a dual hire report that they or their partners have taken a position at a less prestigious institution in order to improve the couple's overall employment situation. Couples will compromise in order to find the best of two possible positions.

Second, academic couples worry about salaries. It can be difficult-especially as people become more senior and more expensive-to move two bodies in tandem to suitable jobs elsewhere. Helen Astin and Jeffrey Milem's study of academic couples in 1997 showed that men with academic partners earned less than those with non-academic partners but that women with academic partners earned more than those with non-academic partners. ${ }^{35}$ Our study found that respondents (both male and female) who were part of a dual hire (either jointly or sequentially) do not make significantly less than do other faculty members. Although many couples may indeed be underpaid, looking at the aggregate data from the institutions we studied, and accounting for field and rank, couple hires make slightly more money than their peers overall. First hires and joint hires do the best (as might be
expected) but, looking at all respondents, the earning power of dual-career academic respondents is not diminished by their couple status. ${ }^{36}$ Follow-up research may offer some explanation for this finding.

What builds couples' loyalty to their institution and keeps them from accepting outside offers? Not surprisingly, among faculty with academic partners who have refused an outside job offer in the last five years, strong counteroffers are persuasive reasons to stay (Figure 20). However, professional opportunities for partners also play a major role. The top reason women refuse new job opportunities is that their partners are not offered satisfactory positions in the recruiting institution area. A dean confirmed this finding, commenting that in his experience universities make more effort to employ an accompanying male (in heterosexual couples) than female because, he said, "Women won't take the jobs if their partners are not suitably employed." The top reason men refuse outside offers is a strong counteroffer, but following closely at number two is that their partners (and children) do not wish to relocate.

FIGURE 20: REASONS FOR REFUSING OUTSIDE OFFER AMONG ACADEMIC COUPLES, BY GENDER ${ }^{\ddagger}$
(Women, $\mathrm{n}=291$; Men, $\mathrm{n}=314$ )


The number-one reason women refuse outside offers is that partners do not find satisfactory employment in the recruiting area. The top reason men refuse outside offers is strong counteroffers.

Academic partnerships also come into play when faculty consider professional gains and losses. Almost half ( $47 \%$ ) of all faculty with academic partners note that they have lost professional mobility as a result of their partnerships compared with 29 percent of faculty with stay-at-home partners and 39 percent of faculty with employed (non-academic) partners. This finding appears to be true especially of women in academic partnerships, who, as we have shown, tend to place a great deal of emphasis on career equality. However, men with academic partners also perceive a higher loss in professional mobility than do other men-a far cry from the notion of the unfettered male academic of the past (Figure 21).

FIGURE 21: PERCENTAGE REPORTING LOSS IN TERMS OF MOBILITY, BY PARTNER TYPE AND GENDER ${ }^{\ddagger}$


Academic couples are more likely than other couples to report that their partnerships limit their mobility.
$\ddagger$ See Appendix D for methods notes.

It is important to note that the "losses" incurred by academic partnerships are such only in the context of current hiring and employment structures. Many of these current structures are built around outdated models of family and faculty life that presume academics will act as "free agents" as they climb the tenure ladder. Having a partner is, therefore, a "loss"-a partner can compromise the mobility ostensibly required to maximize career success. However, academic couples are unlikely to cede the benefits of partnerships to gain mobility. For these and many other reasons, academic couples will continue to make choices about their careers that take one another and their families into account.

# PART 3 <br> University Programs, Policies, and Practices: How to Maximize Options? 

Universities today are expanding and refining hiring practices to attract top talent from the broadest range of applicants. As we have seen in Part I of this report, academic couples comprise a significant proportion-more than one-third-of the candidate pool, and universities are increasingly tapping into that talent pool. In this final part of our report, we examine the many issues surrounding couple hiring, and we suggest how partner hiring policies and practices can be designed to work to everyone's best advantage-candidates, departments, and institutions overall.

Couple hiring is a sensitive topic because it challenges cherished ideals of academic advancement, including open competition, fairness, and merit. But the reality in the 21st century is that universities increasingly hire couples. A number of universities now take "great pride" in working collaboratively with departments across their institutions to address dual-career issues. As one administrator put it, "We do not simply recruit faculty members; we recruit whole persons and all that might entail." As these trends continue, universities will benefit by crafting fair and well-considered policies governing such hiring.

Universities are organized differently and, consequently, there is no one best way to assist dual-career couples. All institutions that hire partners are quite clear that they do so on a case-by-case basis, looking carefully at the qualifications of each candidate set alongside institutional priorities. Some, however, have consistent procedures for initiating and seeing through that process, whereas others do not.

Our question in this final report section is how can talented administrators maximize the benefit to the university, departments, and faculty members when considering hiring academic partners. Our purpose is to set out the myriad issues surrounding dual-career academic hiring in order to inform as well as to suggest strategies for greater efficiency and consistency in procedures for moving

## BOX 9: MAJOR TRANSITIONS IN THE HISTORY OF UNIVERSITY HIRING

It is important to look at how couple hiring has evolved in the longer scope of the history of university recruitment. Until the 1960s, universities openly discriminated on the basis of sex, race, religion, and much else besides. Jews were not hired at many U.S. universities until after World War II; women and African Americans were not appointed in significant numbers until after the Civil Rights movements of the late 1960s. Further, anti-nepotism rules barred women from teaching at the same university as their husbands. The Nobel Prize winner Maria Goeppert-Mayer, for example, was given an attic office, some honorary titles, and sometimes laboratory space, but no real jobs as she followed her husband from Johns Hopkins to Columbia and the University of Chicago. ${ }^{37}$ She and her husband were finally hired jointly as professors at the University of California, San Diego, in 1959 after Goeppert-Mayer was elected to the National Academy of Sciences. At other universities, married women looking for professorships in the 1950s were counseled to keep their own family names to avoid nepotism issues. Most universities have now dropped their anti-nepotism rules. ${ }^{38}$

University hiring practices have evolved and changed dramatically in the past 40 years. Before the coming of equal opportunity legislation,
faculty hiring was often fueled by cronyism. Professors now in their 60s reminisce about getting their first job: A department called up the top schoolsHarvard, Princeton, Stanford, Berkeley-and asked for their best candidates. Candidates were phoned and many hired sight unseen. We should remember that hiring procedures we now take for granted, such as nationally advertised positions, were created in the 1970s to broaden candidate pools and promote fairness.

The 1960s and 1970s saw major transitions in hiring practices at U.S. universities. Title VII of the Civil Rights Act of 1964, Executive Order 11246 of 1965, and Affirmative Action (Order No. 4) and Title IX of the Education Amendments, both of 1972, are federal laws designed to overcome past discrimination and to support fairness in hiring. ${ }^{39}$ Legislation set a necessary platform for fairness, but in the 1980s and 1990s, universities found that they needed to go further. Many implemented "opportunity hiring" programs that allowed departments speed and flexibility in securing candidates outside the standard hiring process if that hire supported institutional priorities. Opportunity hiring typically supports areas such as "faculty excellence" to retain or establish a worldclass competitive advantage. Universities typically hold
"faculty incentive" or other funds in provosts' offices to support opportunity hiring.

Since the mid-1980s, U.S. universities have entered another period of transition in hiring. Couple hiring might be seen as a next step to broaden academic hires. It is important to understand that in the past "professionals" hired by universities, law firms, or
elsewhere were, in fact, not free-standing individuals but male heads of households (with relatively mobile family units). As the labor force has changed, so have hiring practices. As we saw in Figure 1, 72 percent of the academics are not merely individuals, but partners in dualcareer relationships of one sort or another. As we have also seen, this is true for men and even more so for women.
requests for partner hiring through institutions. To organize this information, we follow the couple-hiring process, reporting alternative practices-their pros and cons-at each step along the way.

When initially designing this study in 2006, we had hoped to rely on university data concerning couple hiring and evaluations of dual-career programs. We found, however, that few universities gather such data or evaluate their programs, although some are now beginning to do so. Consequently, in this section we report (1) findings from our survey (which included several questions that measure faculty perceptions of dual hiring); (2) findings from interviews with administrators at the universities in our study; and (3) findings from interviews with administrators at five additional universities with innovative programs and practices in this area. Universities in our study are anonymous; institutions named in this section are not necessarily those in our study.

## Dual-Career Programs

This report focuses on dual-career academic couples and does not set out to investigate in depth the issue of relocation assistance for non-academic working partners. That is a large topic worthy of a dedicated study of its own. However, we received a number of comments pleading for universities to offer more employment assistance for partners working outside academia. One scientist noted that his wife, a software engineer, received no assistance finding employment within the university that hired him (where she now works). Finding her an appropriate position, he commented, "took considerable time and we lost considerable
money" as a result. In light of the importance of this issue, we briefly discuss dualcareer programs that assist faculty with academic and non-academic partners.

Most universities assist all faculty to a greater or lesser degree with quality-of-life issues, such as locating good-quality housing, daycare, elder care, and schools. These overarching faculty relocation and retention programs are typically housed in an Office of Vice Provost for Faculty Development, Human Resources, or the equivalent (either at the university level or, for large institutions, at the school/college level). The most developed offices have full-time or part-time staff, depending on the size of the university, dedicated to these issues.

Dual-career programs form one part of these larger offices and specifically assist with partner relocation and job searches. A dual-career office may offer a variety of services ranging from referrals to staff positions within the university to information about the local job market, direct contact with local firms, career counseling, resume preparation, job search strategies, and the like. The most developed of these offices employ a dual-career specialist to work with non-academic partners. Other universities, by contrast, contract an independent local career management company or employment agency that assists partners with their off-campus job search. Many universities find this latter option less costly than establishing comparable on-campus services. In the absence of such offices, partner advising may fall to department chairs who rarely have the time or resources to help in a systematic fashion.

It is important to note that dual-career programs clearly state that they do not guarantee job placement but seek to aid partners in their overall relocation. Assistance may be limited to partners of tenure and tenure-track faculty and is often available for a period of one to two years.

Six of our 13 schools offer programs for non-academic employed partners. Program staff devoted to these issues tend to develop close working relationships with on- and off-campus employers over the course of the years. ${ }^{40}$ Both Cornell University and Pennsylvania State University have well-developed programs. ${ }^{41}$ This may not be surprising given that both schools are located in areas with few employment opportunities outside the university. In more recent years, however, schools in less isolated areas are following suit. Harvard University and the University of California, Berkeley, among others, are currently establishing such programs. ${ }^{42}$ Programs like these may prove to be critically important to recruiting
faculty with employed partners. Universities need to collect data and evaluate their programs to (1) assist universities in strategic planning and (2) ensure equitable treatment of all faculty partners-both academic and non-academic.

Dual-career programs tend at some point to bifurcate into staff assisting non-academic partners, and faculty or academic staff assisting academic partners (Figure 22). Although all dual-career couples require assistance when relocating for new jobs, in this report, we confine our analysis to the many complex issues surrounding academic partners.

FIGURE 22: DUAL-CAREER PROGRAMS ASSIST BOTH ACADEMIC AND NON-ACADEMIC PARTNERS

Office of Vice Provost for Diversity and Faculty Development or the equivalent

Non-Academic Partners
referred to dual-career program staff or
consultant for help with relocation

Academic Partners
referred to vice provost,
institutional broker,
dean, or department
chair for assistance in
finding an appropriate
academic appointment

## Protocol or No Protocol?

Universities across the country offer a variety of solutions for dual-career academic couple hiring. All 13 universities in our study engage in couple hiring for recruitment or retention-with greater or lesser institutional support and success. This is quite different from a 2000 survey of 600 U.S. universities showing that only 20 to 24 percent of U.S. universities had some sort of dual-career academic hiring policy in place, while 15 percent of universities nationally did not support couple hiring. ${ }^{43}$ Five of the universities in our study (four public and one private institution) have written policies or principles guiding dual hiring. The others have no formal policies and rely instead on informal practices developed over the years. Two private universities, for example, have no written procedures but a centralized mechanism in the person of a "broker"-a distinguished member of the faculty who works universitywide (across all schools and colleges) to find the right departmental "fit" for a partner and simultaneously to find resources to seal a deal in a timely fashion.

Administrators with hiring guidelines in place argue that protocols help (1) clarify for all participants-administrators, faculty members, Equal Opportunity officers, and perhaps potential job candidates-the processes by which such hires are vetted in a timely fashion and (2) facilitate clear communication between key players across the university. A number of universities have developed dual-career hiring guidelines in conjunction with their National Science Foundation ADVANCE grants. ${ }^{44}$ The hope is that clear and coherent protocols remove the sense of intrigue and favoritism that can adhere to partner hiring and bring greater fairness to the process. Universities who engage in dual-career academic hiring should treat all requests for a partner hire equitably; that is to say, requests for partner hires should trigger known and agreed-upon processes that work consistently throughout the institution. Survey comments also show a strong preference among faculty for transparent and consistent procedures for couple hiring.

Written protocols do not in themselves determine outcomes. Universities that have established dual-hiring protocols state openly (often on their websites) that these guidelines do not guarantee employment to any candidate. Department chairs, deans, and provosts emphasized that each dual hire is unique and must be considered on the merits of each case. Policies define the processes by which partners are considered for hire; they do not define departmental standards for such hires. Outcomes depend on the quality of a particular candidate's scholarship, the "fit" of a particular candidate's area of expertise with departmental priori-
ties, and available funding (see What Counts in Hiring Decisions? below).

A number of administrators worry that protocols might shut down the flexibility often required for finding the right "fit" for a partner within an institution. One department chair commented that he might be trying six different solutions for one partner hire at any moment. Another university, also without written protocols, mixes and matches approaches (sometimes using a universitywide faculty broker, sometimes following the chain-of-command from department chairs to the dean) in efforts to find potential tenure homes for partner candidates. Flexibility-for both administrators and departments-needs to be built into protocols. Written policies themselves, of course, do not solve everything. One search committee chair wrote that although his university has the right policies, "They are not always backed up with action or even a (serious) explanation as to why there was no follow through."

Couple hiring involves several key issues that protocols should address. One of the thorniest is departmental autonomy versus university priorities. Even when candidates are excellent, partner hiring-in which open searches are often waived and provosts sometimes offer persuasive resources-can be viewed as violating the sacrosanct autonomy of departments to mold and shape their profiles through selective hiring. Given how much one hears about the need of departments to determine their own intellectual futures, it is significant that only 26 percent of survey respondents report that partner hiring disrupts the "intellectual direction" of their department (Figure 23).

With couple hiring on the rise, many institutions encourage faculty to think of the university not as a set of autonomous departments but as an intellectual and corporate whole. Interdisciplinarity, for example, is fostered by an awareness of what departments and colleagues do across the university. One vice provost argued that academic couple hiring is another instance in which the total package may be greater than the sum of its individual parts. Another administrator continued that "what goes around, increasingly comes around" and that when asked

FIGURE 23: FACULTY PERCEPTIONS OF DUAL-CAREER ACADEMIC COUPLE HIRING*


* Percentages do not add to 100 due to rounding.


## Agreed-upon

protocols do not dictate solutions to departments but may ask them to cooperate in new ways.
to consider a partner hire, faculty need to bear in mind that their department may itself be on the requesting end of the partner issue in the near future. Agreed-upon protocols do not dictate solutions to departments but may ask them to cooperate in new ways.

Another issue protocols need to address concerns waiving open searches in order to move forward with a partner hire. Forty-three percent of survey respondents worry that couple hiring jeopardizes open competition (Figure 23). In other words, faculty are concerned that if a job is not advertised nationally and open to all comers, their department may lose the opportunity to make the best possible hire. The problem, of course, is that the candidate who emerges as the top pick of 300 applicants may choose not to take the job if his or her partner is not also accommodated. A few universities nationally continue to require an open search and encourage a partner to apply. Most universities, however, and certainly those in our study request a search waiver for partner hiring, which is typically vetted by the university's office of affirmative action/equal opportunity. In most cases, especially those in which a woman or underrepresented minority is involved as a first or second hire, a waiver is granted.

Our survey reveals that most respondents do not know their university's procedures for couple hiring. For example, at 12 institutions, between 65 and 90 percent of faculty marked "I don't know" in response to the question: Does your current institution have a written hiring and retention policy in place for dual-career academic couples? However, the one institution in our study with the highest rate of faculty awareness also enjoys the highest rate of perceived institutional and departmental support for accommodating academic couples. ${ }^{45}$ We find more generally that schools with written policies have higher rates of perceived institutional and departmental support for academic couples than do schools without written policies. Thus, awareness and clarity are critical to creating a positive climate overall. Increasing faculty awareness can start with deciding whether to restructure or develop protocols, a process that will itself foster open policy discussions concerning couple hiring. This open dialogue will help to build a culture of consensus and make individual cases easier to evaluate (positively or negatively) as they arise.

## Raising the Partner Issue

An important question for couple hiring is when first to raise the issue of a partner's employment needs. A partner complicates the already complex choreography required to hire or be hired. How can institutions and couples best inform each other about partners and expectations? Candidates and universities are currently caught on the horns of a dilemma: Candidates may think that they benefit by raising the issue as late as possible; universities need to find out about potential partner issues as early in the process as possible.

When to raise the issue is of real concern to applicants. If there are two equally impressive candidates for a job and one may not take the job without some accommodation for a partner, departments may opt-perhaps without fully realizing it-for the unencumbered candidate. In fact, 14 percent of our survey respondents agree that their department has not approached or considered a candidate because it is known that he or she has an academic partner (Figure 23). This finding is borne out in respondent comments in which several faculty noted that candidates are sometimes taken out of the running for a position because they have known partners and the search committee presumes that these partners are unmovable. The issue is compounded by small fields and departments where, as one faculty commented, search committees already know "whether candidates have spouses who require academic jobs."

Candidates, especially those fresh out of graduate school, attempt to learn the "rules." And the pages of The Chronicle of Higher Education, graduate advisors, blogs, and similar sources are rife with advice. The current "word on the street" is that candidates should wait for an offer before mentioning that they have a partner, out of fear that this might spell "trouble"-raise a red flag-to a search committee.

Candidates should investigate dual-career hiring practices at institutions to which they apply because university cultures and procedures differ greatly. Where the culture encourages partner hiring, candidates may benefit by raising the issue early in the process. Many universities, especially large ones, make every effort to hire academic partners. Other universities, as we learned in interviews with university administrators, rarely or never hire academic partners at the junior lev-el-some because they do not readily tenure their own junior faculty and hence do not invest in them in this way, others because they are in metropolitan areas where they rely on other institutions for partner employment opportunities (see Geographic Location below).

From the point of view of the university, the sooner an institution finds out about a candidate's needs, the sooner it can coordinate efforts to consider a partner hire. This may be less pressing at the senior level where appointments can take years to come to fruition, but it is especially urgent at the junior level, where, looking at our survey data, many couple hires occur (see, e.g., Figures 6 and 11). Newly minted Ph.D.s are often pressed to accept a position within three to four weeks. The time is, indeed, short for a university to vet a partner, especially if the position for that partner would not be in the same department or college as the original candidate. Administrators plead that the sooner they learn about a partner, the more leverage they have to negotiate a solution, especially if the partner is a strong candidate.

Learning about candidates' needs in this regard can be tricky (Figure 24). Search committees tend to steer clear of partner-status questions to avoid perceptions of discrimination in hiring. Asking about marital or partnering status can lead to lawsuits based on discrimination. ${ }^{46}$ The rationale is that search committee members may discriminate by consciously or unconsciously succumbing to traditional gender stereotypes about work and family or the difficulty of dual-career hires. In the past, it was all too often assumed that women "follow their husbands" or, if married, leave to have children. Although it is common practice in Europe, for example, to list birth date and marital status on a professional curriculum vitae, in the United States it has become important that these private matters be kept private.

FIGURE 24: THE FIRST HIRE MOST OFTEN RAISES THE ISSUE OF A PARTNER HIRE ${ }^{\ddagger}$


How, then, can universities encourage candidates to divulge information that might count against them? Universities who use partner hiring as an advantage to attract and retain high-quality faculty can signal "friendliness" to the issue in job announcements, recruitment materials, and university websites. Some universities, for example, advertise that they are "responsive to the needs of dual-career couples" (referring here to candidates with either academic or non-academic partners). Other universities include a brochure highlighting their support for dualcareer couples in materials sent to all candidates. This may put candidates at ease and encourage them to raise partner issues earlier in the process.

Some search committees, when they have narrowed the list to a few top candidates, lay out the process for partner hiring in a generic way, indicating what they need to know and when, in order to make the process work for both the candidate and the institution. Search committees in this instance provide information; they do not ask prohibited questions. Other universities ask search committees to inform all interviewing candidates of possibilities and procedures for partner placement-thus placing the onus on the institution rather than the candidate to bring up the issue. One university invites all interviewees to have a confidential meeting with its dual-career program officer; this officer can spell out possibilities and, importantly, the officer does not report back to the search committee about the candidate's situation.

It is important that universities communicate carefully and regularly with faculty and search committees about how best to handle raising partner issues on their campus. All faculty need to know the policies and procedures, whatever those might be.

Our survey opens a window onto current recruiting practices, showing that dualhire candidates most often raise partner issues during interviews (57\%). A number of candidates also raise the issue after a verbal offer (25\%), a few in the letter of application (9\%), and a few after a written offer (8\%). Not surprisingly, timing differs by rank (Figure 25). Senior candidates are often being actively recruited by institutions and may feel more confident about discussing partner needs earlier in the hiring process.

Once the issue is raised and negotiated, the process may work best when each partner has a written offer in hand before a "first hire" accepts an offer. One savvy assistant professor remarked, "Many junior faculty naïvely accept the initial of-

FIGURE 25: WHEN IS PARTNER ISSUE RAISED? BY RANK OF FIRST HIRE*


Senior candidates have more leeway than junior candidates to raise a partner issue earlier in the process.

* Percentages do not add to 100 due to rounding. $\ddagger$ See Appendix D for methods notes.
fer before the accompanying offer is suitably negotiated, which results in a poor accompanying offer." He recommended that faculty-junior and senior-wait to accept an offer until both partners can simultaneously sign contracts. The process can take a long time, but he judged that it is "worth it in the end." Another professor noted that candidates must apply pressure in order to achieve what both candidates want professionally.

When promises are inferred and not put in writing, considerable misunderstanding can arise. One humanities professor commented that "during the recruitment process the dean and relevant departments were very positive and helpful [about a position for her partner], but since I have signed my contract and begun the job, my partner has been rather left in the dark about his own position and has still not received a contract." Others noted that promises made verbally, such as possible tenure-line appointments becoming available in the next few years, rarely come to fruition. Even if no promises are made, faculty often feel "misled" by possibilities discussed during the initial recruitment process. This fouls the air and makes for ill feelings. More than one-quarter ( $27 \%$ ) of dual hires who rated their hiring experiences negatively thought they did not receive what they were promised during negotiations. Our faculty survey respondents and administrator interviews suggest that both the university and potential faculty benefit when the details are clear and in writing before either partner (first or second hire) accepts a contract.

## Who Brokers the Deal?

Once a partner is identified, who oversees university efforts to find a potential fit for the candidate? The first one on the scene is usually the department chair of the first hire. The department chair renders an initial judgment concerning the partner and initiates appropriate action. In all cases, the crucial step is finding an appropriate academic fit for the partner. Universities have settled into essentially two different protocols for vetting partner hires.

First, the key interactions follow the usual chain-of-command at a particular university with information and support flowing up or down from departments, through the dean's office, and on to the provost's office. There are two variations in this scenario. In the first, the department chair takes the lead, determining the type of position the partner seeks, reviewing the partner's qualifications, and contacting the chair of a second department (although partners may also seek appointments within the same department). If the second chair decides to move forward to ask his or her department to consider the appointment, the two chairs approach the dean (if in the same school or college) or provost (if in different schools or colleges) for approval of a potential faculty line or funding. If both appointments are within the same college, the issue may be handled at that level. If funding outside a college or school is required, application may be made to the provost's office (see Funding Models below). ${ }^{47}$ In a slightly different version of this scenario, the department chair hands off to a dean, associate dean, or even a vice provost for faculty affairs who takes on the heavy responsibility of finding an appropriate home for the partner.

In both of these scenarios, department chairs are key to initiating the process, whether they coordinate with another chair or dean, or launch the request up the chain-of-command. ${ }^{48}$ Faculty in our study pointed out that, in the absence of a clear university process for partner hiring, "the chair sets the tone and agenda for dual-career hiring." Even where policies or protocols are in place, department chairs or heads often make or break deals. One engineer commented that how policies are implemented depends on "the talent of the relevant department chairs and deans." This is a large responsibility. Department chairs are generally members of faculty who step up to lead the department for a short three- or five-year term. Many have little experience with dual hiring, and some may be unaware of university policies or practices. Moreover, as active scholars themselves, department chairs may not have time to see this complex process through, or they may not think that such issues lie within their purview. Chairs may also lack expertise
in a partner's field and feel uncertain about the quality of the candidate he or she is putting forward for consideration. One chair noted that "no other aspect of my job arouses as much controversy as dual-career hiring."

A second, quite distinct protocol is currently used in several private universities but could be implemented in public institutions as well (in the university as a whole if the institution is not too large; in a college or school when size is an issue). In this process, department chairs hand off not to another chair or dean but to a centralized "special assistant" to the provost who serves as a "broker" universitywideacross all schools and colleges-to find the right departmental fit for a partner and identify the necessary resources. A central broker, a senior administrator with release time to specialize in this area, can save department chairs (whose learning curve may be steep) considerable time by stepping in when called upon. To be effective, this special assistant needs to be a distinguished member of the faculty whose job it is to see the process through to the end. By providing department chairs with assistance in this matter (and not relying on the talents or proclivities of particular chairs) the university helps build uniformity, fairness, and reciprocity into dual-hiring practices.

Such central brokers might devote from one-quarter to half time to overseeing dual-career issues. This special assistant must know faculty, departments, and schools-their priorities and needs-across the university as a whole. One vice provost speculated that 80 percent of this job may be devoted to universitywide communication and coordination and only about 20 percent to resource allocation. Unfortunately, no written guidelines are currently available for this process.

In all cases-no matter what institutional pathway is devised (and universities often mix and match methods to find a solution)-speed is of the essence. The initial step of finding the right department to consider a partner is crucial. The chair of the department receiving a potential second hire can usually provide an initial "read" on the situation. If the answer is a clear "no," a fast "no" is better than a slow "no." If the answer is "maybe," the process must be conducted with all deliberate speed to reach a final agreement in time to allow a successful recruitment of the initial candidate. Especially when considering junior hires, universities need to be careful not to lose their second candidate.

## Funding Models

Dual hiring is today part of the cost of running a university. Although department chairs may be key to successful hiring, they are typically constrained by what deans or provosts will or can fund in terms of partner hires. Funding for dual-career hiring requires monies for salary and also startup costs, including laboratory and office space, equipment costs, research accounts, graduate student stipends, staff support, housing packages, support for child care, and other benefits. At any level-junior or senior-it can be expensive. ${ }^{49}$ Many provosts or deans reserve incentive or opportunity funds for unexpected hiring needs, and many now set aside such centralized pots of monies for partner hires. Universities with funding available to support partner hiring increase the speed and agility with which they can place qualified and desirable candidates. As one vice provost noted, "One must be nimble with resources."

A common cost-sharing model, used by six of the 13 universities we studied (five public and one private), draws monies for a second hire from three sources: one-third from the depart-

## "One must be nimble with resources." - Vice Provost for Faculty Advancement

 ment of the first hire, one-third from the department of the second hire, and one-third from the provost's office. ${ }^{50}$ This arrangement can be permanent or guaranteed as bridge funding for anywhere between one and five years-with the most common solution being three years, at which time the hiring department is expected to pick up the full cost of the faculty line (possibly through retirements, increased student demand, or other means). Other universities (including some who use this cost-sharing model) are flexible and may devise other fractional cost-sharing arrangements depending on the resources of a particular department or program. Depending on the arrangement, monies for a partner hire revert to the central administration or department(s) paying the bill when a partner leaves or retires.Many universities allow centralized funds that support dual hires to be used for recruiting or retaining all tenure-track and tenured faculty. Others, by contrast, mobilize these funds only when dual hiring enhances diversity-in terms of either gender or ethnicity. In the past, this strategy has allowed great leeway to dual hiring, given that most couples (except for males in same-sex relationships) include a woman. Some universities, however, now restrict female diversity to those fields, such as physics, chemistry, electrical engineering, and orthopedic surgery,
to name a few, where women are underrepresented (and prefer not to use opportunity funds for women candidates joining comparative literature, English, or other departments that have succeeded over the years in cultivating greater gender equity). One university in our study is considering restricting these funds further, using them to recruit women and underrepresented minorities as first hires only and, in this way, address both diversity and equity issues across the institution.

Each university has its own procedure for accessing centralized funds for partner hiring. At some large public universities, requests to the vice provost can be made only by a dean or his or her designate; at other schools, the request may be initiated by the department chair. In all cases, requests are intended to bolster the university's overall priorities balanced against the needs of particular departments or research groups and individual faculty. Once the resources are clarified, the evaluation of the potential hire begins (see What Counts in Hiring Decisions? below).

The common cost-sharing model, however, also raises some concerns. Some faculty worry that a funding cutoff after three years can endanger tenure decisions for second hires. One professor wrote that when a second hire was not tenured, she was concerned that it was due in part to the expiration of the agreement by which the first hire's department supported the second hire's salary. Other faculty worry about what happens if couples divorce (a topic that warrants further research). As we suggest in this report, second hires must be carefully reviewed so that excellence is not compromised. A well-designed and communicated protocol outlines a process to ensure that both first and second hires add value to the institution.

Universities, of course, have finite resources, and many approach requests for partner hires on a first-come, first-served basis. Yet, dual hires constitute 10 percent of faculty respondents (and 13\% of all hires since 2000); universities need to budget so that such hires are possible. We recommend that policies be developed so that funding can be provided in an equitable fashion across the university. Schools that do not provide central opportunity-hire funds generally lack agility to move quickly to make deals. Striking while the iron is hot can lure especially prized candidates to campus. Faculty members at one university we studied commented that the lack of serious funding made dual hiring nearly impossible.

It is impossible to say what dual-career programs are likely to cost universities; each university is unique in its administrative structures and resources. Placing a partner can be expensive, especially in science and engineering where startup packages often require major resources. Losing faculty and this initial invest-ment-for any reason, including partner issues-however, can also prove costly.

## What Counts in Hiring Decisions?

Quality, quality, quality. Everyone-faculty and administrators alike-agrees that dual hiring works only when both partners are well qualified; each appointment must be based on the highest standards in research and teaching. Faculty emphasize that second hires are made on a case-by-case basis with no guarantees given to candidates. As one engineering dean put it, "We don't want another department to lower its standards to take a spouse." Whatever the case may be, second hires are the first to plead that faculty be hired on merit. It is essential, many counsel, that both partners are "wanted" by their respective departments.

Tenure-line hires are scrutinized so that excellence is not compromised, and second hires are no exception. As in any hire, partners brought forward as part of a couple hire present a full dossier of published work and teaching evaluations, go through a full set of interviews, and are vetted through letters of recommendation. Departmental faculty must have an opportunity to look carefully at a partner if that partner is to join their faculty in some capacity (see Types of Positions below). The search process is in essence the same as for any candidate with several exceptions: A search waiver may be requested, and departments may be asked to be flexible in both the rank order of candidates and the candidate's field of specialization.

Many of the universities we studied are among the top universities in the country. They strive to hire faculty not merely tenurable at the institution but the very "best" in their fields nationally and internationally. Although departmental autonomy to accept or reject a candidate remains paramount, universities suggest that when asked to consider a partner hire, departments be prepared to be flexible and willing to hire from among the top five scholars in any particular discipline. This request can be complicated by the fact that departments cannot cover all subfields in a particular discipline and many set out hiring priorities to guide the intellectual coherence of their offerings (and to assuage battling factions). When a couple for hire comes along, a department may find itself suddenly offered an expert in environmental history or genetics rather than in the planned area of Latin American history or neurobiology. The candidate may be a star in his or her own right—but
may not necessarily add to the current strengths of the department or plug an important gap. His or her hire may mean sacrificing strength in another area. Even if a partner does not fit within a department's top three priority areas, faculty may be asked to consider whether the potential hire can contribute in positive ways to their group. Not surprisingly, respondents in our survey consider a second hire's area of specialization important to partner hiring decisions 87 percent of the time (Figure 26). When done carefully, partner hires do not necessarily impinge upon departments' intellectual coherence. When asked to evaluate specific dual-hire recruitment and retention cases on their own campuses, only 26 percent of faculty respondents agreed that couple hiring disrupted a department's intellectual direction (Figure 23).

When reviewing the qualifications of a potential second hire, our study shows that faculty are persuaded to make an offer based on the following considerations: (1) the second hire's quality of scholarship, (2) the second hire's "fit" with the department, (3) the availability of university funds for the second hire, and (4) the second hire's area of specialization (Figure 26). Between 87 and 93 percent of faculty agree that these factors are important to departments' final hiring decisions.

FIGURE 26: IMPORTANCE OF FACTORS WHEN CONSIDERING A PARTNER HIRE* ${ }^{*}$


The "star quality" of the first hire is also an important factor-although not the most important one-driving employment decisions for second hires. The "desirability of the initial hire" ranked at 84 percent among survey respondents as a reason to hire a partner (Figure 26). Faculty are also likely to favor a partner hire when their department benefits directly from the initial hire; that is, when the first hire is in their department. Sixty-four percent of respondents reported faculty members in their department favored a dual hire or retention when the first hire is in their own department (Figure 23). Only 37 percent of respondents reported that they favored a partner hire when their department got the second partner only (Figure 23).

Faculty also see dual hiring as one way to promote diversity by increasing the proportion of women and underrepresented minorities on staff (Figure 23). One department chair remarked, "I think dual-career hiring is going to be critical to increasing the numbers of women and minorities in the professoriate, but it can function successfully only if academic standards and departmental autonomy are maintained and respected."

In addition to being asked how faculty perceive partner hiring, respondents were asked how their departments use partner hiring. Twenty-four percent agree that departments used couple hiring to recruit nationally and internationally renowned faculty "a great deal" or "a lot," whereas another 55 percent agree that departments use dual hiring for this reason "a moderate amount" or "a little" (Figure 27). Faculty also agreed that departments use partner hiring to retain good faculty (Figure 27). A number of professors commented that couple hiring provides "great strength to a department's ability to attract top talent," especially at the rank of full professor. Survey respondents also commented that couple hiring can bring stability to departments if each partner is well-placed professionally. Fifty-six percent of respondents agreed that academic couples benefit their departments by "adding something valuable" (e.g., loyalty, socializing, synergy) (Figure 23).

Still, couple hiring raises concerns. In our survey, 44 percent of faculty overall (and a little more than one-third of academic couples themselves) worry that hiring a couple in the same department may create conflicts of interest (Figure 23). Concerns can run high when one member of a couple takes on an administrative position. When this happens, some faculty express fears about nepotism, and some dual-hire couples find it "awkward." One woman department chair "bent over backward" not to favor her husband in any way. Another woman in a law

FIGURE 27: FACULTY PERCEPTIONS OF HOW DEPARTMENTS USE COUPLE HIRING*


* Percentages do not add to 100 due to rounding.
school did not step up to become dean, because her husband was on faculty. Some universities have policies against couples directly supervising each other's work. In such cases, oversight might be transferred to a noninterested party: a dean, provost, or another independent administrator. This, too, has its problems. One female professor thought that she lost out professionally by being supervised by an administrator outside her department who did not know her work well; she thought that she lost the "advocacy" usually associated with a department chair.

Although a number of faculty worry that by accommodating a partner hire their department will miss out on future hiring opportunities, some departments game the system to increase the size of their group. One second hire applied for an open position in a particular department but was told to withdraw her application and go the partner-hiring route. She obliged and commented that through this arrangement her department got two faculty members for the price of one: She cost the department one-third of her salary; the new faculty member hired through the open search (into a field that complemented her own) was hired at two-thirds of the usual cost by virtue of being appointed jointly with another department.

## Types of Positions

Partners can be hired into all types of academic positions, and universities have been creative about finding good fits. The gold standard for academic employment is, of course, tenure-track or tenured jobs. In our survey, we found that most second hires are in fact placed in tenure or tenure-track positions (see Figures 4 and 28-as noted earlier, it is important to remember that our sample includes full-time faculty only). Offering tenure-track or tenured positions to qualified partners can be "a win-win" situation for everyone involved. Our findings reveal that second hires are as productive as their disciplinary peers (see Are Second Hires Less Qualified Than Other Hires? below).

Partners who are not hired into regular faculty positions are often taken on as adjuncts-lecturers, research associates, visiting professors, and the like-with renewable contracts. A few even become permanent, senior lecturers or the equivalent with good job security. Overall 17 percent of second hires in our survey are taken on as adjuncts, research associates, and so forth. Universities who hire partners as research professors or research associates sometimes provide salary for two years as part of a startup package, but thereafter they expect candidates to provide their own salary and research money through sponsored research. These soft money positions can work in the sciences but are rarely sustainable in the social sciences or humanities where external funding is less available. Sev-

FIGURE 28: CURRENT RANKS OF FIRST AND SECOND HIRES AT PARTICIPANT MEDICAL SCHOOLS*キ


The majority of both first- and second-hire respondents at medical schools are in positions of assistant professor or higher.
eral partners in our survey commented that they held appointments that allowed them to work as principal investigators in laboratories but were offered few other resources. One vice provost noted that adjuncts at his university generally sought better positions as soon as possible; another reported that lecturers at her university had unionized in efforts to improve conditions.

One difficult situation institutions face is making offers to junior faculty whose partner will not finish his or her Ph.D. or the equivalent for another couple of years and will then go on the job market. Universities may lose their junior hire at that time or need to create another job. One university in our study allows a department or college to "lock in" a good-faith agreement (backed up with available funds) to consider hiring a partner of a particular candidate in the future. Another university may offer a partner of a junior hire a two-year postdoctoral fellowship. Although low-income positions, many postdoctoral fellowships require little teaching and allow the partner to build up a good research profile. This buys the university time to be able to perhaps place that partner.

These temporary or ad hoc positions for partners allow couples to move together, and some are designed to tide a partner over until a tenure-track position opens. Nonetheless, these types of positions can also disadvantage partners' ability to find good permanent employment because temporary positions typically do not provide the resources required to further careers. It is worth reiterating that, once the first hire has formally accepted an offer, his or her power to negotiate diminishes. One professor of English commented that universities need "to face the issue and bite the bullet" at the time of the first hire. Another professor commented that her department lost "a stellar hire" because the departments where the partner might "fit" would not make tenure-track offers. According to this professor, the couple ended up accepting offers at a "comparable university" (in terms of size, location, and research character) that offered the couple two tenure-track positions.

Nevertheless, some partners are willing to accept temporary lectureships, even unpaid courtesy appointments. Couples who wish to be together may choose to maximize their overall situation by accepting one partner's best job offer and settling for a less-than-optimal position for the other.

A number of respondents to our survey expressed interest in shared or split tenuretrack positions. ${ }^{51}$ "These can," one biologist commented, "be very family friendly."

Less than 1 percent of respondents with academic partners in our survey share or split a position. Only one university in our study offered shared faculty positions as an advertised option. Typically, if a position is split and each partner holds 50 percent, each is eligible for tenure. A number of faculty in our survey expressed interest in such fractional but mainstream positions (for any faculty member, not only couples) as a way to accommodate faculty who might have heavy family responsibilities and suggested that these positions be reviewed every five to seven years with options for new career opportunities as family circumstances change. This scenario works only in areas where the cost of living is sufficiently low for each faculty member to survive on half a salary. It should be noted that job sharing is often not an option for same-sex couples in states that do not allow partner benefits to be offered to unmarried couples.

## "My institution has had to be proactive about partner hiring because there is no 'peer university' or college within commuting distance."

- Professor of English

Although we did not study job sharing in detail, universities with experience in this area suggest that each half position is best treated as a completely independent position in terms of tenure, evaluations, and salary increases. They also note that expectations for "part-time" work should be laid out carefully ahead of time; part time can easily expand to full time without extra compensation or reward. Expectations for expanding part-time to full-time positions also need to be understood on both sides of the table before contracts are signed. Other considerations of importance for shared positions include the following: How independent or interdependent are they? If one half becomes vacant, does a partner have the right to assume the full position, or does that half revert to the department or central administration? What is the tenure process for fractional appointment?

## Geographic Location

A key factor in promoting couple hiring is the geographic location of the institution. Major universities in relatively isolated settings, such as small college towns, have a great need to accommodate couples, whereas institutions in metropolitan areas can sometimes successfully offer faculty to neighboring universities or at least expect that the partner will be able to find employment in the area.

Couple hiring can be a boon for universities with no peer institutions within commuting distance. Many of these institutions are in college towns where

## "My department has

what can be called a dual-career 'culture'; there is general consensus regarding the desirability of hiring academic couples inside and outside the department."

- Professor of History the low cost of living makes them great places to live and raise families. In our study, five (all of them public) of our 13 institutions are located in areas where they are the only major academic game in town. Many of these universities set aside funds for partner hiring and recognize the desirability of hiring academic couples. One endowed professor spoke of a dual-career "culture" in her department and noted that such hiring enhances faculty loyalty to the university.

Universities in metropolitan areas (eight in our study, five of them private) have the advantage of potentially placing partners in other local universities. It is not unusual, for example, for Harvard to call upon MIT or Boston University, Stanford upon Berkeley or Foothill College, or Columbia upon New York University or one of the many other local universities to place a partner or vice versa. Recognizing this advantage of having multiple academic institutions within reasonable commuting distance, universities are turning more and more to the Higher Education Recruitment Consortia (HERC). Thirteen HERCs, with more than 300 member institutions, have been founded since early 2000, first in Northern California and now in New England, Metro New York and Southern Connecticut, Chicago, Michigan, St. Louis, and elsewhere; a national office was established in 2008. They provide a systematic approach to what used to happen informally: They support the efforts of member institutions to "recruit and retain outstanding and diverse faculty and staff and to assist dual-career couples" through the sharing of "information, re-
sources, and best practices." ${ }^{52}$ The Northern California HERC includes 52 institutions, ranging from the California State Universities to Stanford and the University of California, Berkeley. Similarly, the Metro New York and Southern Connecticut HERC networks 42 colleges and universities, including Columbia University, Vassar College, Fordham University, and Yale. The usefulness of these organizations depends largely on geographic proximity between pairs of institutions.

The many HERCs springing up around the country provide web-based search engines that include listings for all faculty, staff, and executive jobs at member institutions and allow couples to search for two jobs simultaneously. Couples-especially at the junior level—can match job opportunities within specific geographic locations. One of HERC's strengths is facilitating collaboration between diverse institutions, which gives faculty partners a broad array of choices in searching for institutions that fit their preparation and background. As one provost remarked, however, other universities currently have little incentive to hire a partner from another university: "It's usually a long shot." But over time, HERC may build strong direct relationships among local institutions. Indeed, connections could warm when the partner proposed is better than a neighboring institution might otherwise be able to attract. They would also warm if cash were exchanged. A statistics professor commented that institutions might better deliver on their often earnestly held commitment to facilitating opportunities for dual-career academic couples if neighboring institutions explored "constructive, cash-exchanging partnerships." A university, such as the University of California, Berkeley, which provides housing benefits, for example, might profitably place a partner at nearby Mills College, which does not. Or the institution of the first hire might offer to pay part of a second hire's salary at a HERC member institution for a specified length of time-loosely following the model of departments that cost share within institutions.

Couples who do not find positions at the same or neighboring institution(s) often commute (or one may drop out of academia altogether). When professors face long commutes, universities tend to lose in terms of faculty research, contact hours with students, committee work, and, most importantly, in terms of the kind of serendipitous intellectual exchange that happens when people run into each other informally. ${ }^{53}$ Faculty tend to lose in terms of time spent with family and with scholarly colleagues. Needless to say, academic partners prefer to work near one another. The majority of survey respondents with academic partners (including those who work on different campuses) found faculty jobs within reasonable commuting distance (one hour or less). However, if necessary, some faculty will
commute thousands of miles and keep separate households in order to have the jobs they desire.

Couple hiring is a welcome solution for academic couples who have spent substantial time on the road. A woman faculty member in the humanities who was a second hire exuded, "I am incredibly fortunate to work at an institution where dual-career hiring is a universitywide priority and where funds are made available to make these hires possible. My husband and I commuted between academic appointments thousands of miles apart for five years and now are both tenuretrack in the same department. This possibility was instrumental in our decision to come to this institution. There are many dual-career couples in our department, so we do not feel professionally isolated because of our situation."

## Are Second Hires Less Qualified Than Other Hires?

One problem with couple hiring is that a stigma of "less good" often attaches to a second hire; as noted above, 74 percent of second-hire respondents in our sample are women. Twenty-nine percent of respondents in our survey reported that their departments had, in fact, hired a partner whom they considered "underqualified," and 37 percent of all respondents report that a second hire is treated with less respect than a first hire in their departments (Figure 23). These findings have serious implications. Hiring under-qualified faculty dilutes the quality of departments. Treating faculty as second-class citizens disrupts departmental colle-
"One partner is almost always perceived as better than the other. The other partner then suffers, in terms of what is offered, in reduced long-term support, and also psychologically as a second-class citizen."

- Professor of Medicine giality, leading to poor working conditions all around.

In the best-case scenario, departments make careful decisions, and second hires are well qualified and treated with respect. One female faculty member wrote, "Even though I was an accompanying hire, I have been treated with the utmost respect in my position, have received ample support, and have been very successful in reaching my goals. I am currently going through the tenure/promotion process (successfully so far) and feel that I have a rewarding future in front
of me at this institution." A woman professor in the humanities wrote, "My colleagues are wonderful and I have never been treated as a second-class citizen (in fact, I was told that they hired my husband so that they could hire me-not true, but a nice gesture)." Still another woman added that her experience has been good; her institution has treated both partners as regular faculty members each with distinct roles.

More often, though, the picture is not so rosy. A number of respondents commented that they have been treated like "trailing spouses" since they were hired. "It is a highly stigmatized situation," one lamented. Another stated, "Some colleagues see me first as someone's wife." A male faculty member noted that his institution regularly treats "secondary" hires as second-class citizens, regardless of gender, by offering the second hire a rank below his or her previous academic rank or, in his case, refusing to continue tenure, or both. A male professor of medicine commenting on couple hires said, "One partner is almost always perceived as better than the other. The other partner then suffers, in terms of what is offered, in reduced long-term support, and also psychologically as a secondclass citizen." He continued that, in his view, the most successful partner hires are those where couples are hired at the same rank and either work together as an effective team or work completely independently in separate departments. A second hire (a biologist) wrote that the downside for a second hire (when viewed as a trailing spouse) is that the university does just enough to keep him and his partner but that the package given him was limited in terms of position, salary, laboratory space, and money. Not having a "full laboratory," he continued, "slows down productivity and makes movement into a tenure-track position either here or elsewhere more difficult."

In some cases, institutional and departmental priorities and cycles may determine who becomes the first hire, and academic couples may flip lead partner over the course of their careers. In our survey, dual-hired faculty explained that at some times and in some places the current second hire has been the first hire. One partner in a same-sex couple in the humanities noted that she and her partner had managed four dual hires over 16 years at "full rank and full salary." Our data suggest this kind of success is rare. Her partner commented further that for two of those hires she was the first hire and for two of those hires her partner led. In a sense, who is the first hire-in couples who are well matched professionally-can be arbitrary and depend on the hiring priorities of an institution and what job has been advertised.

No matter who is hired first, however, the second hire may be made to feel unwelcome. Moreover, women who were hired by institutions through an open search and not as part of a couple hire are sometimes, nonetheless, seen as a "spousal" hire with the stigma that that might entail.

Given the strong views on this topic, we set out to measure the academic productivity of second hires in our data set. Academic productivity is complicated to examine and difficult to quantify. A scholar's productivity is a function of so many tangibles and intangibles, and measures of productivity-number of journal articles, number of books, their impact, and so on-vary greatly from discipline to discipline. In our data set, the issue of productivity and second hires is further complicated by small sample sizes. Among 9,043 respondents to our survey, 291 identified themselves as the second hire in a dual-hire scenario; when split by discipline, these numbers become, obviously, even smaller. Despite these methodological limitations and conceptual caveats, our data suggest that second hires are not less productive than are their disciplinary peers, contrary to the stereotypes and stigma attached to the partner who "follows."

Taking the three disciplines with the largest second-hire sample sizes in our data set (natural sciences, social sciences, and humanities), and looking at assistant, associate, and full/endowed professors only, we examined the relationship between second-hire status and number of articles published over the course of a career after controlling for the respondent's gender and rank, two major and interrelated "predictors" of publication rates. ${ }^{54}$ Although journal articles may carry more or less weight by discipline (in terms of calculating total productivity), we examined each discipline separately, such that an individual's article count was always compared with article counts of other scholars in her or his own discipline. Article counts varied reasonably in each discipline; to compensate for the skewed nature of the variable, we used a natural log transformation of number of articles to normalize the distribution.

Because books, rather than articles, are particularly important indicators of productivity for scholars in the humanities, we also examined the number of books published among respondents in this field alone, again using the natural log transformation of the variable and the same controls as we used in the articles analyses. Appendix C provides additional details about our methodology.

Starting with simple correlations, being a second hire was negatively correlated with the number of articles in both the natural and social sciences, but this relationship was reduced to statistical nonsignificance once gender and rank were controlled using linear regression procedures. In the humanities, being a second hire was not correlated with either measure of productivity (articles or books), and the variable did not enter either regression equation as a significant predictor. Thus, our data suggest that productivity levels among second hires are not significantly different from those among their peers after data are disaggregated by field, and gender and rank are accounted for. We should reiterate, however, that these data describe full-time faculty employed in tenure-track positions, that is to say, faculty who successfully landed tenure-line jobs and are still employed in academia. Of course, future analyses of productivity among larger samples of second hires and their peers must explore the many additional and complex factors that affect both publication count and record, such as impact of scholarship, available resources for research, and the like.

## Evaluating the Dual-Hiring Process

We close this report by looking at how academic couples evaluate their hiring processes. Ours is necessarily a crude measure given that practices differ greatly across institutions. We encourage universities to develop effective methods for evaluating their own policies and practices.

Dual-hire respondents in our survey were relatively satisfied with their hiring process because they are academics who achieved the "holy grail" of two positions (frequently tenure and tenure-track) at the same or neighboring institution(s) (Figure 29). As might be expected, the majority of respondents in this category (66\%) rate the dual-hire process at their university "good" or "excellent." The first hire typically goes more smoothly than the second. First hires (both men and women) found the process of their own hires good or excellent (78\%) but were not as happy with the hiring process for their partners. Second-hire respondents, by contrast, were, for the most part, satisfied with their hiring process, although it is important to keep in mind that second hires in our sample are full-time faculty members. First hires who found their partners' hiring process unsatisfactory may be reporting on partners who did not achieve full-time faculty status.

FIGURE 29: EVALUATING THE DUAL-HIRING PROCESS*


* Percentages do not add to 100 due to rounding.

If we zoom in on the 381 dual hires who were dissatisfied with their hiring pro-cess-that is, dual hires who rated at least one aspect of the hire "fair," "poor," or "very poor"-44 percent of them were dissatisfied with the second hire's offer; 32 percent were dissatisfied with the way their department chair handled the situation. The university upper administration was also cited as not lending sufficient support to the process (26\%). Finally, 27 percent thought that they did not receive what was promised during negotiations.

## Concluding Remarks

One professor in our study commented that dual hiring can be a "win-win strategy"-smart for universities because they are often able to "lock in" two excellent researchers; and smart for couples because, all other things being equal, they enjoy a better quality of life. Indeed, our data show that faculty take partners' career success very seriously when weighing their own career opportunities. With academic couples comprising some 36 percent of the professoriate and dual hires making up 10 percent of all hires in our study, couple hiring has become an important part of the institutional landscape. Our data suggest that today's academics are determined more than ever to strike a sustainable balance between working and private lives. When they have choices, couples prefer to live together and take jobs where each partner can flourish professionally. Universities risk losing prized faculty if suitable employment cannot be found for qualified partners.

This report has shown that couple hiring is also important for enhancing gender equality. Academic women more often than men have academic partners and more often than men refuse job offers if their partners cannot find satisfactory employment. Moreover, senior women first hires will, more often than men, seek to place partners who are their equals in terms of rank and status. Understanding how men and women think about, and value, their partnerships may help universities refine policies governing couple hiring in ways that promote greater gender equality.

Further, this study confirms that couple hiring is important for attracting more women to underrepresented fields, such as engineering and the natural sciences. Academics practice disciplinary endogamy; they tend to couple in similar fields of study and often work in the very same department.

As we have emphasized, dual-career academic hiring must be done carefully. In couple hiring, as in any faculty search, each case is unique and must be considered on its merits. No one gains from a weak or inappropriate partner hire-least of all the partner him- or herself.

A key recommendation of this report is that universities develop agreed-upon and written policies or guidelines for vetting requests for partner hiring. The purpose of such policies is to increase transparency, consistency, and fairness. We are not proposing that universities necessarily hire more couples; we are proposing that when a search committee or department chair is alerted to the fact that a candidate or faculty member has a partner seeking employment, each institution has a process that moves that request swiftly and carefully to an appropriate outcome. Transparent and consistent policies do not in themselves determine outcomes; they do not dictate standards for hires. Policies define the process by which partners are considered for hire. Outcomes depend on the quality of candidates, institutional priorities, and available funding.

Academic couples represent a deep and diverse talent pool. Dual-career academic hiring is today one of the many strategies universities are developing to recruit and retain top talent from the broadest range of applicants. Supporting dual careers opens another avenue by which universities can compete for the best and brightest and enhance competitive excellence.

# APPENDIX A <br> Study Methodology and Survey Demographics 

Designed by Stanford University's Clayman Institute for Gender Research, the Managing Academic Careers Survey presented up to 46 questions for all respondents, with six additional questions for respondents with academic partners (e.g., partner's rank and field of appointment) and another 11 questions for respondents who had participated in a dual hire (e.g., respondent was a first, second, or joint hire). The survey collected general data on faculty demographics, partner status, satisfaction, productivity, households, mobility, and perceptions of couple hiring. As part of the survey design process, the Clayman Institute convened a faculty seminar on dual hiring in November 2005 and two focus groups with Stanford administrators and faculty in January 2006. Survey questions were tested in live pilot sessions with Stanford faculty during the spring of 2006. The online version of the survey was piloted in July 2006.

Over the course of 2006, the institute recruited 13 leading U.S. research universities to participate in our study (five private institutions and eight public). Twelve of these 13 universities are classified in the 2005 Carnegie Classification as Research Universities (very high research activity) and one as a Special Focus Institution. Universities were selected to represent major geographic regions across the United States as well as metropolitan areas and college towns.

Between November 2006 and January 2007, the institute, with the assistance of each of our participant universities, administered the online survey to nearly 30,000 faculty who were identified as full time by administrators at each institution. The study was limited to full-time faculty because (1) this was the group of faculty to whom we had most ready access given institutional data and (2) this is the group that represents the core of the professoriate. Faculty were sent an e-mail invitation that described the project as "a
new nationwide faculty survey." Faculty received a total of four e-mails regarding the online survey (one introductory e-mail and three follow-up e-mails with the survey link). Survey respondents did not receive compensation for their participation. A total of 9,043 faculty responded to the survey, constituting a 30.4 percent response rate. ${ }^{55}$ Eleven percent of our faculty respondents ( $n=1,027$ ) provided substantive open-ended comments in addition to their survey responses; we report representative views across these comments. We also interviewed administrators and faculty at 18 universities (our 13 participant universities plus five others) in order to collect as many innovative dual-career hiring practices as possible.

Figure A-1 summarizes basic demographic characteristics of our respondents. The percentages of Hispanic/Latino/a and Black/African American respondents do not add to the total percentage of underrepresented racial/ethnic minorities (see Box 1 above, Partner Status of Underrepresented Minorities) because some respondents who were classified as "Other" marked multiple underrepresented ethnicities and/or Native American/Alaskan. These respondents are included in our full subsample of underrepresented minority faculty ( $n=596$ ).

As Table A-1 shows, women are overrepresented in our survey sample. Women comprise 41 percent of respondents, 31 percent (on average) at the institutions we surveyed, and about 38 percent of instructional and research faculty at four-year institutions nationally. ${ }^{56}$ However, we opted not to weight our survey data to "correct" for the overrepresentation of women because most of our core analyses and key results are conducted and reported for men and women separately.

Moreover, our sample is representative of the faculty population at our participating universities on other key measures. The proportion of underrepresented racial/ethnic minorities in our sample is essentially the same as that among the full population. In addition, the relative proportions of full, associate, and assistant professors in our sample are closely aligned to those in the population. (Nearly all of the 13 institutions provided rank statistics for their faculty population; only a small number of institutions, however, provided information on the numbers of off-tenure-track and adjunct faculty, so we report the population proportions of full, associate, and assistant professors only in order to determine the representativeness of our sample by rank.) The distribution of the faculty population by field was provided by some institutions, but not all; further, because of wide variation in the way that
institutions themselves structure schools and colleges, we decided to compare our distribution of respondents by field to a weighted national distribution of full-time faculty at four-year institutions. This comparison shows our survey sample to be fairly representative of all fields except humanities and medicine. Humanities faculty are underrepresented in our survey sample; medical faculty are overrepresented. Nearly all of our 13 participating universities have medical schools.

As noted earlier, it is important to remember that our sample included full-time faculty only, which means that our survey data are representative of full-time faculty only. The distribution of secondhire respondents by rank, for example, might be slightly different had all faculty (part time, full time, and otherwise) participated in the study.

FIGURE A-1: SURVEY DEMOGRAPHICS*


[^1]TABLE A-1: SELECT SAMPLE AND POPULATION STATISTICS: GENDER, RACE/ETHNICITY, AND PROFESSORIAL RANK*

## (ALL NUMBERS ARE ROUNDED AND VALID PERCENTAGES)

|  | "Managing <br> Academic <br> Careers" <br> respondent <br> sample: <br> ( $\mathrm{N}=9,043$ ) | "Managing <br> Academic Careers" respondent sample: Full, Associate, Assistant Professor only | Population at participating institutions |
| :---: | :---: | :---: | :---: |
| Gender <br> Women <br> Race/Ethnicity <br> Underrepresented minority | $41$ |  | $31$ <br> 8 |
| Current rank <br> Full Professor <br> Associate Professor <br> Assistant Professor <br> Lecturer, Instructor <br> Research Associate <br> Visiting Scholar, Emeritus, Medical School Faculty, Other | $\begin{array}{r} 36 \\ 24 \\ 27 \\ 7 \\ 2 \\ 4 \end{array}$ | $\begin{aligned} & 41 \\ & 28 \\ & 31 \end{aligned}$ | $\begin{aligned} & 44 \\ & 26 \\ & 30 \end{aligned}$ |
| Current rank: women only <br> Full Professor <br> Associate Professor <br> Assistant Professor Lecturer, Instructor Research Associate Visiting Scholar, Emeritus, Medical School Faculty, Other | $\begin{array}{r} 24 \\ 26 \\ 34 \\ 10 \\ 1 \\ 5 \end{array}$ |  | available |
| Current rank: men only <br> Full Professor <br> Associate Professor <br> Assistant Professor <br> Lecturer, Instructor <br> Research Associate <br> Visiting Scholar, Emeritus, Medical School Faculty, Other | $\begin{array}{r} 45 \\ 23 \\ 23 \\ 5 \\ 2 \\ 3 \end{array}$ |  | available |

Note. In our survey, respondents were asked to mark one of 11 rank categories. The first two were "Endowed Professor" and "Full Professor." For the purpose of this table, "Endowed" and "Full" are collapsed into one category. Population data from participating institutions do not differentiate between endowed and full. "Medical School Faculty" is a category for any respondent in Medicine who chose not to mark one of the other 10 categories due to different tenure and ladder lines in medical school. It was a category accompanied by a drop-down
menu that allowed respondents to indicate clinical/non-clinical position and status. Population data were collected from participating institutions and Association of American Universities Data Exchange (AAUDE); only those statistics for which data were obtained from at least 11 of the 13 schools are reported. Since not all of our institutions provided data such as sample size (which would have allowed us to compute weighted percentages), we have simply reported mean percentages on most measures.

TABLE A-2: SELECT SAMPLE AND NATIONAL STATISTICS: FIELD OF STUDY* (ALL NUMBERS ARE ROUNDED AND VALID PERCENTAGES)

|  | "Managing Academic Careers" respondent sample: ( $\mathrm{N}=9,043$ ) | National statistics |
| :---: | :---: | :---: |
| Current field of appointment |  |  |
| Business | 5 | 7 |
| Education | 5 | 8 |
| Engineering | 9 | 6 |
| Humanities | 18 | 31 |
| Law | 2 | 1 |
| Medicine | 28 | 6 |
| Natural Sciences | 19 | 21 |
| Social Sciences | 15 | 17 |
| Other | n/a | 3 |
| Current field of appointment: women only |  |  |
| Business | 4 | 5 |
| Education | 7 | 12 |
| Engineering | 4 | 2 |
| Humanities | 22 | 33 |
| Law | 2 | 1 |
| Medicine | 30 | 12 |
| Natural Sciences | 14 | 13 |
| Social Sciences | 18 | 17 |
| Other | n/a | 5 |
| Current field of appointment: men only |  |  |
| Business | 6 | 8 |
| Education | 3 | 6 |
| Engineering | 12 | 8 |
| Humanities | 15 | 29 |
| Law | 2 | 1 |
| Medicine | 27 | 3 |
| Natural Sciences | 23 | 25 |
| Social Sciences | 14 | 16 |
| Other | n/a | 3 |

APPENDIX B

# Percentage of Academic Couples in Same Department, by Gender 

|  |  | Men <br> Respondents with Partner in Same Department | Women Respondents with Partner in Same Department | All <br> Respondents with Partner in Same Department |
| :---: | :---: | :---: | :---: | :---: |
| All Bus | ess Departments | 27.8 | 48.4 | 35.6 |
|  | Agriculture/Forestry | 36.8 | 43.8 | 40.0 |
|  | Astronomy/Astrophysics | 45.5 | 100.0 | 60.0 |
|  | Atmospheric Sciences | 57.1 | 66.7 | 60.0 |
|  | Biochemistry | 46.7 | 41.2 | 43.8 |
|  | Biology | 56.3 | 53.8 | 55.2 |
|  | Biophysics | 20.0 | 0.0 | 16.7 |
|  | Botany | 33.3 | 75.0 | 57.1 |
| $\stackrel{E}{1}_{5}$ | Chemistry | 18.8 | 46.2 | 31.0 |
| $\sum_{i}$ | Computer Science | 10.5 | 100.0 | 15.0 |
| $\underset{4}{4}$ | Earth Sciences | 21.4 | 71.4 | 38.1 |
| $\begin{aligned} & \stackrel{\rightharpoonup}{\partial} \\ & 山 \\ & \text { U } \end{aligned}$ | Environmental Science/ <br> Conservation/Natural Resources | 25.0 | 50.0 | 35.7 |
| $\frac{\omega}{0}$ | Geology | 50.0 | 66.7 | 55.6 |
|  | Marine Sciences | 0.0 | 66.7 | 40.0 |
|  | Mathematics | 37.9 | 70.0 | 51.0 |
|  | Physics | 30.4 | 58.3 | 40.0 |
|  | Statistics | 30.0 | 33.3 | 31.3 |
|  | Zoology | 0.0* | 0.0* | 0.0* |
|  | Other (for Computational, Physical, and Life Sciences) | 23.1 | 37.9 | 29.4 |
| All Science Departments |  | 54.2 | 82.7 | 65.7 |


| All Education Departments |  | 54.5 | 35.9 | 42.3 |
| :---: | :---: | :---: | :---: | :---: |
|  | Aerospace | 0.0 | - | 0.0 |
|  | Architectural | 0.0 | 100.0 | 50.0 |
|  | Bio-/Biomedical | 0.0 | 33.3 | 9.1 |
|  | Chemical | 0.0 | 0.0 | 0.0 |
|  | Civil | 0.0 | 0.0 | 0.0 |
|  | Computer Science | 11.1 | 44.4 | 27.8 |
|  | Electrical | 6.7 | 0.0 | 5.6 |
|  | Environmental | 0.0 | 0.0 | 0.0 |
|  | Industrial | 0.0 | 33.3 | 20.0 |
|  | Materials | 16.7 | 25.0 | 21.4 |
|  | Mechanical | 22.2 | 57.1 | 37.5 |
|  | Nuclear | 0.0* | - | 0.0* |
|  | Other (for Engineering) | 16.7 | 0.0 | 14.3 |
| All Engineering Departments |  | 24.7 | 64.3 | 39.6 |
|  | Architecture/Applied Design | 33.3 | 33.3 | 33.3 |
|  | Art and Art History | 20.0 | 38.5 | 30.4 |
|  | Classics | 40.0 | 45.5 | 42.9 |
|  | English Language and Literature | 48.0 | 57.5 | 53.7 |
|  | Ethnic/Cultural/Area Studies | 0.0 | 45.5 | 35.7 |
|  | Foreign Language and Literature | 70.0 | 40.8 | 51.9 |
|  | History | 25.8 | 40.4 | 34.2 |
|  | Linguistics | 33.3 | 50.0 | 41.7 |
|  | Music and Music History | 57.1 | 50.0 | 55.2 |
|  | Philosophy/Religious Studies | 50.0 | 53.8 | 52.2 |
|  | Visual and Performing Arts | 46.2 | 55.6 | 50.0 |
|  | Women/Gender/Sexuality Studies | 0.0 | 0.0 | 0.0 |
|  | Other (for Humanities) | 28.6 | 18.2 | 25.0 |
| All Humanities Departments |  | 78.0 | 69.6 | 73.4 |
| All Law Departments |  | 38.4 | 78.9 | 62.5 |


|  | Anatomy | 0.0 | 0.0 | 0.0 |
| :---: | :---: | :---: | :---: | :---: |
|  | Anesthesiology | 27.3 | 50.0 | 33.3 |
|  | Biochemistry | 50.0 | - | 50.0 |
|  | Dentistry | 20.0 | 85.7 | 47.1 |
|  | Dermatology | 60.0 | 0.0 | 37.5 |
|  | Emergency Medicine | 50.0 | 50.0 | 50.0 |
|  | Family Medicine | 60.0 | 0.0 | 25.0 |
|  | Internal Medicine | 29.4 | 45.0 | 36.3 |
|  | Microbiology | 0.0 | 28.6 | 20.0 |
|  | Neurology | 0.0 | 37.5 | 21.4 |
|  | Nursing | 0.0 | 8.3 | 7.7 |
|  | Obstetrics and Gynecology | 50.0 | 14.3 | 30.8 |
|  | Ophthalmology | 0.0 | 0.0 | 0.0 |
|  | Optometry | 100.0* | 100.0* | 100.0* |
|  | Orthopedic Surgery | 0.0 | 50.0 | 33.3 |
|  | Otolaryngology | 0.0 | - | 0.0 |
|  | Pathology | 9.1 | 18.8 | 14.8 |
|  | Pediatrics | 57.1 | 18.8 | 34.0 |
|  | Pharmacology | 27.3 | 62.5 | 42.1 |
|  | Physical Medicine/ <br> Occupational Therapy/ <br> Rehabilitation | - | 0.0 | 0.0 |
|  | Physiology | 16.7 | 0.0 | 10.0 |
|  | Psychiatry | 23.1 | 9.1 | 16.7 |
|  | Public Health/Preventive Medicine/Clinical Social Work | 40.0 | 0.0 | 10.0 |
|  | Radiology | 45.5 | 22.2 | 35.0 |
|  | Surgery | 7.1 | 22.2 | 13.0 |
|  | Veterinary Sciences | 20.0 | 22.2 | 21.1 |
|  | Other (for Medicine) | 17.4 | 13.0 | 15.2 |
| All Medical Schools/Departments |  | 70.3 | 68.3 | 69.3 |


|  | Anthropology/Archaeology | 42.9 | 42.9 | 42.9 |
| :---: | :---: | :---: | :---: | :---: |
|  | Communications/Media Studies/Journalism | 31.8 | 21.4 | 27.8 |
|  | Economics | 42.1 | 69.2 | 53.1 |
|  | Geography/Urban Planning | 27.3 | 22.2 | 25.0 |
|  | Library/Information Science | 57.1 | 25.0 | 36.8 |
|  | Political Science/Government | 47.8 | 47.6 | 47.7 |
|  | Psychology | 52.4 | 41.7 | 46.7 |
|  | Public Policy | 28.6 | 16.7 | 23.1 |
|  | Social Work/Public Administration | 25.0 | 25.0 | 25.0 |
|  | Sociology | 63.3 | 57.6 | 60.3 |
|  | Other (for Social Work) | 43.5 | 24.3 | 31.7 |
| All Social Science Departments |  | 57.8 | 58.8 | 58.3 |

"-" means there were no respondents in this specific department

# APPENDIX C <br> Methodological Note for Productivity <br> Analyses 

Four linear regressions were conducted for these analyses: The first predicted the number of articles published over the course of a career among respondents in natural science subdisciplines; the second predicted the number of articles among respondents in social science subdisciplines; and the third and fourth predicted the number of articles and books, respectively, among respondents in humanities subdisciplines. Given the parameters for our analyses (i.e., excluding lecturers), there were 1,462 respondents in natural sciences (of whom 39 were self-identified second hires), 1,177 respondents in social sciences ( 66 second hires), and 1,335 respondents in humanities ( 68 second hires).

On the survey, respondents were asked to enter the number of articles they had published over their career; entries ranged from 0 to 999. In each discipline, the variable was extremely skewed; as a result, we analyzed number of articles expressed as a natural logarithm. The distribution of books among humanists was also skewed (although to a lesser extent than was the number of articles) and was therefore analyzed using the natural log. Listwise deletion was used for each regression, and final $n$ 's are listed in the table that follows.

In each regression, we controlled for three variables before testing the "effect" of second-hire status ( $0=$ not a second hire, $1=$ second hire) on total number of articles or books published: gender ( $0=$ male, $1=$ female) and rank (two categorical dummy variables for full professor and associate professor, each coded $0 / 1$, with assistant professor as the reference group). We selected these controls for two reasons.

First, gender and rank are important factors to consider in productivity, as previous research suggests. ${ }^{57}$ Rank is an obvious control both alone and as it relates to gender: Higher-rank-
ing faculty tend to have more publications, and higher-ranking faculty tend to be men. Previous research also suggests that women's productivity may be lower than that of their male peers even after accounting for gender differences in rank and experience, which may be at least partly attributable to gender differences in teaching commitments versus involvement in funded research, size of laboratories, and other structural, social, and cultural issues. ${ }^{58}$ At the same time, however, the average citation count per publication is higher among academic women than among academic men, even though men have a greater number of total publications (and citations) overall. ${ }^{59}$ Thus, gender and rank are closely tied to productivity-in terms of both quantity and quality of published work.

Second, women and lower-ranking faculty comprise a greater proportion of the 291 self-identified second hires in our data set (compared with men and higher-ranking faculty). Therefore, to separate possible "second-hire effects" from possible "gender and rank effects" described above, gender and rank must be controlled first in the regression models. Put in a different way, to quantify the relationship between being a second hire and number of articles or books published net of other factors that may affect their productivity, we first controlled for gender and rank. Second-hire status was tested in the third block.

As described in the body of the report, once gender and rank were controlled for in the natural and social sciences, the significant negative correlation between second-hire status and number of articles lost significance, and the second-hire variable did not enter the regression equations as a significant predictor. In the humanities, the simple correlation between sec-ond-hire status and number of articles or books was not significant to begin with and did not enter the regression equations as a significant
predictor. Thus, the publication records of second hires in the sciences and humanities did not significantly differ from those among their peers once data were disaggregated by field, and gender and rank were accounted for.

Small sample sizes indicate that the results of these regressions should be interpreted cautiously. Moreover, the samples for these analyses include faculty in full-time tenure-line positions only, meaning that these are second hires and colleagues who have been "successfully" hired
into the academy. Finally, we did not include several control variables here that might be included in future models using larger samples, such as time since degree, teaching responsibilities, and resources available for research. Inclusion of these controls would help to explain not only second-hire effects (or the absence thereof) but also any gender differences in total number of publications that could not be explained by rank alone. Analyses of scholarly effect would help to elaborate these findings as well.

## TABLE C-1: RESULTS OF LINEAR REGRESSIONS TO ESTIMATE THE RELATIONSHIP BETWEEN SECOND-HIRE STATUS AND NUMBER OF JOURNAL ARTICLES AND BOOKS PUBLISHED IN CAREER

|  | N (after listwise deletion) | Mean (SD) | Pearson's r |  | Final Beta |  | Adjusted $\mathbf{R}^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural Sciences | 1,458 |  |  |  |  |  | . 338 |
| Dependent variable: number of articles (natural log) |  | 3.67 (1.18) |  |  |  |  |  |
| Gender: female |  | 0.28 (0.45) | -. 207 | *** | -. 079 | *** |  |
| Rank: full professor |  | 0.51 (0.50) | . 545 | *** | . 646 | *** |  |
| Rank: associate professor |  | 0.22 (0.42) | -. 136 | *** | . 216 | *** |  |
| Second-hire status |  | 0.03 (0.16) | -. 061 | * | -. 012 |  |  |
| Humanities | 1,332 |  |  |  |  |  | . 296 |
| Dependent variable: number of articles (natural log) |  | 2.46 (1.18) |  |  |  |  |  |
| Gender: female |  | 0.49 (0.50) | -. 140 | *** | -. 046 |  |  |
| Rank: full professor |  | 0.40 (0.49) | . 474 | *** | . 648 | *** |  |
| Rank: associate professor |  | 0.33 (0.47) | -. 050 | * | . 323 | *** |  |
| Second-hire status |  | 0.05 (0.22) | -. 008 |  | . 021 |  |  |
| Humanities | 1,332 |  |  |  |  |  | . 372 |
| Dependent variable: number of books (natural log) |  | 0.80 (0.70) |  |  |  |  |  |
| Gender: female |  | 0.49 (0.50) | -. 161 | *** | -. 051 | * |  |
| Rank: full professor |  | 0.40 (0.49) | . 548 | *** | . 721 | *** |  |
| Rank: associate professor |  | 0.33 (0.47) | -. 092 | *** | . 322 | *** |  |
| Second-hire status |  | 0.05 (0.22) | . 000 |  | . 036 |  |  |
| Social Sciences | 1,174 |  |  |  |  |  | . 422 |
| Dependent variable: number |  |  |  |  |  |  |  |
| of articles (natural log) |  | 2.96 (1.17) |  |  |  |  |  |
| Gender: female |  | 0.46 (0.50) | -. 186 | *** | -. 028 |  |  |
| Rank: full professor |  | 0.39 (0.49) | . 557 | *** | . 741 | *** |  |
| Rank: associate professor |  | 0.28 (0.45) | . 014 |  | . 383 | *** |  |
| Second-hire status |  | 0.06 (0.23) | -. 063 | * | . 009 |  |  |

## APPENDIX D <br> Methods Notes for Figures

Not all figures and boxes have an accompanying methodological note.

Figure 1. Unless otherwise noted, (1) whenever we report sample sizes for a given group or subgroup, we report full $N$ 's (rather than valid $N$ 's for each survey item), and (2) all percents in this and following figures are rounded and valid. For additional details about methodology, please contact the study authors.

Figure 2. The $n$ 's for women and men do not add up to the $N$ for all because some respondents did not mark their sex on the survey.

Figure 4. On the survey, respondents were asked to mark one of 11 current ranks (the survey did not ask for respondent's rank at time of hire). In these and subsequent rank charts, and unless otherwise noted, "Other" includes respondents who marked "Other" as well as respondents who marked an option titled "Medical School Faculty." This latter option was for respondents in medicine who chose not to mark the position of full professor, associate professor, assistant professor, and so on. As noted in Appendix A, this option was accompanied by a drop-down menu that allowed respondents to indicate clinical or non-clinical status. For any given subgroup, the number of respondents who marked this option was relatively small.

For these and subsequent rank charts, full professor and endowed professor, two separate response options in the rank question, are collapsed. Respondents who marked full or endowed professor denote "senior-ranking" faculty throughout the text.

Figure 6. Because of different tenure and ladder lines in medicine, these data exclude all respondents and academic partners in the medical schools at our participating universities. Put
differently, an associate professor and assistant professor in medicine may actually have the same "status" but different ranks if one is on a clinical line and the other, on a non-clinical line. Thus, making statements about who is paired with "lower-," "equal-," or "higher-"ranking partners is most clear when looking at respondents outside of the medical school only. Analyses in Figure 6 are limited to respondents in heterosexual partnerships.

Figure 9. The survey asks respondents to list their year of appointment at their current institutions only. Each hiring cohort in this chart (1970s, 1980s, 1990s, 2000s) includes all survey respondents who were hired at their current institutions during that decade.

Box 4. Data include full, associate, and assistant professors only. Source: Digest of Education Statistics, 1973-2007, National Center for Education Statistics.

Figure 13. Because of the way survey branching was designed, these analyses were limited to respondents in academic couples where the academic partner was (1) currently working in the academy or (2) currently searching for work in the academy. The sample is further limited to respondents who provided general field of appointment for both her/himself and her/his partner.

Figure 14. Because of the way survey branching was designed, these analyses were limited to respondents in academic couples where the academic partner was (1) currently working in the academy or (2) currently searching for work in the academy. The sample was further limited to respondents who provided specific department of appointment for both her/himself and her/his partner.

Figure 15. Respondents were not asked to provide the racial/ethnic background of their partner, so "Underrepresented Minority Academic Couple" in this context refers to race/ethnicity of respondent only. Because of the way survey branching was designed, these analyses were limited to respondents in academic couples where the academic partner was (1) currently working in the academy or (2) currently searching for work in the academy. The sample is further limited to respondents who provided general field of appointment for both her/himself and her/his partner.

Figure 18. Data are limited to faculty respondents with partners who are currently employed. We define these respondents as having (1) employed, non-academic partners, (2) academic partners employed in the academy, or (3) academic partners employed outside of the academy. Sample sizes for these respondents by rank are provided in the chart.

Figure 20. The sample sizes listed in this chart are the numbers of men and women in academic couples who indicated that they have refused an outside offer in the past five years. These respondents were then asked to mark reasons for refusal on a simple "Yes/No" scale.

Figure 21. This survey question was measured along a five-point scale, from 1="Major loss" to 5="Major gain." In this chart, "percent reporting loss" includes respondents who marked "major loss" or "loss."

Figure 24. The survey asked sequential dualhire respondents to indicate if their dual hires were for recruitment or retention purposes. Data in this figure include first- and second-hire respondents in both recruitment and retention cases. In a series of survey questions specific to their dual-hire process, first- and second-hire respondents were then asked who raised the topic of partner employment: the first hire in the couple, the second hire in the couple, the hiring department/committee, the hiring dean, other, or "topic not raised."

Figure 25. Data are limited to first- and secondhire respondents in recruitment dual hires only, because the survey question ("What was the first time that job opportunities for the second hire were discussed?") was not asked of respondents in retention dual hires. In this chart, "rank" refers to rank of first hire (as provided by self-reported first hires plus partner rank data for self-
reported second hires); all possible response categories are included in the chart; and sample sizes are valid $n$ 's in response to this question.

Figure 26. Respondents who marked "no opinion" are excluded from these analyses. The percent of these respondents ranged from 15-24 percent of all valid responses to each question.

Figure 28. We define medical faculty as those who have primary appointments in field of medicine, marked "medical school faculty" in response to the rank question, and/or responded to a clinical/non-clinical line medical school drop-down menu on the survey. We do not split these data by sex because of small n's. As with earlier rank charts, "Other" includes respondents who marked "medical school faculty." Some of these respondents then went on to indicate their clinical status.

## APPENDIX E

# Model Dual-Career Program Guidelines 

## Dual-Career Guidelines for the University of Rhode Island

Prepared by the ADVANCE/PCOSW Work-Life Committee in collaboration with Human Resources and the Affirmative Action Office. See www.uri.edu/advance/ work_life_support/dual_career_guidelines.html (accessed June 26, 2008). Reproduced here with kind permission.

## Approved Policy Statement

The University of Rhode Island acknowledges the importance of supporting dual-career partners in attracting and retaining a quality workforce, and in its long-range economic benefit to the University, and is committed to offering placement advice and assistance whenever feasible and appropriate.

## What is the Dual Career Assistance

## Program?

University of Rhode Island recognizes that top faculty candidates increasingly have partners who simultaneously are seeking employment, and acknowledges that to remain competitive in recruitment and retention, it is important to consider the employment needs of partners in any faculty hire. Nationally, it is becoming an established reality that the presence of a successful dual career assistance program enhances institutional effectiveness in recruitment, retention, overall diversity, and family friendly climate. Thus, this program includes suggested guidelines to assist accompanying partners of job candidates in searching for appropriate employment opportunities. This program is envisioned to work in coordination with other Affirmative Action programs and goals.

## Employment Assistance, Not Job Placement <br> Dual Career Assistance at the University of Rhode Island is not intended to supersede Af-

firmative Action, Board of Governors, University policy, or collective bargaining agreement provisions. Due to the specifics of various labor union contracts, these guidelines currently are designed to meet the needs of AAUP faculty. However, the following recommendations are a first step in an ongoing process of developing guidelines that effectively address dual career needs at URI for all employees. Moreover, the University of Rhode Island recognizes the need to continuously evaluate the impact of dual career assistance on maintaining balance with the overall goals of diversity within the University.

The value of assisting individuals in dual career partnerships to obtain employment opportunities is readily acknowledged, and URI has established these guidelines in that spirit. However, it is critical to note that individuals are encouraged to take advantage of additional career search resources in Rhode Island and online, as the University does not guarantee or promise employment to job seekers.

## Proposed Dual Career Guidelines

## 1. Advertising

URI will add a notice of dual career guidelines to job advertisements stating that the University of Rhode Island is an EEO/AA employer that is responsive to dual career partners.

## 2. Providing Information

It is against the law for search committees to ask
potential hires about their partners. However, these committees should provide information to all potential hires regarding URI's accommodation of dual career partners. To qualify as a dual career partner, applicants must meet the "domestic partner" criteria as defined by state law and referred to in collective bargaining agreements (see III. 3. below). All candidates in a job search as well as current University employees have a right to inquire about opportunities and procedures for partner hires. Equal Employment Opportunity policies dictate that such inquiries will not influence hiring or promotion decisions.

The Office of Affirmative Action will provide these Dual Career Guidelines to all search committees at URI.

## 3. Definition of Domestic Partner

The State of Rhode Island defines "domestic partner" as an individual who is at least 18 years of age, has shared a common residence with the employee for a period of at least 1 year and intends to reside indefinitely with the employee; the partner and the employee are not married to anyone, they share a mutually exclusive, enduring relationship, and the partner and the employee consider themselves life partners, share joint responsibility for their common welfare and are financially interdependent.

## 4. Responding to a Request for

## Dual Career Assistance

A. Off-Campus Employment

Partners of candidates who have received tentative job offers may seek the services of Career Services, Human Resources, the Dean of the candidate's college, and/or Affirmative Action in searching for appropriate employment opportunities off campus. These representatives will be responsible for utilizing their formal and informal contacts to assist the partner in identifying, applying for, and interviewing for appropriate offcampus employment. A designated facilitator should be appointed in these cases, as well, and should be responsible for ensuring the best possible communication between University and community connections.

## B. URI Non-Academic Employment

Partners of candidates who have received tentative job offers may seek the services of Career Services, Human Resources, the Dean of the candidate's college, the Unit Director and/or Affirmative Action in searching for appropriate employment opportunities on campus. These representatives will be responsible for assisting the partner in identifying, applying for, and in-
terviewing for appropriate campus employment. The following steps should be taken:

1. The candidate who has received the tentative job offer should request assistance in identifying other on-campus employment for his or her partner.
2. The unit head/chair of the initial hires department/unit will request a copy of the partner's curriculum vitae and other relevant materials.
3. The unit head/chair will collaborate with Career Services, Human Resources, the Dean of the candidate's college, the Unit Director and/or Affirmative Action in identifying possible avenues for the partner.
4. The unit head/chair will collaborate in identifying an appropriate facilitator who will assist the partner in the job search, and ensure that all possible avenues are being explored for the partner.
5. An accompanying partner, like any other candidate, must be systematically reviewed by the hiring unit. If that unit believes the accompanying partner has appropriate credentials and has skills that are compatible with the unit's needs and mission, and/or if the partner meets published deadlines for application, they may request that the accompanying partner be considered for an interview or other placement alternatives (as described below).

## C. URI Academic Employment

When any candidate or existing employee inquires about academic employment at URI for a partner, the following steps are recommended:

1. The candidate who has received the tentative job offer should request assistance in identifying academic employment at URI for her or his partner.
2. The chair of his or her unit requests a copy of the partner's curriculum vitae and other relevant materials.
3. This information then is forwarded confidentially to the Department Chair and Dean of the College in which the accompanying partner is seeking employment, as well as to the Office of the Provost. These administrators will explore the fit between the partner and the target department.
4. Requesting departments should contact the Director of Affirmative Action as soon as possible in this process to discuss the feasibility of a specific dual-career partner request/waiver (see below) before submitting the paperwork, which includes the

Dual-Career Partner Request form, the vita of the individual under consideration, additional supporting documentation (per search committee leader), and a Request to Fill form.
5. An accompanying partner, like any other candidate, must be systematically reviewed by the hiring department. If that department believes the accompanying partner has appropriate credentials and has skills that are compatible with the department's needs and mission (e.g., if a forthcoming position is expected or if a new position is in line with planned program expansion), they may request that the accompanying partner be considered for a search waiver or other placement alternatives (as described below).
6. The appropriate Dean or Director must sign the Dual-Career Partner Hire Request form. The Director of Affirmative Action will forward a recommendation to the Provost, who is responsible for the final review. Various options for placing partners are listed below (Section 5.).

## D. Monitoring and Oversight

The AA/EEO will review the process of all dualcareer hires to ensure that discrimination of any type has not occurred.

The AA/EEO in cooperation with Human Resources (HR) and Institutional Research (IR) will regularly collect and provide information on dual-career requests and request outcomes to monitor the effectiveness of these guidelines in recruitment, retention, and diversity, and to ensure that no negative effects or discrimination against specific subgroups has occurred because of these guidelines.

## 5. Accommodation Strategies

Expedited application for open position. A partner of a finalist in a University search may request an interview for another open University position as long as they meet the published qualifications and as long as the application deadline is met. If a search committee chair receives such a request, Affirmative Action must be contacted.

Split position. In order to meet the needs of several departments/units, split positions can also be considered. The Vice Provost and/or Human Resources will coordinate these efforts.

## URI DUAL-CAREER HIRING GUIDELINES FOR FACULTY



Shared appointment. Faculty partners in the same academic discipline may ask to be considered for a shared appointment. In such cases, the concerned department must determine whether both individuals have appropriate credentials and have the potential to become tenured members of the department. The dean and chair will negotiate the terms arrangements on an individual basis.

Soft money appointment. Eligible partners may be hired as soft money positions, postdoctoral positions, or other short-term internal payroll positions. These appointments are fully eligible to apply for any tenure-line or more permanent positions that become available.

Visiting Professor position. In some situations, a temporary (usually not to exceed 1 year) Visiting Professor Position may be created in order to either meet the needs of a particular department or offer a specialty area to a department that would otherwise be unavailable. During this temporary Professorship, the academic partner is encouraged to apply for other open job opportunities within and outside the University.

Lectureships \& per course instruction. If no position can be identified, partners who teach may ask to be hired on a per-course basis, or for a lectureship.

Search Waiver Request. University Policy requires a national or regional search for faculty and professional staff appointments. The URI Dual-Career Partner Guidelines are designed for appointments that meet institutional priorities and that require rapid University action. In some cases, the Director of Affirmative Action may grant search waivers upon request based upon the criteria listed below. For staff postings, only external posting waivers may be granted as the University must comply with internal posting requirements as well as with requirements of specific unions. Decisions on request for waivers of search under this policy are made by the Director of Affirmative Action.

Criteria for a waiver of search: criteria are based whether or not the request contributes to the academic excellence, over-all productivity, or goal of gender equity and diversity of the particular unit and overall university climate.

Additional criteria for evaluating these requests include:

- Rationale for waiving the normal search requirement within the context of Affirmative Action
- Qualifications of the individual proposed in context of University need
- Impact of the hire on the University's Strategic Plan and institutional goals
- Consensus within the hiring department/ unit for the requested appointment
- Degree to which department/college/university funds support the position over time
- Likelihood of future success (e.g., job excellence, promotion and tenure)

While the University of Rhode Island recognizes the value of promoting opportunities for dual-career partners, and has established these guidelines to help secure this value, IT CANNOT GUARANTEE EMPLOYMENT TO ANYONE SIMPLY ON THE BASIS OF THESE GUIDELINES.

For other publicly available programs, see

## University of Illinois, Urbana-Champaign:

www.provost.uiuc.edu/communication/08/index.html

## University of Michigan:

www.provost.umich.edu/programs/ dual_career/index.html

University of Minnesota:<br>www1.umn.edu/ohr/rap/spousepartner/index.html

University of Wisconsin, Madison:<br>www.provost.wisc.edu/hiring/check. html

## Endnotes

1 All data derive from the Clayman Institute's Managing Academic Careers Survey unless otherwise noted. For a description of sample and methods, see Appendix A.

By "academic couple," we refer to our respondents who identified themselves and their partners as "academics." The 36 percent academic couples in this study, in other words, include all couples in which both partners are academics. These partners can be at any stage in their career: tenured, untenured, lecturer, or unemployed.

Following current practices in higher education, we use the term "partner" rather than "spouse" in our study. Universities who hire couples tend to do so regardless of marital status. Although some universities seek evidence of couple status, most institutions allow couples to define themselves, and we have done the same. Our report includes same- and opposite-sex couples.

The proportion of academic couples in our survey sample is corroborated by the Higher Education Research Institute's 2004-2005 national faculty study that found 32 percent academic couples at 4 -year institutions. J.A. Lindholm, K. Szelenya, S. Hurtado, and W.S. Korn, The American College Teacher: National Norms for the 2004-2005 HERI Faculty Survey (Los Angeles: Higher Education Research Institute, UCLA, 2005).

2 The first HERI faculty survey in 1989 found 33 percent academic couples at 4-year institutions (compared with 32\% in 2004-2005). A.W. Astin, W.S. Korn, and E.L. Dey, The American College Teacher: National Norms for the 1989-90 HERI Faculty Survey (Los Angeles: Higher Education Research Institute, UCLA, 1991). See also H.S. Astin, and J.F. Milem, "The Status of Academic

Couples in U.S. Institutions," in Academic Couples: Problems and Promises, eds. M.A. Ferber and J.W. Loeb (Champaign: The University of Illinois Press, 1997), 128-155, esp. 131. In our study as well (albeit limited by the cross-sectional nature of our data, that is, the survey was administered at one point in time and collects information on year of hire at current institution only, as well as number of years with current partner only), we see that the proportion of academic couples is relatively stable over three hiring decades (1980s, 1990s, 2000s) among faculty who have been with their current partner at least as long as they have been at their current institution. This is to say that the "supply" of academic couples among partnered respondents who were hired in this most recent decade is essentially the same as it was among partnered respondents who were hired to their current institutions 30 years ago.

3 All between-cohort and between-group differences discussed in the text of this report are statistically significant at $p<.05$ unless otherwise noted.

4 Harriet Eisenkraft, "Academic Couples," University Affairs (November 2004). www.universityaffairs.ca/issues/2004/november/academic_ couples_01.html (accessed March 25, 2008).

5 National Science Foundation ADVANCE grants have prompted several universities to do internal studies of dual-career hiring (see Report Part III). There are few systematic studies of the complex issues involved in couple hiring apart from Ferber and Loeb, eds., Academic Couples, and L. Wolf-Wendel, S. Twombly, and S. Rice, The Two-Body Problem: Dual-Career-Couple Hiring Practices in Higher Education (Baltimore: Johns Hopkins University Press, 2003). This latter study focuses on a range of institutions from liberal arts colleges to doctoral degree-granting
universities as well as all types of dual-career couples. Our study, by contrast, examines a representative sample of leading research universities only and focuses on academic couples in particular.

6 These include Columbia University ADVANCE Working Group dual-career studies (October 7, 2005, and May 19-20, 2005); Clayman Institute for Gender Research, Stanford University, dualcareer academic couple study launched 2006; "Dual Career Conference," Cornell University, June 19-20, 2007; "Advancing and Empowering Scholars: Transforming the Landscape of the American Academy through Faculty Diversity," Harvard University, April 11-13, 2008, with a session on dual hiring.

7 When we use the terms "dual hires" or "couple hires" in this report, we refer to respondents and their academic partners who were hired "sequentially" and "jointly" at their current institution(s)-for definitions, see Figure 3.

8 These are confidential studies made available to us for this study.

9 Figures from Heide Radlanski of the Stifterverband reported in Eick von Ruschkowski, "Raising Awareness," Science (March 7, 2003). http:// sciencecareers.sciencemag.org/career_development/previous_issues/articles/2240/raising_ awareness (accessed March 31, 2008).

10 Committee on Maximizing the Potential of Women in Academic Science and Engineering, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering (Washington, DC: National Academies Press, 2006), 5-5-5-6.

11 Although our proportion of underrepresented minority respondents is closely aligned to their proportional share of the faculty population at our participating institutions (see Appendix A), national data show that underrepresented minorities comprise an even greater proportion of the professoriate when all public and private four-year and two-year institutions are included: The U.S. Department of Education reports that 16.5 percent of scholars across all institutions were from minority groups in 2005, up from 12.7 percent in 1995. http://nces.ed.gov/programs/ digest/d07/tables/dt07_236.asp (accessed April $25,2008)$.

12 The proportion of women among our underrepresented minority faculty respondents is supported by national data. The Survey of Earned Doctorates Summary Report 2006 (T. Hoffer, M. Hess, V. Welch, Jr., and K. Williams) shows that women comprise the majority of doctorate earners in every racial/ethnic minority group (www.norc.uchicago.edu/NR/rdonlyres/ C22A3F40-0BA2-4993-A6D3-5E65939EEDC3/ 0/06SRFinalVersion.pdf; accessed April 23, 2008). Further, the U.S. Department of Education, National Center for Education Statistics, 2005 Integrated Postsecondary Education Data System shows that women comprise 52 percent of underrepresented minority faculty across all degree-granting institutions (http://nces.ed.gov/ programs/digest/d07/tables/dt07_236.asp; accessed April 23, 2008). Data from the 1990s corroborate these trends. According to the Higher Education Research Institute's (HERI's) report on race and ethnicity in the U.S. professoriate, women comprised only 35 percent of white faculty, versus 48 percent of African American faculty, 37 percent of American Indian faculty, and 43 percent of Latina/o faculty. H. Astin, A. Antonio, C. Cress, and A. Astin, Race and Ethnicity in the American Professoriate, 1995-96 (Los Angeles: CA: Higher Education Research Institute, UCLA, 1997).

13 Already in the late 1980s, employment opportunities for partners (both academic and nonacademic) were an issue in approximately one of five faculty appointments and resignations. D. Burke, A New Academic Marketplace (New York: Greenwood Press, 1988), 30.

14 The cost-benefit ratio for relocation varies by sexual orientation. D. Miller and A. Skeen, "POSSLQs and PSSLQs: Unmarried Academic Couples," in Academic Couples, eds. Ferber and Loeb, 106-127, esp. 114.

15 U.S. Census Bureau, 2006 American Community Survey: S1201. Marital Status, http:// factfinder.census.gov/servlet/STTable?_bm=y\&-geo_id=01000US\&-qr_name=ACS_2006_EST_ G00_S1201\&-ds_name=ACS_2006_EST_G00_ (accessed April 1, 2008).

16 The difference between women and men in the rate of academic coupling is corroborated by national statistics. Across all six survey administrations of the HERI Faculty Survey (1989-2005), a higher percentage of women report that they have an academic partner than do men. See, for example, Astin et al., The American College

Teacher, and Lindholm et al., The American College Teacher. Further, Astin and Milem found 35 percent men and 40 percent women in academic partnerships in 1997 ("The Status of Academic Couples in U.S. Institutions," 131).

17 Wolf-Wendel et al. have suggested the term "accompanying hire" for the second hire (Two Body Problem, 14). We find "second hire" or "partner hire" easier to say. Some administrators currently use "primary" and "secondary" hire, but, again, the terms "first hire" and "second hire" carry fewer value judgments.

18 We define "tenure-track" and "tenured" as positions of assistant professor and up. These data exclude respondents and partners in medical schools because of different tenure and ladder lines in medicine. Patterns, however, are similar when medical school respondents are included; that is, 73 percent of all dual hire respondents, inside and outside of medical schools, report that they and their partners are employed as assistant professors or higher. For this and all subsequent analyses of how academic couples pair by rank (e.g., Figure 6), respondents and partners in the medical school are excluded unless otherwise noted.

19 These respondents could have entered their current institution as a first or second hire at any point in the last 40 or more years. Moreover, when a "total sex count" of first and second hires in our data set is computed (i.e., to compute a "total sex count" of first hires, we combine sex of self-reported first hires and sex of partners of self-reported second hires, and to compute a "total sex count" of second hires, we combine sex of self-reported second hires and sex of partners of self-reported first hires), the proportions of women and men change and the ratio among second hires becomes more balanced, although women are still predominant: 36 percent men, 64 percent women second hires (versus $65 \%$ men and $35 \%$ women first hires). This finding partly reflects response bias in the survey sample (i.e., women's greater likelihood of response), although it is obviously difficult to establish bias completely in the absence of firstand second-hire population data by sex.

20 Differences in percentage off-tenure-track between female second hires and female and male first hires are statistically significant; however, the difference between female and male second hires does not reach statistical significance at $p<.05$, which is at least partly due to
the small sample size of male second hires.
21 Among these senior-ranking first hires, there is no significant difference between men and women in terms of mean age: 52.5 for men, 53.1 for women. There is, however, a significant difference in partner age: Female partners of men are, on average, 50.2 years old, whereas male partners of women are, on average, 55.6 years old. So women's partners tend to be older than men's by approximately 5 years, which helps to contextualize the differences that we observe in couple pairings by rank.

22 Age differences between partners of seniorranking male and female independent hires are similar to those between partners of seniorranking male and female first hires (discussed above), albeit slightly narrower (women's partner's tend to be older than men's by approximately 4 years).

## 23 See Endnote 2.

24 This analysis is one of a select number of analyses in this report in which we used multivariate statistical techniques. In this analysis, odds ratios were calculated using logit models where first-hire status (i.e., first hire versus second hire) was regressed on sex for each of three hiring cohorts: hired at current institution in the 1980s ( $n=36$ men and 45 women), hired at current institution in the 1990s ( $n=90$ men and 95 women), and hired at current institution since 2000 ( $n=176$ men and 241 women). Each odds ratio was significant at $p<.05$, that is, men were significantly more likely to be a first versus second hire than were women in each cohort. To test whether differences between the three odds-ratios were significant, interaction terms between gender and cohort were calculated and tested in an aggregate model. These interactions did not reach statistical significance at $p<.05$. Thus, the gender gap in odds of being a first versus second hire may be narrowing, but larger sample sizes are needed to determine if this trend is statistically significant over time.

25 For a fuller discussion, see B. Solomon, In the Company of Educated Women: A History of Women and Higher Education in America (New Haven, CT: Yale University Press, 1985). See also S. Rice, L. Wolf-Wendel, and S. Twombly, "Helping or Hurting Women? The Case of a Dual Career Couple Policy at the University of Kansas," in Women, Universities, and Change: Gender Equality in the European Union and the

United States, ed. M. A. Danowitz (New York Palgrave Macmillan, 2007), 197-214.

26 T.B. Hoffer, M. Hess, V. Welch, Jr., and K. Williams, Doctorate Recipients from United States Universities: Summary Report 2006. www. norc.org/NR/rdonlyres/C22A3F40-0BA2-4993-A6D3-5E65939EEDC3/0/06SRFinalVersion.pdf.

27 Previous work estimates that 62 percent of married women with science Ph.D.s have partners with science Ph.D.s, whereas only 19 percent of men with science Ph.D.s have partners who do. G. Sonnert, Gender Differences in Science Careers: The Project Access Study (New Brunswick, NJ: Rutgers University Press, 1995), 158. Our percentage of scientists coupled with other scientists is higher than is Sonnert's estimate in part because our "base" (academic couples only) is a smaller group than is theirs (all married women and men with science doctorates).

28 M. Rossiter, Women Scientists in America: Struggles and Strategies to 1940 (Baltimore: Johns Hopkins Press, 1982); L. Schiebinger, The Mind Has No Sex? Women in the Origins of Modern Science (Cambridge: Harvard University Press, 1989).

29 S. Sweet and P. Moen, "Coworking as a Career Strategy: Implications for the Work and Family Lives of University Employees," Innovative Higher Education 28 (2004): 255-272.

30 Astin and Milem found that both men and women with academic partners held higher academic ranks than other faculty after controlling for other variables. Astin and Milem. "The Status of Academic Couples in U.S. Institutions," 137.

31 Among partnered respondents to our survey, men tend to be slightly older, on average, than women ( 50.6 years versus 46.7 years). Men's partners tend to be, on average, approximately 2 years younger, whereas women's partners tend to be, on average, approximately 2 years older (48.3 and 48.8, respectively), suggesting that age differences in heterosexual couples is one of several factors that can help to explain why male partners tend to be more established than female partners in their careers.

32 A. Ledin, L. Bornmann, F. Gannon, and G. Wallon, "A Persistent Problem: Traditional Gender Roles Hold Back Female Scientists," European Molecular Biology Organization Reports 8 (2007): 982-987, esp. 985.

33 K. Miller-Loessi and D. Henderson, "Changes in American Society: The Context for Academic Couples," in Academic Couples, eds. Ferber and Loeb, 25-43, esp. 36.

34 Being partnered with an academic may increase productivity. Wolf-Wendel et al., TwoBody Problem, 4; E. Creamer, "Knowledge Production, Publication Productivity, and Intimate Academic Partnerships," The Journal of Higher Education 70 (1999): 261-277. Other work shows no significant effect of couple status on productivity. See Marcia Bellas, "The Scholarly Productivity of Academic Couples," in Academic Couples, eds. Ferber and Loeb, 156-181, esp. 163.

35 Astin and Milem, "The Status of Academic Couples in U.S. Institutions," 136.

36 Salaries in our study are self-reported. Respondent's salary is a set of categories from 1 to 18, corresponding to categories of income from less than $\$ 20,000$ to $\$ 400,000$ or more. This analysis uses the midpoint of each salary range and includes all respondents in tenure and tenure-track positions (assistant, associate, and full/endowed professor) who provided valid responses for both salary and field ( $n=7,184$ ). Salary is regressed on dual hire status (indicators for first, second, and joint hires with non-dual hire as the reference category) after controlling for rank (indicators for associate professor and full/endowed professor with assistant professor as the reference category), field (indicators for seven major fields with natural science as the reference category), and gender. An indicator for working at a university located in a city with a high cost of living was included in the model as well. Results show that first hires and joint hires earn significantly more than do non-dual hires ( $p<.05$ ) even after rank, field, gender, and cost of living are controlled for, whereas there is no statistically significant difference between the salaries of second hires and non-dual hires.

37 Goeppert-Mayer had a paid half-time position at Argonne National Laboratory in the 1940s but not at the University of Chicago. J. Dash, A Life of One's Own: Three Gifted Women and the Men They Married (New York: Harper \& Row Publishers, 1973), 231-346, esp. 313.

38 See the excellent discussion of legal issues in university hiring in Wolf-Wendel et al., TwoBody Problem, Chapter 9, esp. 125. L. Perkins, "For the Good of the Race: Married African-

American Academics-A Historical Perspective," Academic Couples, eds. Ferber and Loeb, 80-105, esp. 96. Further, in their study of dual academic couples, L. McNeil and M. Sher found that in many states, anti-nepotism laws are still on the books. See www.physics.wm.edu/~sher/ survey.pdf (accessed March 25, 2008).

39 Spring 2005 the U.S. Government Accounting Office issued a report prepared for Senators Ron Wyden and Barbara Boxer calling for universities to comply with Title IX of the U.S. Education Amendments specifically in the areas of science and engineering. Government Accounting Office report available at www.gao.gov/new. items/d04639.pdf (accessed March 25, 2008).

40 Some Dual-Career Programs date back to the 1980s; others were founded in the last few years. For a study of 18 dual-career programs in the United States and Canada, see M. Fleig-Palmer, J. Muirrin, D. Palmer, C. Rathert, "Meeting the Needs of Dual-Career Couples in Academia," CUPA-HR Journal 54 (2003): 1-6, esp. 3-4. See also Laurie Mayberry, "Dual Career Couples: What One University Does to Help," CSWP Gazette: Newsletter of the Committee on the Status of Women in Physics of the American Physical Society 25 (2006): 4.

41 For Cornell, see www.ohr.cornell.edu/contactHR/rec/dualcontactlnfo.html (accessed March 25, 2008); for Pennsylvania State, see www. ohr.psu.edu/diversity/services/dual-career.cfm (accessed March 25, 2008); for Johns Hopkins University, see http://hrnt.jhu.edu/cmp/2career. cfm (accessed March 25, 2008).

42 For Harvard, see hno.harvard.edu/gazette/ daily/2005/05/women-faculty.pdf, 33-35 (accessed March 25, 2008). For Berkeley, private communication.

43 L. Wolf-Wendel, S. Twombly, and S. Rice, "Dual-Career Couples: Keeping Them Together," The Journal of Higher Education 71 (2000): 291-321, esp. 294.

44 An excellent model set of guidelines was developed by the University of Rhode Island in conjunction with its National Science Foundation ADVANCE grant (reproduced with permission in Appendix E). Another ADVANCE program to watch is Columbia University's The Earth Institute. One of its several studies of dual-career hiring is available at www.earth.columbia.edu/ advance/documents/STRIDE_dual_career_fi-
nal_000.pdf (accessed March 25, 2008). The University of Minnesota points to other aspects of the hiring process, such as issues concerning international faculty: http://www1.umn.edu/ohr/ test/groups/ohr/@pub/@ohr/documents/asset/ ohr_87020.pdf (accessed June 18, 2008). The University of Michigan has a developed program www.provost.umich.edu/programs/dual_career/ index.html (accessed March 25, 2008). Essential documents for many universities' programs are not publicly available.

45 "Institutional and departmental support" is a four-item factor derived from a principal components factor analysis (using varimax rotation) of 13 faculty attitudes and views toward dual hiring (Figure 23). Items that comprise this factor are as follows: My department head/chair makes every effort to accommodate dual-career academic couples, my university administrators make every effort to accommodate dual-career academic couples, faculty members of my department favor dual-career academic couple hiring/retention when our department has the initial hire, faculty members of my department favor dual-career academic couple hiring/retention when our department has the accompanying hire. Each item is measured on a 4-point agree/ disagree scale. The Cronbach's alpha value for this factor is .73. Means on this factor were tested by school using one-way ANOVAs.

Virginia Tech's small 2004 study of 20 dual-career couples also found that faculty members were more receptive to partner hires if they had prior experience with dual hiring. Virginia Tech, Dual Careers and Virginia Tech: 2004 InterviewBased Study of Dual Career Experiences at VT, April 20, 2004. www.advance.vt.edu/Measur-ing_Progress/Dual_Career_Interviews/Dual_Career_Handouts.pdf (accessed June 18, 2008).

46 Categories protected by law are age, gender, race or ethnicity, national origin, religion, disability, and veteran status. Wolf-Wendel et al., TwoBody Problem, Chapter 9, esp. 126-128. Human resources guidelines at many institutions prohibit asking candidates about private matters, including their partnering or marital status.

47 Several universities have made their guidelines for these processes publicly available. In addition to guidelines noted in Endnote 45, see also those of the University of Wisconsin, Madison (www.provost.wisc.edu/hiring/check. html; accessed March 25, 2008) and the University of Illinois, Urbana-Champaign (www.
provost.uiuc.edu/communication/08/index.html; accessed March 25, 2008). For an evaluation of UIUC's program, see J.W. Loeb, "Programs for Academic Partners: How Well Can They Work?" Academic Couples, eds. Ferber and Loeb, 270298. Universities need to adapt policies to best fit their own institution and culture.

48 On this general topic, see L. R. Rodgers, "The Chair's Challenge: Hiring and Managing Couples and Partners," The Department Chair 11 (2000): 10-12.

49 Some universities calculate the net cost to the department/program for hiring a partner by considering direct costs, such as salary, startup costs minus anticipated income from teaching, research, or endowment revenues.

50 See, for example, the University of Minnesota's transmission form: www.provost.uiuc.edu/ communication/08/Comm08_attach01.pdf (accessed May 13, 2008). Requests for such funds can be very formalized and require the following information: explanation of the importance of the first hire and the need for a second (partner) hire, a statement of support from the chair or dean of the primary department or college with the financial commitment of one-third faculty line, a statement of support from the chair or dean of the second department or college with the commitment of one-third faculty line, a request for search waiver, and the timing issues that are involved.

51 Interest in fractional, but mainstream, positions has increased. See University of Washington 2004 study: www.engr.washington.edu/ advance/resources/Final_Report_to_Sloan.pdf (accessed January 7, 2008).

52 More information about regional HERCs can be found at www.nationalherc.org (accessed May 19, 2008). In addition to HERC, an annual dual-career conference has been hosted by the Higher Education Dual Career Network since 2003. The conference draws together dual-career directors, faculty, and administrators interested in sharing best practices and learning about dual-career policies, practices, and programs. See www.hr.utah.edu/dualcareer/conference08/ about.php (accessed June 20, 2008). Seven universities across southern Germany and Switzerland have created a transnational network in efforts to foster dual careers. See www.uni-konstanz.de/familienaudit/?cont=dual\&lang=de (accessed June 19, 2008).

53 On the difficulties of commuting, see M. Stuck and M. Ware, "We're Both Tenured Professors...but Where Is Home?" Journal of Lesbian Studies 9 (2005): 41-56.

54 L. Perna, "Sex Differences in Faculty Salaries: A Cohort Analysis," Review of Higher Education 24 (2001): 283-307. L. Sax, L. Serra Hagedorn, M. Arredondo, and F. Dicrisi III, "Faculty Research Productivity: Exploring the Role of Gender and Family-Related Factors," Research in Higher Education 43 (2002): 423-446.

55 Survey response rates have been declining over time. J. Krosnick, "Survey Research," Annual Review of Psychology 50 (1999): 537-567, esp. 539. However, response rates themselves do not constitute bias. More important to consider is whether the survey sample is reasonably representative of the population under study. L. Sax, S. Gilmartin, and A. Bryant, "Assessing Response Rates and Nonresponse Bias in Web and Paper Surveys," Research in Higher Education 44 (2003): 409-432; Krosnick, "Survey Research," 540-541. See the balance of Appendix A for a discussion of representativeness.

56 Women comprise 38 percent of full-time faculty (instruction and research) at 4-year public and private institutions. Source: Table 228, Digest of Education Statistics: 2006. U.S. Department of Education, National Center for Education Statistics, 1999 and 2004 National Study of Postsecondary Faculty (NSOPF:99;04). Of the research institutions we surveyed for this report, women represent between 19 and 41 percent of university faculty (with an average of $31 \%$ women faculty). For insight into gender bias in survey research, see D. O'Rourke and E. Lakner, "Gender Bias: Analysis of Factors Causing Male Underrepresentation in Surveys," International Journal of Public Opinion Research 1 (1989): 164-176.

57 L. Perna, "Sex Differences in Faculty Salaries," 301; Sax et al., "Faculty Research Productivity," 435.

58 M. Bellas and R. Toutkoushian, "Faculty Time Allocations and Research Productivity: Gender, Race, and Family Effects," Review of Higher Education 22 (1999): 367-390, esp. 373. Y. Xie and K. Shauman, "Sex Differences in Research Productivity: New Evidence about an Old Puzzle," American Sociological Review 63 (1998): 847-870, esp. 863. J. S. Long, "Measures of Sex Differences in Productivity," Social Forces 72 (1992): 159-178, esp. 159-160.

59 G. Sonnert, Gender Differences in Science Careers, 54-55. Long, "Measures of Sex Differences in Productivity," 173-174. See also National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, Beyond Bias and Barriers, 4-9 and 4-10, for a discussion of factors that affect and explain sex differences in productivity.


[^0]:    Part III. University Programs, Policies, and Practices: How to Maximize Options? examines current university policies and practices surrounding couple hiring. Here we lay out the many issues surrounding such hires and, where possible, offer new solutions.

[^1]:    * Because of the way our data were gathered, the proportion of same-sex faculty was computed among partnered respondents only.

