## Faculty Career Trajectories and the Institutional Factors that Shape Them: Comparative Analysis of Longitudinal Faculty Interview Data

A Report to the LEAP Project

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### Abstract

Four institutional factors are identified that can impede faculty career development, especially for women. While most faculty cope with one or more of these systemic factors as part of their work lives, when these factors are present together, they can have cumulative, negative impacts well beyond the role of any one factor singly. Three case exemplars highlight these factors and their role in individual career progress and career decisions. While the stories in these cases are individual, they are exemplars because they make clear the role these factors have in an institution's ability to retain a diverse faculty. The systemic factors and exemplars are drawn from comparative analysis of data from 49 first-round and 20 second-round in-depth interviews with women and men faculty participants in the LEAP project. We consider the findings in light of the goals of LEAP, and the ADVANCE projects collectively, for institutional transformation.

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### I. Introduction

### A. Overview of the Project

LEAP (Leadership Education for Advancement and Promotion) is one of several NSF-funded ADVANCE initiatives for "institutional transformation." Both collectively and on their individual campuses, the ADVANCE projects seek to increase the representation of university women in leadership positions in the STEM (science, technology, engineering and mathematics) fields. Faculty development is the central change strategy selected by LEAP, which shares with most faculty development efforts the assumption that the faculty member is "the driving force behind the institution—therefore, assisting that person to be as productive as possible will make the entire institution more productive" (POD 2002). The primary activities LEAP organized to achieve this end were "leadership workshops," intended to help individual faculty members be successful in their careers and develop into institutional leaders, and to provide a forum to discuss problematic issues in academe. These workshops were offered at both beginning and advanced levels, serving primarily pre-tenure faculty and, separately, senior faculty undertaking or considering moves into leadership roles. A workshop for recently tenured associate professors was added later. In addition, LEAP has trained coaches and organized coaching partnerships aimed at providing low-risk mentoring relationships for junior faculty with senior faculty from different disciplines and departments than their own.

### **B.** Evaluation Approach

This report is the result of a longitudinal analysis of 20 participants in the LEAP project. It is part of a larger qualitative evaluation that seeks to understand the individual and institutional impact of the project. We have written elsewhere on the benefits of participating in LEAP activities (Laursen, et al. 2005) and on the additional needs for both individual career development and institution-wide change that participants identified (Laursen and Rocque, 2006). In the first report, we concluded that the kinds of benefits faculty received from their participation were largely individual, such as gains in time management and interpersonal skills, and increased understanding of the institution and how to negotiate it. Some participants felt more connected to others as a result of participation, gaining a new network of people—fellow workshop participants—to contact when they had questions or faced career dilemmas, or simply to meet for coffee to discuss more mundane challenges of academic life. Faculty also offered their own critiques of LEAP's change strategy and whether it could effect the larger changes desired. While individuals did benefit from LEAP, in that report we urged LEAP to draw on and continue to develop the enthusiasm for such a program among faculty that our evaluation had documented, in order to further build individuals' skills and influence a wider group of faculty.

In our second report (Laursen & Rocque, 2006), we categorized and discussed faculty needs for individual faculty development, in addition to (and reinforcing) LEAP's existing offerings. This information provides guidance to faculty developers, but also identifies a set of concerns that go beyond the individual level, seen by faculty as systemic issues. We distinguished faculty development needs—those that may be met by individually-targeted resources—from faculty concerns that require broader institutional action to identify and address ways in which university organizational cultures can reduce faculty job satisfaction and hinder success of underrepresented women and others. Some of the programs LEAP has more recently developed are responding to unmet faculty development needs.

Broader institutional changes are both harder to undertake and harder to evaluate. Because LEAP's change strategy focuses on cumulative impact of individual change as a route to departmental and institutional reform—almost by definition a slow process—it has been challenging to evaluate how this type of institutional change might be achieved, and to understand in what ways the benefits that participants report may accumulate to generate real, long-term change, both in individual faculty lives and at the institutional level. One approach to that evaluation challenge has been to focus on the individuals involved, following longitudinally the development of individual faculty and their perceptions of the larger institution. We have looked for changes in faculty views of their career and its prospects, their goals, their job satisfaction, morale and optimism, and everyday experiences of and feelings about their department and the institution. While these are not the only ways that institutional change might be observed, that approach has merit in this case because LEAP has worked directly with faculty as a major part of its efforts. We are thus interested in how institutional transformation might appear as seen through a faculty lens, and look for such evidence in this report.

### C. Overview of this Report

In this report we examine the narratives of LEAP participants, to discover what has happened in their lives since first participating in LEAP programs, and what impacts they may attribute to that participation or LEAP's broader influence on campus. In particular, we conducted follow-up interviews with 20 of our original 49 interview participants, some 16 months to two years after the first interview (which was itself conducted 8-12 months after participation in a LEAP workshop or coaching program). Most of the interviewees were early-career faculty, because the LEAP workshops concentrated on this group<sup>1</sup> and because we expected their career success might be most immediately affected by participation. Most were women, because of LEAP's interest in women's career success. We asked about their career path to date, their experiences on the tenure track, major challenges in their careers and lives, and their participation in LEAP and the effect it might have had on their lives. The interviews were strongly based on the content of the initial interview, things that were going well, and the extent to which they had met or not met the goals and expectations expressed in the first round.

When analyzing these data, in addition to detailed content coding of these interview transcripts, we 'simplified' each person's story as told in the two interviews, gradually extracting from these a small set of factors that appeared in both narratives. We characterized each person's narrative arc, or what we came to call their career trajectory,<sup>2</sup> from the early to the later interview, along these dimensions. Ultimately, these simplified characterizations comprise a group snapshot of the career trajectories represented in this group, and allow us to examine the impact of a small set of systemic factors that appear to have a dominant impact on each individual's career success and job satisfaction.

In this report, we define and discuss these four systemic factors in broad strokes—tenure and career status; climate; work/life balance; and finances. Some we anticipated to be important—tenure status, and work/life balance—while others emerged from the data itself, including the

<sup>&</sup>lt;sup>1</sup> In addition, the long follow-up intervals in this study design required us to draw on early program cohorts, and workshops for early-career faculty were a priority early in the grant period.

<sup>&</sup>lt;sup>2</sup> Trajectory: "the path a moving object follows," a path, progression or line of development.

surprising impact of finances and the important role of department climate. We describe these four factors and analyze their role in the trajectories of the 20 individuals who completed both interviews. We then present three case exemplars that illustrate how these factors, individually and collectively, manifest and play out in individuals' lives and impact retention decisions. Though each individual makes her own decision about whether to stay or leave, collectively these factors may be powerful influences on gendered patterns of attrition at the university (Marschke et al., 2007). These three cases illustrate that, for women faculty, even when life is good, institutional pressures can add up to alter a career trajectory for the worse.

Our analysis places individuals' experiences of these career-determining factors into the larger contexts of the UCB campus, the LEAP project, and academia more generally. By demonstrating their effects on individual faculty lives, we can analyze how these factors may impede or support a career. Indeed, when a job goes bad for people, it is often because multiple factors are weighing them down. We liken faculty on the tenure track to competitors at a bizarre track meet in which some runners must carry weights as they compete, while others are not thus burdened. These weights represent systemic and cultural factors that can be addressed—the weights removed—to improve quality of life for faculty and, ultimately, faculty productivity and retention. While these factors are neither simple nor easily addressed, by identifying them and clarifying their influence on faculty lives, we can suggest targets for change to those who take on the difficult task of improving faculty life and improving institutional diversity.

Why does this matter? LEAP and its sister ADVANCE projects seek to "level the playing field," making academia fairer and career success for STEM women more likely. Institutional factors that impede faculty success do not have equal impact on every individual—some affect women more than men, parents more than non-parents, or members of some departments more than others. Thus, their negative role in faculty career success and job satisfaction may have a differential impact on retention or success of faculty. Indeed, we have empirical evidence that losses of faculty women exceed those of men in some career stage/age groups, and that such losses have a long-term negative impact on faculty gender representation (Marschke et al., 2007). Differential losses of faculty groups are not characteristic of a well-functioning meritocracy where the best can rise, but rather reflect an uneven playing field where some of the best may rise, but some may also leave. When faculty leave, the university loses its economic investment in their recruitment, training, and start-up packages, as well as the unknown benefit of the unique intellectual and community contributions which that person might make.

## II. Methods

In this section we discuss our methods for this research. Specifically, we review how we identified the four systemic factors that we argue can impede career success, how we classified participants' career trajectories, and how and why we selected the three exemplars.

## A. The Longitudinal Interview Sample

The data on which this report is based comes from qualitative cases consisting of two interviews each with 20 faculty—three men and 17 women—conducted about two years apart. It is a subset of a larger sample of 49 faculty (34 women, 15 men) drawn for the LEAP evaluation. While both women and men were invited to participate in LEAP's activities, women made up the larger portion of participants, particularly in the program cohorts that participated early enough to be included in the longitudinal sample. Women are also emphasized in this longitudinal sample because of the focus of the ADVANCE program on women's underrepresentation. Women, we

found, faced challenges in academe that men did not. Seven of the 20 participants were tenured faculty at the time of their initial interview; two others gained tenure between our first and second interview. The cases are drawn from faculty in the natural and social sciences, humanities, and engineering, because LEAP programs were offered to and attended by faculty in all fields. Part of the analysis presented in this paper addresses the patterns seen across all 20 cases, and part addresses particular cases as exemplars.

### **B.** Data Gathering and Analysis

After the first round of interviews were completed, they were transcribed and coded. Each transcript was painstakingly read line by line and each discrete idea identified and labeled with a code. Taken together, these codes describe the thematic content of the interviews and allow for ready retrieval of quotations and analysis. After coding was complete, we began analysis by looking for patterns among their responses. Framed by an overarching concern with gender inequality and its impact on women faculty, and familiar with the existing literature on the challenges women faculty face, we expected to find evidence of gendered differences in areas such as department and campus climate, tenure and promotion processes and career status, and work/life balance. As we discuss below, we did indeed find evidence that these factors are important to the career success of women in academe. What was surprising to us about these issues, however, was the seemingly disproportional effect these factors could have on an individual's life. Factors such as lack of work/life balance, a difficult department climate, and tight finances, if severe enough, could create difficult working conditions and impede career success.

In addition to detailed coding, each first-round interview was summarized into a brief digest, including all the issues of primary importance to the interviewee and to our research questions. Because they temporally transported the interviewer back to the first interview with a given interviewee, these digests allowed the interviewer to ask personalized and highly pertinent questions during the second interviews, probing for improvement or degeneration of specific conditions and relationships within each individual's circumstances. These guided second interviews allowed the interviewer access to interviewees' deepened understandings of their own lives, and the circumstances that had shaped them. Further, because the interviewer could quickly move to important concerns from the first interview, she had more time to discover and discuss new issues in the interviewees' lives. The advantage of this approach lies in its comparative abilities. Comparing snapshots of two different times in participants' lives, we could capture their personal analysis—as well as form our own judgment—of whether they were faring better, worse, or the same, and why. This approach to gathering longitudinal data yielded rich qualitative data and was an important first step in a winnowing process that enabled us, in combination with thematic coding, to extract the institutional factors that we discuss below.

In addition to analyzing patterns across the data set as a whole, we selected three cases to discuss in detail as exemplars of certain types of experiences and their different career outcomes. In particular, these exemplars focus on the impact of these systemic factors on individuals' decisions to remain at the university or to leave, and thus to faculty retention as a whole. These three cases are those of women, one from the natural sciences, one from social science, and the last from a field that incorporates elements of both natural and social sciences. The cases include one early-career faculty member (pre-tenure), one who was in the processing of receiving tenure at the time of the first interview, and one who received tenure between the first and second interview.

## III. Findings: Patterns across the 20 Cases

Our analysis revealed patterns that clustered around the four institutional factors that we called Work/Life Balance, Climate, Career Status, and Finances. In this section, we discuss in general terms how these four institutional factors influence faculty career success and satisfaction across our sample. We then globally characterize the career trajectory for each individual in the sample as improving, worsening, or about the same, across the period between the two interviews. Finally, we link these two analyses as we examine patterns in how the four factors play a role in the overall career trends of individuals.

In the following section, we turn to a detailed exploration of how these four factors manifest in the lives of individual faculty and influence decisions to stay or leave. That is, we adjust our analytical focus to "zoom in" to see the intersection of systemic factors and lived experience and how this intersection influences individual choices. The stories of these three faculty women exemplify how institutional problems can disrupt faculty lives and career success.

## A. Four Dominant Influences on Faculty Career Success and Satisfaction

In this section we discuss four systemic factors that we identified in our analysis as most influential on faculty career satisfaction. Observations in these four areas were both numerically and substantively significant across the data set, as shown in Table 1. That is, these factors were mentioned frequently, and they had significant impact on faculty lives. Collectively, they account for 48% of all coded observations in this data set. We describe these factors below, to which we have given the brief titles: Career Status, Climate, Work/Life Balance, and Finances.

	Tenure/Career Status	Climate	Work/Life Balance	Finances
Number of participants discussing one or more issues in this category (n=20)	19	18	18	5
Number of distinct observations made by participants	196	127	89	20
Proportion of all observations in data set (n=907)	21%	14%	10%	2%

### Table 1: Significant Institutional Factors in Faculty Career Success and Satisfaction

The category of "Career Status" refers to individuals' own characterization of their current status on their career path. It includes issues such as their sense of progress along the tenure and promotion path and prospects of being granted tenure or promotion, views of institutional tenure and promotion processes in light of experiences with them, and how people perceive their standing and career prospects in their own departments and fields.

For example, a number of untenured interviewees said that they felt that they had a good sense of what they needed to do to get tenure. In most cases this included establishing a "solid" record of publications, though what counted as "solid," as well as the types of publications, varied somewhat. One respondent felt confident that her primary task for tenure was to publish a book.

I've been told I need to have a book published. And at the very least... if it hasn't been published, I need to have a contract with a university press. It has to be peer-reviewed. So

ideally the book has been published and it's actually been reviewed and printed by the time I come up for tenure. You know, 'cause that gives them the strongest amount of material to support my case. And in addition to that one book I need to have either publications or evidence of progress on a second, unrelated project. So what I take that to mean is that, you know, if I have a couple of articles published, that's good. If I have a book manuscript ready for my second book, but it hasn't yet got through the peer review process or anything, that's also good. That actually doesn't have to be published, if it's a larger chunk of research.

Respondents also noted that they had received messages from their departments or colleagues specifying publication expectations in prestigious outlets for their fields. Most who noted such "quotas" were critical of them, like this respondent:

There's a general mentality here, which I don't know if the rest of the campus shares, but it's very much of a bean-counting [mentality].... You need to do this many things, you need to bring in this many dollars, you need to have this kind of evaluation... and to do that, and to do everything else, you're putting in ridiculous hours.... I don't think numbers are meaningful. I think what we're supposed to be doing here is becoming well-defined experts in our area. And worrying about whether I got enough journals or workshops, which is mostly what [scholars in my field] do every year, I don't think it leads to an optimal contribution. There're a lot of other things that we should be doing, and trying to wrap a quantitative wrapper around this, I just don't think works.

The Career Status factor may seem to be somewhat circularly defined, because changes in career status can result from a person's career satisfaction as well as affect it. In this category, we include a person's attitude about and sense of satisfaction with their career and its current direction—including aspects such as self-assessment of their career, optimism about it, clarity about what is needed to succeed, and confidence in their ability to do it.

When I met with the mentors and the chair, basically, they said, you know, the only thing that's kind of weak here is your publication record, but that's getting ready to really take off. So I think, you know, assuming that all the papers that are being written right now get accepted, then that should be fine.

Other comments in this category addressed individual feelings about the tenure process, whether stress and worry or feeling stimulated by the challenge.

I think that tenure thing, uh... it's interesting. It is stressful. It also motivates me, which I actually enjoy. I feel like the projects I'm working on are projects I'm excited about. [But sometimes] I feel like I'm not doing anything well. Sometimes I feel like I'm trying to do too [much], and I feel like there's this clock, you know, and it's like, you better get it all in before you finish, or whatever. And I think that that's where my stress comes in.

I tried to cover all my bases, you know.... I didn't want there to be any doubt in anyone's mind that I hadn't done *everything* possible to please them. And that's where I feel like tenure can be a really disempowering process. ...And if anyone suggests that you could've done one thing differently, you know, you wanna like jump [to it]. You don't know how much it counts, you know?

Current events at the university figured into a few observations. In the wake of a high-profile academic misconduct case, some interviewees had concerns about the future of tenure, while others realized its value.

I've been told by my colleagues that almost everybody gets reappointed and they said, "Don't worry about it. You'll get reappointed. Keep your eye on the prize." ...And I honestly think this Churchill situation has shown that tenure is a prize. I mean, it protects you from things, let's face it—if he did that in another kind of job, he may not have a job right now.... Tenure, that's one of the really beautiful things, you know, you are protected and you are able to speak your mind and speak your voice and be protected. So to me that's the prize, at this point. That reappointment, it's a hurdle and we'll get through it. I'll go through. I'm not worried. I mean, maybe I should be, but frankly it's not worth it, I guess, is what I'm saying. What's really worth it is tenure.

While these perceptions about tenure and promotion deserve further content analysis to understand what they have to say in detail about faculty's perceptions of their careers, here we use them as evidence of the importance of these issues in faculty's lives and to characterize individual faculty members' situations.

The category we label "Climate" refers to the role of the specific departmental and institutional environments in which individuals work. We included both department and university climate in this category, distinguishing between them when participants do, but we found that participants often talk about both and move between them without making clear distinctions. This category incorporates statements about good and bad climates, and many situations in between, and about the factors that generate positive or negative climates, for example:

I'm keeping my eyes open for an institution that is less competitive, maybe more friendly—friendly is maybe not the right word, but—one of my colleagues likened the department I'm into a shark tank. And what is it?—the saying I just heard is that, if you're going to swim with sharks, expect to be eaten. And, and frankly *(laughs)* some of 'em are that way.

Another interviewee gives a much different picture of her department.

I really like my department quite a bit actually, because they're very supportive. There's very good communication. I feel like if I have something that I need to discuss, I can discuss it.

In this category, interviewees discussed elements that they thought influenced departmental climate, such as the quality and degree of communication, civility, collegiality, conflict and its resolution, the tone set by chairs, and the role of particularly difficult colleagues.

The amount of like, quarreling, squabbling, bitching, moaning, complaining, fighting, that goes on in my department is really minimal, really very minimal, and so I value that.

Other comments addressed common sources of conflict.

We often have been at odds when it comes to things like how do we prioritize new hiring, which is something you discuss when you put together a PRP document. This time<sup>3</sup> there

<sup>&</sup>lt;sup>3</sup>The speaker had earlier referred to a LEAP-sponsored communication workshop in her department, which she felt had contributed to this more positive outcome.

was no heated discussion. There was actual buy-in, which was, um... it was amazing! It was amazing.

That first year it was really awful to have some senior colleague come into my office and ask me how I felt about the different candidates, without giving me any indication of how the rest of the department was going or where he stood. And it was always a "he," there's only one senior woman in our department. But ...in my first year, I just didn't know how to deal with the situation. And the thing is, everyone wants you to take a stand. Everyone wants to know what you think. And being wishy-washy and saying, 'Well, I don't know who I like'—that's not okay. (laughs) But you don't know what the stakes are, in that first year. ...I still think it's really awful that we hash all these disagreements in private instead of dealing with them as a group, because of the kind of pressure it puts on, especially the junior faculty.

Some comments addressed particular climate issues and how they affected women and minority faculty, at both the individual and institutional levels, as in these examples.

I mean, these people don't even know, half of 'em couldn't pronounce my name for the first little while.... I mean, they couldn't even take the time to learn my name, let alone... actually learn something about me, you know. But I don't think I'm a lone ranger—I think... they're probably that way with everybody. ...I think what I'm finding is it's just not a very friendly place. It's not what I'm used to. It is more of a cutthroat, competitive place.

F: [In hiring women faculty], there's a plateau, right? ...And it seems to me that, not just in our department's case, but around the university, we're not willing to confront that. And it reflects kind of an attitude towards equal opportunity that's very numbers-based. That's a great advance, right? (laughs) It is. It is truly a great advance. But in my department, I see we are at the point where we've said, 'We've got enough women.' We have never hired a woman when we have also interviewed a man.

I: Really?

F: Unless the woman has tenure someplace and the men are straight out of grad school. So what it means is that, when we look at numbers we're okay. At the interview stage is when the sexist bullshit comes in. But because we have hired women... we no longer seem to think we need to be concerned with that. And... that's not something I'm very satisfied with.

While reports of department and campus climate varied widely, most respondents could readily identify work environment factors that, if improved, could lead to significant gains in community and intellectual community on both levels. Thus this factor readily emerged as important in faculty satisfaction.

The factor we call "Work/Life Balance" refers to balance between work and life outside work. We use the term 'balance' to indicate a person's satisfaction with the quality and proportion of time spent on work vs. that spent on personal and family pursuits—proportions which are not necessarily equal and which are certainly not the same for everyone.<sup>4</sup> Almost every interviewee

<sup>&</sup>lt;sup>4</sup> As physicists know, unequal masses can be balanced by placing them at different distances from a fulcrum. We recognize balance as a multi-dimensional state that requires constant, dynamic adjustment, and imagine an athlete on a surfboard or snowboard, not the static symmetry of the scales of justice.

reported that they struggle to "get it all done" at work and still have time left for family and personal pursuits. Tenure-track faculty reported feeling overwhelmed with the amount of work to do, and never feeling caught up. This feeling of "overwhelmedness" is driven by participants' perceptions of tenure expectations, as the following interviewee discusses.

I think it's *very* difficult to complete everything that's expected of us in the time that is given in a day, or a week, or a year.... I mean, I know some really, really, really bright people who are very gifted, and they're here on weekends. And they're here on weekends not because they're passionate about their work—I think everyone's passionate about what they do, or they wouldn't be an academic—they're doing it because they feel like they need to or they won't be successful. I think there's something unhealthy about the process. And I think that's one of the reasons that you see tenured faculty become nonproductive. They're either burned out, pissed off, or feel entitled. It's like, "I don't need to do this, I have tenure."

Others discussed a desire to participate more broadly on campus, outside of their department, but there never seemed to be enough time to do so. One tenured professor spoke to this sentiment.

Would I be interested in having a service role across campus that was rewarded by having it be an official position? Yes, I would be very interested in something like that. Maybe not administrative kinds of things, but maybe chair of a committee that's important. Do I pursue those opportunities now? No. Why? There's no time, and the balance between the teaching load, and what I feel like in my mid-career, what I need to do to get full professor, there's no opportunity for those things. I mean, there's not.

In addition to comments about workload, this category of analysis includes comments about balancing family responsibilities in families with children and/or with two working parents; the benefits and risks of starting a family, particularly prior to tenure; and personal needs for recreation, exercise, relaxation, and social activities. Many faculty discussed their strategies for trying to maintain balance.

That's a very important thing to me, spending time with my family, my daughter. So, what I've done is, I've figured out ways of stealing hours from other time periods—like not working out, like not sleeping as much. So I get up very early and do work, and after she goes down, that's when I start doing work again. ...I was hoping that my overall hours would've decreased, but they haven't. I expected over the first few years to have... really ridiculous hours and it would get better, and, you know, it hasn't.... But I'm willing to do this, one, because I want to commit to being successful here; and the other, I'm willing to adjust my hours as I do... 'cause it's more important to me to spend time with my family, than not.

Others noted that family responsibilities fall disproportionately on women faculty and on young faculty, and that graduate students observe faculty choices about balance and respond to them.

Ironically, [after tenure], that's when it often is not as much of an issue any more (chuckles) because, you know, those early years are when the kids are young and people are starting families and that's when they need to have the incredible work output... that's imposed upon them. So it's kinda, it should almost be reversed, you know?

When I was in graduate school at Harvard, there were women who had children, but there were very few of them and you never saw them bringing their kids into the department.

You just did not do that, right? Like, they had this sense that 'I have to hide the family,' whereas here there's the sense that, you know, 'I'm gonna take my classes much more slowly. You know, it's gonna take me a long time to get my Ph.D. and that's okay.' And, you know, I think it's great [that] the graduate students in our program feel that way, but they're certainly not getting it from us, you know, 'cause the faculty do not model that at all.

In sum, many speakers addressed ways in which work/life balance affected the quality and quantity of their faculty work. This speaker's reflection summed up the views of many about why work/life balance directly affects faculty success and effectiveness in their profession.

While we don't want an 'anything goes,' slacker environment, to reach the point where people are under such pressure that they can't maintain a positive productive life outside of the job, what's the point, you know? I mean, I know that's true in private sector, too, but I would think that in academia we'd be able to be a little bit more reflective about that and make some adjustments, 'cause the bottom line here is education—and if a faculty member doesn't have a... sense of who they are, and sort of a, a core wellness... approach to life, I don't think they're gonna be effective with students in the long run, let alone contributing to the profession very long.

Finally, "Finances" are a factor for a small but important minority of faculty, typically recently hired, single women in the social sciences and humanities. This factor emerged from the data it was not one we anticipated in advance—but we began to ask about it when it came up in some interviews. Issues in this category include, for example, low salaries that limit the ability to purchase a house in Boulder, thus forcing longer commutes from outlying towns; making ends meet by teaching summer and overload courses that interfere with research productivity; graduate school debt; and child care costs. The following interviewee illustrated her financial difficulties in quantitative detail.

I bring home 2900 bucks a month. For my... 1100 square foot townhome, which is 45 minutes away from the university, I spend \$1100 a month. My daycare is \$750 a month. My son's insurance will be about another \$175 month on top of what I'm paying now. And we're not talking about food, clothes, anything else, here. If we merely add up the cost of my housing plus the cost of daycare and insurance for my son... that is two-thirds of my take home pay. That leaves me 900 bucks a month, well, \$875 for groceries, clothes, a babysitter, entertainment, my car, car insurance, homeowner's insurance... and the 35 bucks a month I have to pay to park here, which I had to pay because I can't live near the university.

Because women are overrepresented among faculty struggling financially, this group may be especially relevant to campus diversity concerns, and thus their financial concerns—though limited to a smaller group than the other factors—should not be dismissed.

These four factors are not always cleanly separable; clearly they interact. For example, Climate interacts with Balance when faculty describe a department environment that is supportive or unsupportive of personal time and family obligations, such as norms about "face time" in the office, perceptions about whether it's acceptable to bring a child to the office during a school vacation, and observations about how department meetings are scheduled to accommodate or conflict with daycare and school pickup times. Balance interacts with Career Status when the demands of achieving tenure are seen to require a sacrifice of personal and family time, and

when choices in either direction cause stress over one's chances of professional success or guilt about family time. Finance interacts with Career Status when the need for money causes faculty to make choices that earn income but are not necessarily the best for their career advancement. In our ethnographic portrayals of individual case exemplars, these interactions are quite evident.

## B. The Role of Systemic Factors in Faculty Career Trajectories

Having established that these systemic factors are prominent in faculty discourse about their career success and satisfaction, we now examine the nature of their impact. Through the process of distilling faculty narratives to their essential elements, as described in the Methods section, we characterized each interviewee's trajectory from the time of the first interview to that of the second interview. Because the interviewer had specifically inquired in the second interview about concerns the speaker raised in the first interview, we were able to characterize most of the factors for each person as improving, worsening, or about the same, as well as to characterize the overall trend of their career trajectory as rising or falling. Table 2 shows these characterizations for all interviewes.

Case ID	Gender & rank	Tenure/Career Status	Climate	Balance	Finances	Overall
45	F, u	+	≈+	-	n/a	+
46	F, u	+	+	+	n/a	+
48	F, u	+	n/a	≈ -	-	+
16	F, u	-	+	≈ -	n/a	+
18	F, u	+	OK	-	-	+
47	F, rT	+	↑	+	n/a	+
38	F, T	+	+	-	n/a	+
39	F, T	+	+	↑	n/a	≈+
14	M, u	+	+	-	n/a	+
42	M, rT	+	≈ -	≈ -	n/a	+
37	F, u	-	-	-	n/a	≈ -
43	F, u	-	-	-	-	-
44	F, u	-	-	-	-	-
17	F, u	-	↑	n/a	n/a	-
07	F, T	+	-	n/a	n/a	-
32	F, T	n/a	-	-	n/a	-
06	F, T	+	n/a	_	n/a	unclear
05	F, T	unclear	-	n/a	n/a	unclear
40	F, T	-	-	n/a	n/a	unclear
15	M, u	ſ	↑	-	n/a	unclear

Table 2: Role of Institutional Factors in Faculty Career Trajectories, by Individual Case

**Notes**: The cases are *not* listed in order of case ID number. Rather, bold lines divide cases into three groups: first, those in which the overall trajectory showed an improving trend (or continued on a positive trend); second, those with a worsening trend (or continued negative trend); and last, those where the overall trend was unclear. Within each group, women are listed before men, and untenured before tenured faculty.

### Key to Table 2:

Faculty status	Characterization of individual factors and overall trajectory			
u = untenured at time of	+ = overall positive	$\uparrow$ = improved from 1 <sup>st</sup> to 2 <sup>nd</sup>		
both interviews	- = overall negative	interview		
T = tenured, both interviews	OK = acceptable	$\Downarrow$ = worsened " "		
rT = received tenure	n/a = not applicable or no	$\approx$ + = positive, little change " "		
between 1 <sup>st</sup> and 2 <sup>nd</sup>	clear evidence	$\approx$ - = negative, little change " "		
interview				

To show how Table 2 reflects faculty career situations, we examine a few examples. For case 48 (an untenured woman), her career is going well—her research is succeeding, she has been productive in publishing, and feels comfortable with her teaching. She is unusual in having little comment about the climate in her department, though other interviewees from her department have characterized it as a less than harmonious environment. She is dissatisfied with her work/life balance, primarily because she has a long-distance spouse and thus does not spend much time with him. Their coping strategies-maintaining two households and traveling to see each other over long weekends-have a negative financial impact on their family as well, and she is sometimes frustrated by her department's scheduling of meetings on Friday afternoons when she could otherwise leave town earlier. Case 18, another untenured woman, is not thrilled with her department's climate, and is struggling with balance issues and with finances, both due to becoming a single parent between the first and second interview. However, she still describes her overall situation as positive, explaining that parenting has led her to develop a new perspective about the importance of her career relative to her family life. Her career continues to go well, but she also acknowledges that it now takes a lower priority in her life overall, and has adjusted her professional goals somewhat in light of this change in her circumstances and perspective. Case 42 is a highly driven male. While he has some ongoing concerns about the environment in his department, and is struggling with managing family life with a professional spouse and their school-age children, his overall satisfaction is guite positive, largely due to the positive tenure review that occurred during the period of our study.

In examining Table 2, several patterns become evident. First, it is clear that Career Status is a dominating factor—when this factor is positive, most often so is the overall situation. This is consistent with its status as the most-often mentioned of these factors (see Table 1)—it is clearly important to faculty. It is also tightly linked to career satisfaction: If one's career is not going well, one is unlikely to feel satisfied with it. However, Career Status alone is not determining of overall satisfaction, for instance as seen by two cases in the third group (06 and 15) whose career status is positive but do not take an overall positive view.

Another pattern that is evident in Table 2 is the largely negative impact of Balance. Most faculty are unsatisfied with the quality of work/life balance in their lives. It is perhaps significant that tenured faculty are no more satisfied with their work/life balance than are untenured faculty: receiving tenure does not, apparently, relieve workload or alter priorities sufficiently to improve faculty members' sense of the balance between work and personal life. Nor are men reporting more success in achieving satisfactory work/life balance than women. Climate shows a mixed picture: both negative and positive situations are present, representing a range of situations and departments across the university. As we have noted, Finances are not a factor for most faculty, but are a negative factor when they are mentioned.<sup>5</sup>

Another pattern concerns how the factors reinforce one another. This is most evident among the second group of faculty, whose overall negative trajectory results from a pile-up of negative factors. For example, case 44, an untenured woman, is similar in many ways to 18—both are single parents facing financial difficulties and the dual challenges of a demanding job and family responsibilities. Yet for 44, these challenges are undermining her confidence and threatening her

<sup>&</sup>lt;sup>5</sup> We acknowledge it would be unusual to hear faculty members say they are completely happy about how much money they make—but our analysis does allow for the possibility of *improved* financial status in this time period.

research focus. It is evident that she needs to complete some publications in order to build a strong tenure case. Her case makes clear how the four institutional factors are interlinked: Though eligible for parental leave, she could not afford to live on the reduced salary that this provides, and did not take it—so she was back in the classroom only eight days after giving birth. Her department chair was not unsupportive, but was not well-informed in providing other options. In making decisions about how to manage her work and parenting—"writing during naps didn't work"—she has backed off some of her departmental service responsibilities. But she reported that this engendered some resentment from other colleagues who seemed to feel she was getting special treatment in a small department where service and teaching loads are high. In choosing to forego teaching summer school so that she can write and maintain her child in part-time rather than full-time daycare, she loses an income source that has been important. Thus, even in making responsible decisions to address one area of concern, she meets with negative consequences in other areas.

Another pattern that is evident in Table 2 is the relative dissatisfaction of tenured faculty women. Of seven tenured women, only two are in the first group, whose overall situation is positive. What is even more striking is the correlation of tenured women's satisfaction with the Climate factor: Six of the seven have the same characterization for the Balance factor as overall, and for the seventh (06) this factor was not significant. In fact, 06 feels underappreciated and overworked in her department, though she reports it to be very collegial—thus she assigns her frustrations to her lack of work/life balance and unclear sense of career trajectory. As an associate professor who feels stuck in a rut and looking for professional renewal, Climate is an issue of importance to her, but was not a negative for her at the time of the interview.

The importance of Climate to these senior women showed up in multiple ways. For instance, professor 32 began by discussing temporary issues that were hard on morale, but moved on to describe more pervasive, long-term issues.

I'll tell you, I'm kinda sour on this place right now. I think it's been a very hard year for everybody. And I think in large part, well there're two things that have come into that, and that's, number one, the football scandal. There's no question, I think, that that's put a damper on people's enthusiasm for coming to work, it certainly has on mine. And I think the other part of it is the budgetary crunch. And the fact that salaries continue to lag behind peer institutions. All of that makes this a rather miserable place to come and work sometimes, I think now. And to just have... a more open, friendly, attractive... atmosphere to come to work in every day, would certainly go a long ways for me for overcoming some of those other things.

(continues) We have colloquium Wednesdays at 4:00. Well, for many of us with children, that time is very, very difficult. And we certainly are made to feel if we miss one, because we've gone to take care of some child thing, that, that we're a lesser faculty. I mean, I was in a faculty meeting, I swear, last year where somebody said... "The faculty day goes nine to five." And I thought, "Oh, it does, huh? It goes nine to five? Well, sometimes I'm in here at five in the morning, so that I can go ahead and take care of something else at the end of the day." One of the reasons I'm a faculty is so I don't have to punch the clock nine to five. But many faculty, I think, especially some of the older... men, have that kind of attitude, and that's an unpleasant kind of attitude to have to deal with. So, so many of us just find that a constant aggravation, this, you know, being made to feel that... we're lesser because we're taking care of some other things. So when you

talk about an attitude on campus, you know, it's the single-minded model of what a faculty is here to do. To work 60 hours a week, to publish X number of papers a year, to focus 60% on the research despite the fact it's 40% of your job description. You know, and that there's gonna be no leeway in that. I'm just sick of that kind of attitude and I'd like to really see it change.

Although she is prominent in her research field, a full professor, and respected among colleagues, the climate issues were significant enough for this woman that she was considering an early retirement: "I'm at the point right now where I'm sick to death of it, enough that I'm really considering retiring in the next couple of years." Her senior colleague in another field, 07, had similar reservations: She too described the consequences of tight budgets for faculty morale, observing that in times of constraint, people are more cynical, less collaborative, "less willing to reach out and work together, …thinking in terms of 'right now' because who knows what the long term is?" She felt frustrated by a lack of intellectual community, and as a result was, like 32, considering moving on from the university:

What I would look for is some university that has what I perceive to be more of a commitment to serious scholarship... in areas that I am a part of, but also has more of a commitment to... people as scholars, than there is here. And, you know, I'm tired of... the subtle sexism of this place. ...I used to think, and I still hope, that things will change here. But I think that, you know, it's harder to have that hope right now.

These interviews, and the others with senior women (in both the first and longitudinal interview rounds), are interesting in light of the possible explanation they offer for the high rate of attrition of senior women (age 50-59) from the CU faculty ranks, nearly three times that of men in the same age group. While further data would be needed to substantiate this linkage, our interview data suggest that Climate is a factor that is particularly important to women, as others have observed (Bilimoria et al., 2006; Callister, 2006), and one that grows in importance, not shrinks, through a career. We suggest that, having established their professional careers, senior women faculty are no longer as anxious as newer faculty about advancement, but grow tired of unrewarding working conditions, uncooperative colleagues, and "subtle sexism" in everyday interactions. Feeling worn down from these constant irritations, they are more likely than men to retire early or seek a different position.

## C. Has LEAP Made a Difference? Evidence for Longer-Term Individual & Institutional Impact

As discussed in the introduction, we conducted longitudinal interviews with faculty participants in LEAP programs in order to try to discern "institutional transformation" through its impact on individual lives and careers of faculty. We have already discussed (Laursen et al., 2005) the impact of particular LEAP programs; here we are looking for evidence of more global changes that impact faculty positively and that can be ascribed to LEAP. Table 3 summarizes Table 2 by career trend and notes the number of individuals attributed positive or negative changes in their career situation and satisfaction.

One simple measure of LEAP's success might be to examine the career success of the participants. Table 3 shows that more participants had positive career trajectories (10) than negative (6), though the difference is not large when the "unclear" trajectories (4) are included. The difference is more striking if tenured faculty are removed and only pre-tenure faculty (including those who received tenure during the study, 2-3 years after participating in a LEAP program) are included. Among this group, 8 had positive trajectories, 4 negative, and 1 unclear.

These data could be used as circumstantial evidence that LEAP is benefiting the success of a target group of highest priority, untenured women faculty. However, we do not have a comparison group to show that this success rate is higher than a non-participating group, nor can we exclude the possibility that well-prepared, ambitious faculty select into the LEAP workshops.

Career trend, 1 <sup>st</sup> to 2 <sup>nd</sup> interview	Number of Faculty (women, men)	LEAP had a positive impact on career trend	LEAP had negative impact on career trend	LEAP had no impact on career trend	No attribution of career trend
Improving or positive	10 (8 F, 2 M)	2	0	6	2
Worsening or negative	6 (6 F)	1	0	1	4
Unclear	4 (3 F, 1 M)	0	1	0	3

Table 3: Summary Characterization of Career Trajectories for Faculty in Longitudinal Interview Sample (n=20)

Table 3 also shows that only a few participants directly and explicitly attributed changes in their overall career situation to their involvement with LEAP. Two attributed positive changes to their participation in LEAP. One, an untenured woman who had received criticism from senior department members for her choice to start a family as she was coming up for tenure, spoke of how other workshop participants had helped her gain "courage... to just decide to have a family, even if the tenure committee thought it was a bad idea. It's made me a little bit defiant in, I think, a good way." She had also taken decisive action in her department to improve the equity of family leave opportunities. She drew a logical connection from her own experience to the consequences for the institution if others felt similarly empowered: "If other people are responding the way I have... in making them a little more self-reliant, a little more... for lack of a better word, defiant about what sorts of things I need to be successful—if we're creating a culture of junior faculty who are like that, sooner or later we're all going to be the administrators" (laughs). This was a theory of change shared by other LEAP participants—that leadership skills and interests developed through LEAP's programs would manifest later on as these individuals took on leadership roles throughout the institution.

Another person who attributed her positive career direction to her LEAP participation was an associate professor who had made a significant career advance during the interval between our first and second interview with her. She said of her participation in a leadership workshop:

That was a real change for me in a lot of ways—it brought up a lot of topics I had not really embraced before about leadership, about my role in the university. And so I think that since then I have really kept in mind some of the lessons and some of the topics that we talked about.... And I tried to work on areas where I felt I needed a little bit more skills. I think the main thing that it did is that it opened my mind to say, 'Yes, these are issues that I *do* need to master, and I do need to work with.'

This case is noteworthy because many of the issues she raised in her first interview were similar to those discussed as problems by other associate professors. While we do not have large

numbers of people in this group to examine, it is encouraging to see positive outcomes from the workshop that match well with the needs identified by faculty in this career stage (see Laursen & Rocque, 2006) and with positive reports from the LEAP workshops recently targeted to this group. The outcomes of her participation in an early workshop—reported to us over three years later—may indicate potential benefit to other mid-career participants later on. Also of note, she, like many participants, was willing to contribute to LEAP's goals and agenda, if asked:

I feel like the program really has done a lot for me and hope that there are other people who'll feel the same way who would be willing to say, 'Okay, tell us where to go from here, or just get us together and let us figure out where we think we should go from here.'

A third interviewee, whose trajectory was on a negative trend, was nonetheless positive about the role of LEAP. "LEAP was really helpful in helping me clarify just how unhappy I was in this job," she reported, describing discussions on clarifying one's career goals and making informed career decisions that occurred during the leadership workshop she attended. Finally, one interviewee attributed some negative aspects of her career situation to her participation in LEAP. She did not blame the program for this, but clarified that it had been a personal choice to participate in a substantial way. However, some difficult issues arose that had unanticipated consequences for her stress level and health.

Overall, there is not strong evidence that participating in LEAP programs had a career-changing impact for individuals. However, attribution of career success to participation in a short workshop is a rather high bar for measuring impact; such attributions were by no means the only mention of LEAP. A total of 34 observations by 13 faculty named specific benefits of LEAP programs that they still valued at the time of the second interview. These echoed the benefits mentioned in the first set of interviews: specific tools or strategies that they continued to use, such as negotiation strategies, prioritizing scholarly work in their time management, friendships and other personal and professional connections (Laursen et al., 2005). Other speakers described feeling more confident, empowered to take on difficult situations or stick up for themselves, and the benefits of reflecting on their own goals and career progress.

Participants also had suggestions for program improvements or additions. The most common suggestion in second-round interviews was to offer additional opportunities for LEAP program cohorts (single or mixed-cohort workshop groups) to reconvene for a "refresher course," to share and hear about one another's progress, and continue discussing topics participants felt were important, such as those raised at the workshops. These suggestions reinforce findings from the earlier report (Laursen et al., 2005) on the importance of the new personal connections made in the workshops, indicating that these connections are still the most significant lasting impact for faculty and that they help to fill faculty's expressed need for greater intellectual and social community on campus (Laursen & Rocque, 2006). Training for department chairs was the second most common suggestion, again in line with expressed needs for faculty development at the chair and department level (Laursen & Rocque, 2006).

Another way to consider the longer-term impact of LEAP is to examine the impact of institutional factors that LEAP hopes to influence, but that participants may not attribute to LEAP. Some participants hypothesized, for instance, that LEAP's efforts to improve communication skills would add up to a positive impact on the institution as a whole when a critical mass of people with these skills had been trained, and when colleagues and chairs become more supportive. We would thus expect LEAP's efforts to have the greatest impact on

the Climate factor (where participants report communication issues as important). In Table 2, positive or improving climates do outweigh poor climates, but not so substantially that we can draw general conclusions about whether this is true campus-wide and what explains it. A snapshot of campus climate a few years from now might reveal more lasting change. A repeat of the LEAP climate survey (Nielsen et al., 2005) may also be informative, though other campuses have found it difficult to understand or attribute climate changes on this time scale (Stewart & Malley, 2007). Planned interviews by LEAP's external evaluator with high-level campus executives may also be revealing. On the whole, we conclude that it is still too soon to observe impacts of this type, at least as seen through faculty eyes at the grassroots level.

In sum, 15% of the longitudinal interview sample attributed positive aspects of their own career trajectories to prior participation in LEAP, and 65% of interviewees mentioned other lasting benefits of LEAP that were helpful to them. Five percent (one interviewee) mentioned a negative impact but described special circumstances under which that arose. The interview data do not reveal broader institutional changes that can be detected at this time or that can unambiguously attributed to LEAP's impact. The time frame is still short to observe such impact at the faculty level.

# IV. Findings: The Influence of Systemic Factors on Individual Careers and Institutional Faculty Retention—Three Case Exemplars

In this section, we meet three women faculty who exemplify the ways in which career trajectories may be threatened and impeded by external factors, such as structural barriers and cultural and political conflicts within academic units. Janie is a mid-career associate professor in the natural sciences; Nadine is a newer assistant professor in the social sciences; and Meg, a recently promoted associate professor in the social sciences. These three women, despite their vastly different experiences, each struggled with institutional factors that—for various reasons and to different degrees—made them rethink what they are doing and why. Thus, each woman is at risk for leaving the institution, though for different reasons. Such individual decisions lie behind the broad generalizations of institutional retention statistics.

In our study we have identified examples of faculty, both men and women, for whom the university is a good fit, whose careers are going well, and who feel fulfilled. One professor spoke of a commitment to staying at CU—despite its flaws—to help make the university the kind of place he and others would want to spend their careers. Clearly this is evidence that things are not all bad for faculty, nor are they bad for all faculty—some have positive and satisfying careers. But for others the overall picture is not as rosy. Many struggle with structural, political, and cultural aspects of the university that impede their academic productivity. The stories in this section illustrate well the ways in which institutional factors manifest in individual lives. Specifically, they point up the constraints and pressures on individuals from their social context, and how these can interfere with the substance and productivity of academic pursuits. They highlight concerns that can weigh heavily on faculty job satisfaction and reveal problems that, if addressed by the university, might improve the well-being of its faculty and the success of its institutional mission.

In the following discussion, we examine the factors that are pushing three very different women faculty to consider leaving CU. We have chosen one case each from each of the three satisfaction groups in Table 3, to illustrate that an individual may leave the institution whether their job satisfaction is generally positive, negative, or mixed—that is, the institutional retention

issues cannot be predicted from simple characterizations. In some cases, academic success is affected by seemingly external factors; in others, academic success is insufficient to outweigh other factors in the individual's job satisfaction and intention to remain at the university. Together, these stories demonstrate how women's sense of self in academe—whether they feel they are thriving and supported in their life and work, or struggling and drowning, depends on the factors we outline in this paper: work/life balance, climate, tenure and career status, and in some cases, finances.

## A. Success without Satisfaction: The Case of Janie

Janie is a mid-career professor in a life sciences department. When we first spoke with her, her tenure decision was not official but was soon to be announced; at our second interview, she was tenured and had had some time to process what this meant for her career. While she recognizes that having tenure might open certain opportunities for her, she is not sure that she wants to stay "on track" to become a full professor, because she views promotion as entailing responsibilities that she is less interested in than her current work. Janie is ambivalent about her department and whether she will stay there for the remainder of her career. She has increasingly come to see her goals and those of her department as conflicting with one another.

### 1. Career Status

A major issue pushing Janie away from the university is what she perceives to be limited opportunities to grow in the directions she would like. Now that she has gotten over the hurdle of tenure, Janie wonders what is next for her. She feels ready for leadership and would like the ability to explore new options, such as developing and administering an integrated research or teaching program that mentors students, but she does not see this as an option, because she believes the institution is too concerned with the status quo. In her eyes, it is a typical research university, concerned only with faculty getting big grants and cranking out publications. But Janie believes that her only opportunity to exhibit leadership here is through a traditional administrative position with an emphasis on budgets, hiring, and other issues that do not interest her. Thus she feels that her only viable option at the university is to continue doing what she has been doing, focusing on her research and teaching. It is secure and familiar; she knows "what it is." But she is hesitant about this possibility too, because she doesn't want to foreclose her ability to grow in new directions. She believes that faculty "paint themselves into a corner" by continuing to do familiar kinds of work, thereby preventing the possibility of branching out and doing other, potentially more innovative, work. Yet she finds it risky to talk with other faculty about changing the emphasis of her own work, because "you fear being judged."

Janie thinks that she might be able to realize her career vision at a smaller, teaching-oriented school, but to her that is like "jumping off a cliff, because I could never come back.... What if I try it and I don't like it?" She has "gotten frustrated with the large university setting" and the kind of education offered by research universities; she is tired of teaching large classes but does get a lot of satisfaction from teaching small classes. This is another sign, to her, that perhaps a small college or university would be a better fit. And while she has no desire to be chair of a department at CU, she does have a greater interest in such a position at a smaller college, where she could have "more involvement in actually building the program." When asked if she would move to find a teaching position at a teaching college, she responds,

That's one thing that's just hell at a place like this, is that I just feel like... teaching isn't emphasized as much as at a small college, but you still have to do a good job teaching

and you have to a great job doing research, and then there's a lot of other stuff and it's hard to do it all well. You know, I kinda feel like maybe I could handle one, you know, one or the other, research or teaching. I'm not sure I can keep going with both. It's just, it's very hard.

In addition to seeing these tensions in her own department, she recognizes similar issues in the issues raised by her coaching partner. Departments can be rigid, she feels, and not recognize the different kinds of contributions that people make. She feels that her department does not value her, or understand the kind of work she does. Likewise she sees arbitrariness in the tenure expectations faced by her coaching partner, Cindy, who has been told to publish in a journal that "all of them" publish in, although Cindy is writing books, and although this journal is not a typical outlet for papers from Cindy's specialty area. Despite thinking that this requirement is "insane," Janie says, she has advised Cindy, "If that's what they are telling you to do, do it. Just do it." But she recognizes the dilemma here: if tenure standards are partially responsible for the kinds of problems that faculty struggle with, then how does capitulating to them work to challenge and change them? Janie is concerned about the possibilities for making change when departments can be rigid and arbitrary, too constrained and bounded by disciplinarity. This is disconcerting to her, as she explains: "This is a little bit frustrating to me because I tend to think of universities as being open and, you know, sort of forward-thinking and [full of] new ideas, and it's like, 'Oh!' You run into some real rigidity." Being a coach, and watching her coachee struggle with rigid rules, have helped her understand her own career and her current situation better, and has led her to wonder about her future. She says,

Your question was more about, does it help me understand? It kinda does. It helps me understand more about what, what's happening here in [her department], that I see some of that rigidity and that is actually a frustration to me. You know, it's something that makes me question whether this is really, you know, do I wanna keep being in this unit?

### 2. Climate

At the time of the interview, Janie's department has been reorganizing itself according to what she feels is a "narrow" conception of their discipline. This has led to a tense climate, as turf battles rage about what kind of research faculty in the department should be doing. Janie notes a difference between her home department and another with which she often interacts. Her home department does not subscribe to a "big tent" model that recognizes many types of contributions, and where there is room for diverse research methods and topics. To Janie, the tone in her department is more exclusive, such that if you don't fit the vision, you shouldn't be there. No sense of community unites faculty across subdisciplines, where people doing disparate research can still find another a valuable member of the department. Faculty are consumed with their individual projects and careers, she feels, and too rigidly adherent to their own vision of the discipline. Thus Janie doesn't fit in well, because her colleagues do not understand or appreciate her interdisciplinary work, and she questions whether or not she can continue to tolerate the narrow thinking in her department. The comparison department, she notes, represents a wider range of types of scholarship, and thus people must be tolerant of one another: "We'd fall apart if we didn't do that." In Janie's experience, rigid disciplinarity makes people more competitive and less tolerant of differences.

Moreover, she does not feel a sense of community or support at the university level either. The administration does not do enough to make faculty feel valued or part of a larger effort. Despite

claims that retention and recruitment are top priorities for administration, Janie has not seen concrete examples of support for faculty. In her view, the recent football scandal, and what she perceives as poor leadership in the response of among top administrators, have seriously damaged faculty morale and led to a kind of apathy among faculty.

Janie: I've mentioned it several times, but the thing that's kinda been bugging me lately, is just this sense of... (pause)... like I wanna be a part of something where I feel like we're kind of in it together. And, and maybe it's been a function of all the strife over the past year, and... what I've sensed as kind of a... not a real strong display of leadership at the top. Like I mean Betsy Hoffman said, "Oh, faculty recruitment and retention are my highest priorities," you know, it's like (sigh)—you know, I don't believe that. (laughs) You know, I mean you've gotta give us more than a 0.1% raise then, you know, and you've gotta make it happen somehow. And... I'm being too hard on her, I like her. But, you know, I think it's just been a hard time... for everybody probably. It just feels like a kind of a rift and there's a lot of discontent, and people aren't as eager to work hard and really pull for old CU.

Interviewer: Yeah, that's the big effect, isn't it? Morale.

Janie: It's, yeah, it's really morale. You know, I went to NSF to be on a panel and somebody said, "Oh, what's going on with your football team?" And it's like I don't wanna talk about that, you know. I'm at NSF, you know, (laughing)—you know, AAAHH! But that's what happens. It's on NPR, you know; you get branded. And it takes... a long time.

Overall, Janie is not feeling highly positive about her career prospects at CU. Though she has been outwardly successful in her field, with her research well funded and recognized by prestigious awards, she is not satisfied with the quality of intellectual and community interactions in her department and does not feel her work is internally valued. Thus, despite her apparent success, she is thinking of leaving for a place where she is appreciated and can play a role that is more meaningful to her.

# B. Overwhelmed and Undersupported: The Case of Nadine

Nadine is an assistant professor in the social sciences. She was heavily recruited, as global events made her field a hot topic as she was finishing her dissertation. She came to CU immediately after finishing her doctoral work though, in her words, heavily courted by other schools. We spoke with her early in her time at CU, when she expressed some concerns about the fit between herself and the university, and then again in her fourth year, when she had made a decision to leave.

# 1. Climate

Only after Nadine arrived at CU did she discover that her new department was fractured by a nasty, long-standing rift. As a new, untenured faculty member she was vulnerable, feeling pressured to take a side. Assigned to a faculty hiring search committee in her first year in the department, and pressured by both factions to vote for its candidate they wanted, Nadine was exposed to bitter infighting, and realized that her colleagues were "not nice people." Though this longstanding department turf war pre-dated her arrival, Nadine feels caught in the strife: by putting her on the search committee, the department effectively put her in the middle of the battlefield. Had she avoided this, she feels, things might have turned out differently for her.

Nadine has internalized a lot of the negativity she experienced in these meetings, and, combined with other factors, it hampered her ability to be a productive scholar.

At the time of the first interview, Nadine was already thinking about leaving CU, and in our second interview she confirmed her decision to leave before standing for reappointment.

I didn't want people judging my record. It's like, you made my life so miserable that I couldn't function, and now you're gonna tell me, you know, 'Your record isn't quite where it should be.' I didn't wanna go through it. And it was very liberating.

Difficult colleagues were not the only source of poor climate for Nadine—students also contributed to the problem. Nadine believes students at CU receive consistent negative messages about the university from the state legislature. "When the legislature is repeatedly telling students, 'We don't value this university, it's not important,' you know, the students are taking that home and saying, 'Well, I don't have to value you'." This fosters a dismissive, entitled attitude in students, she feels, and makes them especially difficult to teach.

Further, she observes, male students at CU feel free to disrespect women faculty. One place this occurs is on the Faculty Course Questionnaire (FCQ), the official evaluation mechanism of faculty teaching. Nadine says that her women colleagues feel that the FCQ is a "protected forum for sexual harassment," and shares several examples of such comments from students. One student had written, "The biggest problem with your class was that you wore too many clothes," while another suggested that the best way to improve the class would be to "try straight hair." Nadine noted an observation from her experiences that was seconded by others in our interviews, that women faculty must "dress up" at CU to gain the respect of students, whereas men need not do this. In her experiences teaching at another large state university this was not the case, again echoing reports from other women in this study. In fact, she said, at other schools, dressing more like the students made it easier for students to approach her, whereas at CU she feels it leads to a lack of respect.

Additionally, she noted in recent years, conservative students at CU and elsewhere have been emboldened to challenge the authority of their professors by conservative activists seeking to attack "liberal" faculty on American college campuses. These challenges, according to Nadine, are not about the material under discussion in class, but are based on the notion that "liberal" professors and perspectives dominate academia, and that "academic freedom" must be defended by challenging professors' "liberal propaganda." Nadine discusses a student with whom she struggled all semester, saying that in her field, "We get a lot more of this liberal bias crap."

The overall feeling of disrespect on the part of students had a profound demoralizing effect on Nadine, eroding her sense of purpose.

Starting out, you know, it just puts you down a path of not enjoying what you're doing. And, you can't do this job if you're not happy doing it. You have to *love* it (laughs), and be completely motivated to do it no matter what the financial cost and no matter how much students are telling you what a bitch they think you are (laughs) for it to be worthwhile. And, in my research, when I do stuff abroad, it's like you're interacting with people who are so grateful... you're trying to improve their lives and they're so appreciative and it's just such a different mentality versus here, where students, you know... can't stand us half the time. There're some really good students too, so, you know, it's not everybody. But the pushy, nasty students are much pushier and much nastier than the ones I've encountered elsewhere.

Thus her work environment was a big factor in Nadine's decision to leave the university. Between the tense department climate into which she was thrown, and the dissatisfaction of teaching students who were disrespectful, sexist, and challenging her course content, both her scholarly community and her classroom work were less satisfying than she had expected.

## 2. Finances

Finances are another crucial factor for Nadine. As a single person on an assistant professor's salary, Nadine struggles to make ends meet. She reports that her take-home pay does not cover her living and work expenses, and so she uses credit cards to pay for consumable staples such as groceries and gas. She came out of graduate school with significant credit card debt-common, she says, for graduate students where she went to school, but assumed with the expectation that the debt would be resolved once they got a job. While this proved true for some of Nadine's grad school cohort, it has not been the case for her as a single faculty member living in Boulder, with its high cost of living. Nadine is going further into debt despite working 70+ hours per week. She has also experienced health problems, exacerbated by stress. However, she found colleagues unsympathetic to her financial problems, because they focused on how these issues affect her research productivity rather than on how to help her personally. She recognizes the connection between financial strain and productivity-because of her financial difficulties, Nadine has taught multiple overloads and summer courses, which has made it difficult for her to get her research program going-but feels that her department's response has not helped to address what she sees as the root of the problem. Thus, though heavily recruited, she feels her department left her to sink or swim.

Nadine's story illustrates several structural factors that create or exacerbate financial difficulties for newer, single faculty. The first, and most obvious, is the below-average starting faculty salary: CU's faculty salaries, and raises, consistently rank below those of comparable institutions (Office of Planning, Budget & Analysis, 2006). Better salaries would go a long way toward helping faculty like Nadine avoid going further into debt, and would remove financial pressures that lead young faculty to teach overloads and summers when they should be concentrating on their scholarship. Second, many faculty expressed the belief that they cannot get a meaningful raise without an offer from another university or college—as if the university cannot see someone's value unless someone else tells them so. Finally, faculty feel "nickel and dimed" by the university, because it does not subsidize many services that would make their work easier. Costs mentioned by faculty included fast internet service to work and access libraries during "off" hours; parking; affordable, campus-based childcare; and the time costs of commuting from communities with more affordable housing.

Financial concerns have added to Nadine's stress level. Nadine has had to move twice in four years, both times when the condominium she was renting was sold. She was unable to get financial help to secure a mortgage to buy her own place, and felt insulted by a university official whose response to her inquiries was to ask for information about the availability of the condo unit for his child, a college student.

You can't respond to someone about the kiddie condo market—you know, how your privileged child is gonna be living in this condo for the years they're an undergrad, and how he'll get the appreciation when it sells. You can't tell a junior faculty member when

## 3. Career Status

Nadine has since left both CU and academia. At the time of the second interview she had decided not to stand for her reappointment, saying that she was certain that she would not be reappointed. She didn't want to be judged by people who had made her life miserable and who had done nothing to help her when she needed it. The contributions of someone once viewed as a valuable and promising young scholar are now lost. The cumulative impact of financial strain and an unsupportive, fractious departmental climate raised Nadine's stress level, compromised her health, and impeded her ability to concentrate on her scholarly work. Whether she "could have cut it" in the absence of these environmental factors becomes a moot question. As Nadine summarizes, "The main reason I'm leaving is I couldn't stand to stay here the number of years it would take me to get an outside offer to be able to leave. It's like... I'm too unhappy. It's not worth the emotional toll." While it is difficult to separate cause and effect, in Nadine's case, we see clearly how institutional factors can weigh down a promising start.

## C. Vulnerable Success: The Case of Meg

The last story is that of Meg, a woman faculty from a broad-based department. We spoke with her first soon after her pre-tenure reappointment review, and again as she came up for tenure. For Meg, life is better than it was at the time of the first interview: she reports improvement in her work/life balance, career status, and climate. Meg's life feels less hectic because her service load has decreased; her child is no longer an infant. Meg's career status has improved also; her department recently recommended she receive tenure, which has left her feeling positive and validated, but also reflective about the tenure process. Improvements in her departmental climate are the final important development in Meg's work life.

Though she is feeling successful—life is good and getting better—some of Meg's recent experiences demonstrate the fragility of a developing career path and the vulnerability of an individual to changing circumstances: her story is not fundamentally different from Nadine's, but has so far a rather more positive outcome. Moreover, Meg's story illustrates the importance of finding an appropriate work/life balance, developing a positive sense of oneself and one's career development, and working in a supportive climate. Without these supportive factors, the weights the tenure-track competitor must carry toward the tenure finish line get heavier. It is as these weights increase that faculty are at risk, as they flag in their scholarship or as they look for more hospitable opportunities at other institutions.

## 1. Climate

A major source of improvement in Meg's life is an improved climate in her department. In departmental meetings, for example, she feels that she and other newer faculty are being taken more seriously by senior faculty than they have been in the past. She explains this as partly the result of having revealed to colleagues that she is "on the market," exploring her options for positions at other schools, and partly the result of a shift in the department's demographics, as there are more young faculty in the department than when she started. And it seems likely, though Meg does not specifically make the connection, that her department's recent approval of her tenure case informs her increased sense of being taken seriously. A recent search for an open

position also contributed to her sense of improved climate. Meg feels positive about the conversations she'd had with several of the candidates, and she is hopeful that the new hire will increase intellectual community in the department.

Meg feels very supported by her chair and another departmental mentor about being able to take family leave without a negative impact on her tenure case. Both, she says, protected her, making sure that colleagues evaluating her tenure file did not negatively judge her for taking a year's leave while on the tenure clock after having a child. Further, the department's administrative secretary worked hard to find a way for Meg to draw on her accrued sick leave during her family leave, thus reducing the financial penalty from taking leave without full pay. For Meg, having help arranging this leave gave her the greatest sense of support from her department that she has yet experienced.

The biggest positive change in climate for Meg is a somewhat ironic one: her assigned mentor has left the department. Meg has many complaints about her mentor, whom she feels did not always have her best interests in mind, such as advising her to teach for the department despite receiving a grant that included course buyout. She was told she owed a lot to the department, and that she could "pay the department back" by teaching. Her chair also pressured her to teach, leading her to feel that the department did not support her research very well. Because she ended up teaching while she was supposed to focus on research, Meg reports, "The fellowship didn't give me as much as it could have." In fact, the grant increased her workload, because she was teaching the same number of courses while pursuing her grant-funded project.

The degree to which this mentoring relationship—though intended to be helpful—negatively affected her quality of life and her scholarship is evident when Meg says, "The successes in my career have come despite my mentor, not because of her." At another point Meg says, "So many things are changing because she's leaving.... I really feel so much better just about being around the department, asking the questions I'm interested in." With these experiences in the past, and no longer subject to their immediate pressures, Meg is reflective about how she negotiated the relationship, saying:

If I could do everything differently, I would interpret her more as just a person, not as someone who needs to be pleased. As just, you know (laughing), another crazy person. And I would get whatever I could in terms of buy-out, you know? Because that's what the people do who are the most successful. They get the fellowships and they use them.

Meg reports both feeling guilty about the rewards she has received for her intellectual work, such as the course buyout, and angry about that reward not being respected. She suggests that both her treatment, and her response to it, is gendered: she has not seen male colleagues be mentored in the same way.

This example illustrates a double bind for both junior faculty and their departments: while mentors are intended to support new faculty members' development, this particular mentoring relationship had (presumably) unintended negative effects on the career and confidence of an aspiring academic. Mentors who have their own agenda for their mentee's career can be a stumbling block—and at a minimum, it is likely not unusual that mentors will face a conflict of interest around some situations, as in this case. While relationships as polarized as this one may be rare, we heard stories from other interviewees that demonstrated mentors hurting as well as helping new faculty. In one natural sciences department, the formal mentors assigned to new faculty came to be known as "tor-mentors." So having a mentor program in a department is not

enough. Mentors must be mentee-centered and supportive of their goals and need for balance, as well as sensitive to their particular skill sets and fears. They should have ways to help recognize and avoid conflicts of interest, such as having to help bear an increased teaching load for a course release that helps someone else.

Finally, this example illustrates in a concrete way how the climate in a department can function as an additional weight that some faculty must bear as they pursue their career goals. While it has no essential relationship to their merit as scholars or teachers, a negative climate can nonetheless tip the scale in the wrong direction. As Meg puts it, "Work[ing] under a mentor who I feel is really disempowering... has been the hardest part of my whole time before tenure and going into tenure."

## 2. Work/Life Balance

Between the first and second interview, Meg's workload has subsided to more manageable levels. She connects her earlier high workload to her difficulties with her departmental mentor, saying that she had felt pressured by her mentor to do things that she would not otherwise. For example, according to Meg, her mentor found it unfair that Meg was able to travel and do research abroad, things her mentor had not been able to do in her own career. Because Meg was afraid of her mentor speaking badly of her to the department chair, she made extreme efforts to schedule her research around department obligations, for example flying back from overseas data collection to attend a faculty meeting.

Meg has a spouse who works from home and who shares the work of raising children. She is happy in her parenting and partner roles and has found ways to accommodate her child during her field work. Her story does reflect how important it is to have a partner to share the responsibility of daily living. Children are particularly difficult for women faculty when they must work the "second shift" (Hochschild, 1989) on top of their academic shift, shouldering the bulk of childcare and other domestic duties. But for her having a child has been "the best thing for my work because it has made me a little less single-minded." Further, she believes having a child made colleagues in her department treat her as more of a "full citizen," stating that she felt as if she "had been kind of a child [to them] before I became a parent." Meg's experiences demonstrate that, given the right kind of support, having a child has both broadened her life priorities and helped her optimize her academic work time for greater efficiency.

# 3. Career Status

Another important factor in Meg's positive career trend is her department's recent recommendation that she receive tenure. As a result she feels validated and less stressed, and she is eager to spend more time doing high-quality work, rather than focused on her publication "numbers" and feeling pushed to publish. She feels confident about the work she has done and the recognition it has received, and confides that she is "on the market" now. While she complains generally that senior faculty do not listen to young faculty in her department, she says that her potential job mobility makes people listen to her more because they don't want to lose her. Her story validates Nadine's (and others') claims that outside offers are used by faculty to secure desired ends for themselves—at the same time as it confirms the importance of climate as a factor that may lead young faculty to look for positions elsewhere. Meg is thoughtful about what she has learned about herself since the first interview. Pursuing tenure can feel disempowering, she says: she spent so much time trying to please everyone, to not make any mistakes that someone would later point out, that it got in the way of the work itself. And despite all her efforts, it was scary not to know how people would actually respond to her tenure case. Again referring to her conflict with her mentor about the course buyout, Meg suggests that if tenure is really supposed to assess one's contributions to the discipline, scholarship, and students, then,

Lingering resentments about someone not teaching one class one semester... should not be part of the equation. There's just this uncertainty that's scary. It's just—you just don't know. You've done everything you can to please everyone around you for so many years, and you just hope that it worked, you know?

Despite doing better overall, Meg is still considering leaving CU. She is on the market for another job, in large part, she says, because the cost of living in Boulder is too high. When asked if she would really leave CU, Meg states emphatically, "Oh, definitely. It would depend on a lot, but the main difficulty in Boulder is still the cost of living. We're just broke all the time, and that is really hard.... And my department is really highly ranked nationally, but our salaries don't reflect that at all." Unlike Nadine, Meg's financial difficulties do not impede her ability to do her work, but they do make it difficult to enjoy living and raising a family in Boulder. Thus, while less dramatic in their impact for Meg, finances are nonetheless a factor in her job satisfaction, and thus in the retention of a highly successful and recently tenured professor in a department whose demographic balance would suffer if it lost a colleague at this career stage.

## D. Three Women Faculty: Comparing Stories

While these stories are individual and distinct, is useful to recognize some common threads across them. Janie's career trajectory appears to be strong, continuing the positive trend recorded in the first interview. She is tenured, her research and teaching are well established, and she is a recognized scholar in her field. By all accounts she is successful. Yet Janie illustrates a group that we encountered unexpectedly often in our interviews, the unsettled associate professor. Faculty at this stage are at particular risk of leaving the university for another school—perhaps for greener pastures elsewhere; perhaps because, like Janie, they are fed up with the culture and masculinist climate of their departments, or because they do not know how else to find the new kinds of opportunities they seek as their careers mature. At CU, women faculty in the 40-49 age group leave at the same rate as do men, yet as they enter their 50s, the rate of departure of women nearly doubles, while that of men declines by nearly half (Marschke et al., 2007). While there are undoubtedly many reasons behind these stories, one can imagine scenarios that could place Janie in this category: she continues to struggle with her feelings about her departmental setting, sometimes hopeful that things will improve, for a few more years—then becomes frustrated and begins looking seriously for new positions.

Meg is just a few years behind Janie: her story at her second interview is similar to Janie's at our first meeting, with a career trajectory on the upswing. For both Meg and Janie, receiving tenure and national recognition provide validation that their work is seen as important in their broader field, even as they question whether local colleagues value them. Meg has gained tenure recently and feels hopeful that the climate in her department is improving; her personal life is happy and her workload has eased a bit. Nonetheless, she too has considered leaving CU, and perhaps academe altogether, despite many outward signs of success.

Nadine typifies another type of faculty member who is subject to attrition, assistant professors. Statistics show that young women faculty leave CU at 1.6 times the rate at which men leave (Marschke et al., 2007). Nadine struggles to establish herself in her department and discipline, but meets some early and significant difficulties in doing so. While her story seems different from Meg's and Janie's narratives because Nadine is ultimately unsuccessful in establishing her academic career, her financial worries, personal stress level and resulting health concerns, and the unpleasant surprise of her department's contention all resemble concerns that Meg raised in her first interview. That is, their stories share enough commonality that it is obvious only in hindsight that they will end differently.

Janie's consideration of leaving the university comes from her concerns about her department and campus climate, which seem to loom larger in her mind now that she has successfully navigated tenure. She senses limitations in the possibilities of career advancement along the direction she would like to develop. Weighed down by an uncollegial climate and by financial concerns, Nadine's ability to focus on her scholarly work has suffered. She has lost confidence in herself and lost the support of the department with which she began. Explaining her failure to thrive at CU is not simply attributable to one cause, but clearly these factors intertwine along her downward trajectory. Meg's story shows how improvement in these same factors can improve satisfaction on the job, again in complex and interconnected ways. Yet other factors may ultimately cause Meg to leave her position. While each individual has a unique story, the issues raised in their stories are not unique—the same issues are seen in the larger group of trajectories portrayed in Table 2 and in the discourse captured in Table 1.

## V. Conclusion

In this paper we identify significant systemic factors that affect individual careers, reducing career satisfaction and success, and influencing individual career trajectories that ultimately impact institutional retention efforts. The stories of three women faculty represent the ways these factors play out in three different academic career trajectories: Janie, whose career trajectory remains on a previous positive trajectory, but whose overall satisfaction is unclear; Nadine, whose academic career is flagging; and Meg, whose career is ascending but who has met many difficulties along the way that could have made things come out differently. Work/life balance, career status, climate, and finances are each structural and cultural factors that act as barriers to successful and fulfilling careers for faculty, especially women. It is important to note that the barriers identified in our interviews with tenure-track faculty are essentially identical to what non-tenure-track researchers and instructors, interviewed in another part of our study, had identified and considered when they made their own, alternative, career choices.

To represent the effects of these factors, we use the metaphor of a track meet in which competitors must run while wearing chains. These chains are distributed unevenly among competitors—not all competitors have to wear chains, and the chains are not of equal weight. All the runners have trained hard and been successful in previous competitions; they have drive and reserves of energy, but those wearing chains fight an increased effect of gravity for which their bodies are not prepared. Some finish the race despite their greater burden, but they exhibit the effects of their harder race through lowered morale and reduced institutional commitment. Others do not finish the race, dropping out or being disqualified under a standard of measurement that does not reflect their disadvantage. A track meet conducted under such circumstances cannot claim that the winners are in fact truly the best.

Likewise, it is important for the university to confront issues that reduce equity of opportunity for faculty to succeed. While each of these stories can be explained—or explained away—in terms of individual and idiosyncratic circumstances, the cumulative weight of evidence shows how systemic factors have an impact that may be differential. These are challenging problems, but important ones. Addressing them can maximize the university's investments in faculty recruiting, development, and retention, and in attracting and supporting the best minds to accomplish its mission to foster an environment of free inquiry where knowledge about the world can be generated and solutions to its problems explored.

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