# Outcomes of Faculty Development Initiatives of LEAP, Leadership Education for Advancement and Promotion, an NSF ADVANCE Project at the University of Colorado at Boulder

Mid-Course Evaluation Report November 2005

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# **Executive Summary**

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### **Project Overview and Evaluation Goals**

This report discusses the findings from a program evaluation conducted for LEAP, Leadership Education for Advancement and Promotion, at the University of Colorado (CU) at Boulder. The report is offered as a mid-course evaluation, focusing on the primary LEAP interventions and their outcomes to date, since the program began in 2002.

LEAP seeks to improve faculty retention and promotion rates at the university by increasing faculty effectiveness, building collegiality, and reducing stress. The approach is grass-roots and faculty-centered: LEAP aims to provide "the skills needed to work with others, to run meetings, to plan, to balance work-life issues, and to succeed in their goals."<sup>1</sup> The project's hypothesis is that these skills will enable faculty to "thrive"—to be more effective both personally and collectively, thus improving both their individual career success and the collegiality and climate of their departments and the university as a whole. Moreover, some of these faculty will be identified as particularly effective, and they will become "a cadre of effective leaders who will move both the institution and their particular fields of expertise forward."<sup>1</sup>

The primary intervention for accomplishing these goals is a program of faculty development that includes leadership training and mentoring. While LEAP hosts a variety of short workshops, talks, lunches, a book group, and other programs, the largest effort is devoted to the multi-day leadership workshops, offered at two levels: introductory leadership workshops targeted at assistant professors and advanced leadership workshops aimed at tenured faculty considering or taking on new leadership roles in their departments, campus committees, or administrative offices. Introductory workshops are offered twice a year, and advanced workshops once a year, both during semester breaks. We refer to these two types of workshops collectively as leadership workshops.

A second faculty development effort, the LEAP Coaching program, offers one-on-one coaching partnerships to early-career faculty. Senior faculty participate in an intensive training workshop and then are matched one-on-one with an assistant professor in another department, in order to remove the relationship from the evaluative role of the department during the tenure process. Coaching relationships are intended to provide advice and strategies to early-career faculty and not to substitute for departmental mentoring. Coaching pairs meet on an as-needed basis through the academic year for as long as agreed by the partners.

<sup>&</sup>lt;sup>1</sup> Quotations from project web site, <u>http://advance.colorado.edu</u> (accessed 10/19/05).

In this report, we will discuss our findings on participation in these two major LEAP programs, leadership workshops and coaching: who participates and why, what they gain from the program, how they use what they have learned, and their critiques and advice to the project about its activities and aims. To place these findings in a broader context, however, we note that LEAP's focus on faculty development is somewhat unusual among the currently funded ADVANCE projects. In the report that follows, we consider the outcomes of this bottom–up, faculty-centered model for change as one of several models tested by the ADVANCE program through its portfolio of funded projects. In keeping with this grassroots approach to institutional change, the programs are offered to all tenure-track faculty, not just women and not just science, technology, engineering and mathematics (STEM) faculty. The project argues that "a rising tide raises all ships," and thus developing skills and improving climate will aid all faculty. If, it suggests, issues of climate and collegiality particularly affect women, then improving these will particularly aid the retention of women, especially in science and engineering disciplines where they are few in number.

The goals of the evaluation are to:

• Provide formative feedback to the LEAP project personnel. To date, information summarized from post-workshop surveys and interview data has been used by LEAP leaders to get a better sense of the pressing needs and issues of concern to faculty, and to adjust the design and content of the workshops to more effectively address these issues and needs. In this report, we seek to provide additional information about what has been working or not working and why, and about what changes might be made to further enhance the project's accomplishments.

• Measure changes in individuals and the institution attributable to LEAP programs, including changes in skills, attitudes, climate, and coping ability. This goal has both summative and formative elements, and addresses both individual and institutional change. We are interested in the effects of the intervention on individuals and any changes they observe in their immediate environment or the system as a whole.

The data sources for this report include surveys and focus group interviews conducted immediately following the leadership and coach training workshops, and interviews with participants in the leadership workshops and coaching program conducted several months after their workshop participation or, for coaching pairs, the initiation of their coaching relationship. Details of the samples and methodology are included in the report.

### **Summary of Findings**

### Motivations

Nearly half of participants' statements about motivations for participating in LEAP programs cited their desire to gain skills that they viewed as strategic for their career growth. Personal recommendations and the stipend were also influential in participants' decisions to attend. Coaches reported a desire to "give back," including interest in helping younger faculty and support for LEAP's goals.

### Benefits from Participating in Leadership Workshops

Participants interviewed about the introductory and advanced workshops made 228 statements about benefits received from participating. They also offered insights into aspects of the workshops that helped to foster these benefits. Gains in the career skills specifically taught in

the workshops accounted for over one-fourth of these statements (26%), principally gains in interpersonal and communication skills and skills in managing work and time. Similarly large gains (28% of all gains statements) were reported in the formation of enhanced networks, including networks with peers that provided career and emotional support, and links to senior faculty and administrators. This benefit was less anticipated by project designers but was nonetheless fostered by the workshop design, with its many opportunities within the workshop to discuss meaningful issues in a supportive group of peers. Substantial gains (22%) were also reported in understanding and knowledge. Gains from hearing the perspectives of others included appreciating differences for faculty in other departments and for women, while new knowledge included an understanding of how the university works outside one's own department and of tenure expectations. Personal gains, particularly gains in confidence about one's career decisions and a sense of being supported by the university, accounted for 16% of all gains observations. Other benefits reported included the stipend, and opportunities to reflect and plan for one's career.

The interview data corroborates the positive responses from the post-workshop surveys. Participants in leadership workshops found sessions on time management and various types of communication skills effective, and valued the positive workshop atmosphere that was established by the facilitators and participants. The large majority (92%) of participants across all workshops said the workshop met or fully met their expectations. All participants responding said they would recommend the workshop to others.

#### Benefits from Participating in the Coaching Program

Two major types of benefits emerged from the coaching program. Gains in perspective were reported by both coaches and assistant professors: the coach's broader perspective helped their partner to discern important issues from less important ones and functioned as a "reality check." Coaches provided a source of useful information and a chance to discuss concerns outside the evaluative environment of the department. Enhanced networks were a second type of benefit—not only through the individual coaching relationship, but also through the ways in which the coaches used their own networks and understanding of faculty social dynamics to foster other connections for their partner. Coaches themselves made new, valued connections through the coach training workshops and felt they were doing important work in supporting newer faculty and building intellectual community at the university.

Responsive listening and trust were cited as important elements of the coaching relationship. Interviewees speculated on the reasons behind the relatively low demand for coaching despite its evident (from this data) success. Stigma associated with the term "coach" or that one might "need" help and the difficulties of committing time in the immediate term to an activity with a longer-term payoff were discussed as the most likely reasons behind the low interest from assistant professors in this program.

#### Other Evaluative Observations and Advice about the Programs

In both immediate post-workshop surveys and later interviews, participants' positive feedback addressed the workshops' atmosphere, the facilitators, and the materials received. Facilitators were cited as responsive to participants' needs. Negative feedback addressed a few specific workshop sessions that were seen as less effective than the workshops as a whole. Participants gave the project advice about the timing, length and structure of the workshops and additional topics for stand-alone workshops and follow-up sessions. Early-career faculty sought advice on

advising and tenure preparation, while newly tenured faculty wanted to discuss with others their options for career renewal and change. Senior faculty taking on new leadership roles sought preparation for these roles, while those considering administrative roles sought opportunities to discuss with experienced colleagues the advantages and disadvantages of taking a university administrative role.

#### Observations about the LEAP Model of Change

We report the views of the faculty participants on the faculty development model of institutional change that LEAP espouses. These views address the potential for institutional change of the type sought by LEAP and the ADVANCE program as a whole through the support of individual faculty. Participants offered their own ideas of how the model may be effective or ineffective and gave advice for how its achievements might be enhanced by broadening, altering, or reinforcing the model of change. These views give insights into some of the issues the project may need to address in communicating and accomplishing its vision.

Nearly all participants supported the goals of LEAP, but differed as to the degree to which they felt the project could accomplish its goals through its chosen strategies. Those in support of the chosen strategies felt that change was best initiated by faculty and accomplished through grassroots efforts rather than a top-down mandate that might be largely ignored. They suggested that LEAP had an important role in educating faculty, raising awareness about the issues, and providing support and training for individual change-makers. A critical mass of more skilled and more aware faculty could make a difference at the department level, for example. New, more skilled leaders would emerge from this cadre of well-prepared faculty.

A comparable number of observers raised critiques of the project's model of change. These included concerns that focusing on individuals did not recognize or address the role of structural issues in perpetuating inequities. Others were concerned that the project was "preaching to the choir" and thus not reaching the audiences they felt were most in need of change. Some felt that a bottom-up approach to change could not be achieved without more attention to parallel, top-down initiatives and the role of highly visible institutional leaders. These participants sought a better articulated vision for how the project's strategies would accomplish the desired changes, and broader leadership that would promote truly institution-wide change. While concrete suggestions for how to adjust the model of change to be more effective were few, two common suggestions that were felt to lead toward real change were to require chairs' training and to focus broadly on diversity.

### **Conclusions**

From the evidence, it is clear that the LEAP programs have been beneficial to their participants. The programs are providing many individuals with useful skills and knowledge, supportive personal and professional networks, and increased professional confidence due to the new skills and the sense of support and investment by the university. The strong positive outcomes of these faculty development programs that we have documented suggest that the project has been effective in attracting, developing, and energizing faculty—a finding that begins to validate the project's hypothesis of change based on faculty development.

However, we do not yet believe that this model of change has been tested to its maximum capacity. Faculty express a desire to be more engaged in the project and a willingness to assist in helping push forward the project's aims; this is clearly an outcome of their initial positive

experiences with the program and their sympathy with its goals. But we have not yet seen in our data signs that faculty have been so engaged, nor that their efforts are reinforced by top-down initiatives that might enhance the overall change initiative. It may be too early—but we have yet to see signs of change in the climate that would represent the outcome of the "rising tide" change mechanisms proposed by the project and some of its faculty participants. We encourage the project to build upon the good will, community readiness, and interest that it has already stimulated; to develop greater community ownership of the change process; and to seek ways to empower faculty collectively as well as individually to tackle some of the challenging problems that they so clearly identify.

#### Acknowledgments

We acknowledge the LEAP principal investigator, Patricia Rankin, co-principal investigator, Joyce Nielsen, and the LEAP advisory board for their interest and assistance. Project coordinator Carole Capsalis kept us well informed of project initiatives and provided helpful background information, participant lists, and clarifying details. We have enjoyed lively discussions with Robyn Marschke, Elizabeth Sheff, Megan Murphy, Dawn Stanley, Jammie Speyer-Benton, and Rich Donohue. Ann Austin provided helpful advice at several stages. Lynn Staeheli graciously shared the work of the Chancellor's Committee on Women, which corroborates many of our general findings. We thank Anne-Barrie Hunter for her editing work.

Most importantly, we thank the project participants who shared their time and ideas. We recognize that time is a valuable commodity for all in the university community, so we are honored by the good cooperation and interest that we have met. We especially appreciate the candor with which faculty spoke to us about their work and their lives, and their trust that we would preserve their confidentiality while communicating their ideas accurately. We hope that we have done so.

# Introduction

## I. Project Overview

This report discusses the findings from a program evaluation conducted for LEAP, Leadership Education for Advancement and Promotion, at the University of Colorado at Boulder. The report is offered as a mid-course evaluation, focusing on the primary LEAP interventions and their outcomes to date, since the program began in 2002. The study is conducted by members of an independent research unit, Ethnography & Evaluation Research (E&ER), within the Center to Advance Research and Teaching in the Social Sciences (CARTSS), also at the University of Colorado at Boulder. LEAP's activities and this evaluation are funded by a five-year grant (2002-06) from the National Science Foundation's ADVANCE program.

As described on the project web site,<sup>2</sup> LEAP seeks to improve faculty retention and promotion rates at the University of Colorado (CU) by increasing faculty effectiveness, building collegiality, and reducing stress. The approach is bottom-up and faculty-centered: LEAP aims to provide "the skills needed to work with others, to run meetings, to plan, to balance work-life issues, and to succeed in their goals." The project's hypothesis is that these skills will enable faculty to "thrive"—to be more effective both personally and collectively, thus improving both their individual career success and the collegiality and climate of their departments and the university as a whole. In addition, some of these faculty will be identified (or self-identified) as particularly effective, and they will become "a cadre of effective leaders who will move both the institution and their particular fields of expertise forward."

The primary intervention for accomplishing these goals is a program of faculty development that includes leadership training and mentoring. The largest effort, in terms of participation, is the multi-day leadership workshops, offered at two levels: introductory leadership workshops for assistant professors and advanced leadership workshops for tenured faculty considering or taking on new leadership roles in their departments, campus committees, or administrative offices. Introductory workshops are offered twice a year, typically in January and June, and advanced workshops once a year, typically in June. We refer to these two types of workshops collectively as leadership workshops; they are a major focus of this report.

A second faculty development effort, the LEAP coaching program, offers one-on-one coaching partnerships to early-career faculty. Senior faculty participate in an intensive training workshop and then are matched one-on-one with an assistant professor in another department, in order to remove the relationship from the evaluative role of the department during the tenure process. Coaching relationships are intended to provide advice and strategies to early-career faculty and not to substitute for departmental mentoring. The coaching pairs meet on an as-needed basis through the academic year and last as long as mutually agreed by the partners. The coaching program is also discussed extensively in this report.

While the leadership workshops and coaching program have been the most visible and extensive programs, other LEAP activities also focus on faculty development at various career levels. At the senior level, LEAP provides partial support (matched by the university) for a senior woman faculty member to serve as an associate vice chancellor (AVC) for one year. The AVC position is intended to provide a promising candidate with experience in the upper-administration, both to

<sup>&</sup>lt;sup>2</sup> http://advance.colorado.edu, accessed 10/19/05.

"try on for size" such a leadership role and to provide relevant, practical experience that would further her pursuit of a more permanent administrative position if she so chose. LEAP has contributed to development of training sessions for department chairs and is promoting required participation by all department chairs. Lunches arranged for women who are department chairs are an opportunity for women in leadership positions to network and share concerns and strategies. The chairs' training and lunches were not evaluated for this project. Interviews are being pursued with the AVC position holders, but given the small number of participants we cannot report on this program independently at this time without compromising confidentiality.

At the other end of the faculty pipeline, a program for postdoctoral researchers was co-initiated with the Graduate Teacher Program, resulting in an institutionalized and nationally affiliated program to support postdocs' career and skill development and job search process. Lastly, for a general faculty audience, LEAP offers several additional faculty development resources: mini-workshops or "one-offs," one to four hours in length, on a variety of topics related to leadership development; a women's book group on leadership topics; occasional seminars by distinguished scholars on gender issues in academe; and a set of brochures summarizing university resources and policies on topics such as faculty recruitment and work/life balance. While evaluators have attended some of the short workshops and seminars, these activities began after the evaluation plan was developed and are not included in the evaluation design. However, judging by attendance and audience response, these programs appear to be generally well-received. As the ending date for the external funding approaches, efforts are underway to integrate many of these faculty development offerings into campus programs in a sustainable way.

In addition to its faculty development offerings, LEAP supports a research agenda designed "to understand the context in which people choose to pursue academic careers, the environment they are working in, and any obstacles they face." Studies have included examination of promotion, tenure, and attrition rates among university faculty and numerical modeling of the faculty gender mix that results from these rates (Marschke, et al., 2005); faculty salary differentials and models for interpreting these (Marschke, 2004); and a survey of campus climate (Nielsen, et al., 2004). In addition to its evaluation work, the E&ER team is conducting a research study, known as the Career Pathways, or simply "Pathways" Study, that examines career paths for academic scientists and engineers who are not on the tenure track, including teaching faculty (known as instructors on this campus) and research faculty (primarily with the job title of "research associate" on this campus), and late-stage STEM graduate students who are approaching their own career decisions.

In the following report, we will discuss our findings on participation in the two main LEAP programs, leadership workshops and coaching: who participates and why, what they gain from the program, how they use what they have learned, and their critiques and advice to the project about its activities and aims. To place these findings in a broader context, however, we note that LEAP's focus on faculty development is somewhat unusual among the currently funded ADVANCE projects. While the funded projects vary greatly from campus to campus, many provide resources directly to women STEM faculty through grants and fellowships, intervene directly in hiring and recruitment processes and policies, and conduct training and education specifically targeting diversity issues. In this report, we consider the outcomes of this bottom-up, faculty-centered model for change as one of several models tested by the ADVANCE program through its portfolio of funded projects.

LEAP is unusual among ADVANCE projects in another way. The NSF ADVANCE program as a whole is directed toward improving the success of women faculty in STEM disciplines. Yet LEAP offers its programs to all tenure-track faculty, not just women and not just STEM faculty. This choice is based on the proposition that "a rising tide raises all ships," and thus developing skills and improving climate will aid all faculty. However, the project hypothesizes, issues of climate and collegiality particularly affect women, and thus improving these will improve the retention of women, particularly those in science and engineering disciplines. Following this line of reasoning, collegiality and climate cannot be improved by supporting only a small fraction of the faculty, and thus LEAP programs are offered widely. The rationale behind this strategy has been articulated as follows:<sup>3</sup>

These workshops and the coaching program, while focused on individuals, are producing a growing community of people who are realizing that they share a vision of a better CU. The goal is to develop an institutional environment at CU within which different styles and different approaches are not only accommodated but also encouraged. LEAP cannot solve directly problems such as "two-career couples," how to care for young children and pursue a tenure track appointment, or how to move from an instructor position. It can provide a framework within which to hold discussions on these issues. It can also help empower people to work on solutions to these problems and help them believe that these are soluble problems.

This statement outlines the project's hypothesis as to how supporting the professional development of individuals can lead to broader, "institutional transformation" of the type that ADVANCE seeks to foster. A model for systemic change that emphasizes human development and capacity-building is one that is attractive to many change-makers and that has been undertaken in a variety of settings. While some of the findings reported here will be of interest primarily to the project leaders and participants, we see our task as evaluators as two-fold: (1) to provide feedback to the project personnel, so that they can build upon the project's successes and improve upon its weaknesses, and (2) to understand more profoundly the nature, extent, and limits of achievement possible under this model of change for the benefit of the ADVANCE program and other change efforts.

## **II. Evaluation Design**

## A. Goals of the Evaluation

The evaluation was designed in consultation with the LEAP principal investigator and was discussed with the project's advisory board. A summary of this approved evaluation design is provided as Appendix 1. The goals of this study are to:

• Provide formative feedback to the LEAP project personnel.

To date, information summarized from workshop evaluations and interview data has been used by LEAP leaders to get a better sense of the pressing needs and issues of concern to faculty, and to adjust the design and content of the workshops to more effectively address these issues and needs. In this report, we seek to provide additional information about what has been working or not working and why, and about what changes might be made to further enhance the project's accomplishments.

<sup>&</sup>lt;sup>3</sup> "What is the Leadership Education for Advancement and Promotion (LEAP) Program?" January, 2004.

• Measure changes in individuals and the institution attributable to LEAP programs, including changes in skills, attitudes, and coping ability, and in departmental climate. This goal has both summative and formative elements, and addresses both individual and institutional change. The evaluation poses the questions:

• As people participate in a LEAP intervention, what, if any, changes do they observe in themselves and in their environment, and how do LEAP activities contribute to those changes?

- Did the intervention make a difference for its participants, and how?
- What effects on the system (if any) does it have, and how do these arise?

The evaluation design, and this report, draw on data from several sources. For the leadership workshops, these include surveys completed by individuals immediately following their participation, focus group interviews conducted at the end of the workshop, and follow-up interviews with workshop participants some 12-18 months after participation. For the coaching program, data sources include immediate post-workshop surveys and focus groups for the coach training workshop participants (i.e., the coaches), and follow-up interviews with both coaches and coaching partners 12-18 months after the partnership was initiated. We will use the term "coaching partner" to refer to the assistant professor partner (or, inelegantly, the "coachee") and the term "coach" to refer to the senior faculty partner.

Surveys were chosen as the immediate workshop evaluation strategy to provide rapid formative feedback to the workshop facilitators that would enable them to adjust workshop content, presentation, and logistics. Focus groups were used to validate the survey instrument and probe for any unanticipated issues. These two strategies were primarily formative and were designed to provide a validated, useful survey instrument to the workshop facilitators that they could continue to use independently over the life of the project.

For the follow-up component of the study, qualitative interview methods were used because they enable investigation of the nature and range of longer-term outcomes and the processes by which they arise. These minimally structured interviews promote the discovery and in-depth analysis of issues important to both the interviewees and the interviewers, as opposed to testing the hypotheses of researchers who have already narrowed the issues to a precise set. The interviews provide both formative and summative information.

The interviews with participants in the leadership workshops and coaching program were conducted to investigate the longer-term effects of the programs on participants' knowledge, attitudes, affect (such as confidence), and use of leadership skills. These interviews were conducted several months after the workshops, to allow participants time to reflect on and apply the workshop ideas. The interviews focused on longer-term workshop outcomes—whether direct, as in understanding and use of the workshop material itself, or more indirect, from making connections with other participants and affective changes resulting from participation. For the coaching program, interviews were conducted several months after initiation of the coaching relationship and explored the nature of the coaching relationship and its utility to both partners. For both groups, we inquired about participants' motivation to participate, their views of the LEAP goals and strategies overall, and their advice to LEAP. Finally, we sought to establish the background and setting for each respondent's comments: their career path to date and current career status, their departmental setting, and their future career plans.

### B. Study Methods

The preceding discussion summarized the evaluation strategies. In this section, full details of the study methods are provided.

## 1. Formative Evaluation of Workshops using Surveys and Focus Group Interviews

Surveys were administered at the end of the workshops to gather immediate feedback from participants on the workshop information, structure, facilitation, and logistics. Surveys were administered for seven workshops, five introductory and advanced leadership workshops, and two coach training workshops. In addition, focus group interviews were conducted with the first five workshop groups (three leadership, two coaching) to triangulate and elaborate on the survey findings.

The survey instrument provided mostly formative feedback for use by the facilitators in improving the workshops. Surveys asked participants to describe the greatest strengths and weaknesses of the program, provide feedback on the topics, speakers, and facilitators, and make suggestions for future improvements. Survey responses were analyzed, summarized and reported to facilitators within one to three weeks after each workshop. The data were presented in summary form with all identifying information removed from the report.

Survey responses were analyzed by counting frequencies of response to multiple-choice questions and by coding for patterns in the open-ended responses. Answers that were idiosyncratic or gratuitous (e.g. comments on presenters' personalities) or revealed identifying information were excluded. The earlier, detailed reports on each workshop included summaries and interpretations of the responses for multiple-choice and open-ended data, with quotations to illustrate points.

Beginning with a comprehensive instrument developed for the first leadership workshop in June 2002, the instrument was refined based on participant responses. Items were changed or deleted, and some experiments (both deliberate and inadvertent) to optimize response were attempted—for example, using daily feedback forms vs. a comprehensive final instrument, or completing the form at the workshop vs. completing it afterwards and sending it via campus mail. Because the first coaching workshop in September 2002 was offered in multiple sessions across several weeks, survey forms were collected after each session for this workshop.

When we were satisfied that the survey instrument was effective and accurate in gathering participants' immediate feedback, we provided the instrument to the LEAP leadership team to administer the survey and analyze the results themselves with quicker turnaround. Analysis of the initial post-workshop survey data was helpful for the evaluation team in developing interview protocols and understanding the character of the intervention; the data is now used directly by the workshop facilitators to monitor the effectiveness of the workshops. A copy of the final instrument is provided as Appendix 2.

Focus group interviews were used to test the validity of the survey instrument and to uncover any issues that the instrument might not capture. We compared the interview responses to the survey information and found high consistency between the survey responses and focus group comments, which increased as the evaluation instrument was fine-tuned. Following the June 2003 coaching workshop it was decided that focus group interviews were no longer necessary because the written instrument was capturing the feedback reliably.

### 2. Longitudinal Interview Study

For the interview study, our methods of data collection and analysis are ethnographic, rooted in theoretical work and methodological traditions from sociology, anthropology and social psychology. Classically, qualitative studies such as ethnographies precede survey or experimental work, particularly where existing knowledge is limited, because such studies can uncover and explore issues that shape informants' thinking and actions, and estimate the relative significance of these issues. The ethnographer generates hypotheses for the experimentalist to test and questions for the survey investigator to ask. However, using computer software designed for this purpose, ethnographers have also been able to disentangle patterns in much larger text data sets than was previously possible, and to report their findings using descriptive statistics. Although conditions for statistical significance are rarely met, the results from analysis of text data gathered by careful sampling and consistency in data coding can be very powerful.

Confidentiality has been a crucial issue in this study. Taped interviews are transcribed *verbatim* by transcribers who have no affiliation with the university, to maintain strict confidentiality for these sensitive interviews with persons who may be known to student transcribers. To preserve confidentiality and anonymity, the names of interviewees were known only to the interviewers, kept in a locked drawer, and replaced with coded labels on all documents and tapes. In reports of findings, no interviewee is identified. The study was approved by the Human Research Committee at the University of Colorado at Boulder.

Interviews were conducted by telephone or in person, lasted 60-90 minutes, and were recorded with the interviewee's prior permission. After transcription, the transcripts were submitted to N'Vivo, computer software that allows for the multiple, overlapping, and nested coding of a large volume of text with a high degree of complexity. Each interview transcript was searched for information bearing on the research questions. Information is typically embedded in speakers' accounts of their experience rather than in abstract statements. Transcripts can be checked for internal consistency among opinions or explanations offered by informants, their descriptions of events, and the reflections and feelings these evoke.

Segments referencing issues of different type or perceived importance are tagged with code names. Codes are not preconceived, but empirical—each new code references a discrete idea not previously raised. Because answers to the same question may differ in character or cover different issues, codes are developed to describe the nature of the response given, not the question asked. Interviewees also offer information in spontaneous comments, narratives, and illustrations. They often make several points in the same passage, each of which is separately coded.

Each coded file contributes to the data set of both coded observations and the defined codes that label them. Groups of codes that cluster around particular themes are assigned to domains (Spradley, 1980). This interconnected and branching set of codes and domains grows into a codebook that, at any moment, represents the state of analysis. For example, over 2791 code names have been developed for the first-round interviews. The content of approximately one third of these is discussed in this report; analysis of other issues in the codebook will be reported later.

The clustered codes and domains and their relationships define themes of the qualitative analysis. In addition, the frequency of use of particular codes or domains can be counted for the sample or for important subsets (e.g., by gender or workshop session). Together, these frequencies thus

describe the relative weighting of issues in participants' collective report. In this report, we have reported these frequencies in terms of the number of observations about a particular topic—not the number of individuals raising it. However, to avoid overstating the weight of opinion, we have used conservative counting conventions, counting any code only once per interview even if it is used multiple times. Because of the nature of loosely structured interviews (as opposed to the uniformity of survey questions), these numbers do not represent a quantitatively reliable measure of respondents' feedback. Questions are not asked in the same order or with the same wording in every interview; and some topics arise spontaneously and thus are not represented in every interview. Comments made by a single individual may be particularly insightful in explaining and relating comments made by others. Thus, the numbers should not be used to make statistical inferences, but are nonetheless useful in indicating the general magnitude of trends.

The interview protocols asked participants to report on outcomes of the workshops for them as individuals, and to comment generally on what had "stuck with them" since the workshop. They offered advice and critiques of the workshops in particular and of LEAP's approach to change more generally. We asked participants to describe their career path to date and their departmental environment. In order to discern how individual benefits from participation might lead to institutional change, protocols also probed for signs of personal, professional, and institutional change, as seen by program participants. Questions explored possible changes in aspects of faculty work situations such as:

- Work situations, promotions, opportunities made available or chosen; salary, status, resources (e.g. lab space), etc.,
- Civility and respect (from staff, colleagues, students),
- Changes in syllabi, policies, and class behavior of faculty,
- Awareness of workplace equity issues, their sources and consequences,
- Feelings of empowerment and options for actions,
- Morale and optimism for the future,
- Efforts to try new things or act differently
- Shifts in aspirations, expectations, and what faculty see as possible,
- Access to resources, changes in allocation of resources in departments,
- Sense of isolation; sense of collegiality,
- Changes in context: e.g., how departments handle work-life balance, resource distribution; which faculty contributions are valued and rewarded?

Other questions explored participants' perceptions of how change happens or fails to happen, addressing issues (not necessarily in these words) such as:

• What does it take to succeed in your career? What did you think it would take to succeed when you started? What are the costs?

• How did you learn about career success? What are the sources of, and changes in, your ideas about the nature of professional success and factors that influence it?

• What needs to change to improve the situation for women in science and engineering in academe?

- What tells you the system is changing?
- What is the contribution of LEAP to beneficial system changes, from your viewpoint?
- What is still not addressed by the LEAP initiative? What more is needed?

Thus the questions probed individual change as a possible outcome of the LEAP interventions, individuals' views of how such individual change would or would not lead to institutional change, and their views of what the problem was and how to solve it. In this report we will focus on the outcomes for individuals and their ideas about how these outcomes may or may not lead to institutional change.

The first-round interviews were conducted during the first two years of implementation of the LEAP programs, and thus occurred too early to see any real evidence of institutional change (or to confirm its absence). In the second round of interviews, we are focusing on the changes described above: we will directly compare first- and second-round responses to look for signs of real change, as seen, for example, via the indicators listed above. In addition, we will report later on how faculty frame the problem: what is difficult or intractable for them in academic life, and how it could be solved? These descriptions point to additional needs and challenges.

Given their focus, we refer to these interviews collectively as the "Change" interviews. Their primary purpose is evaluative, but information about faculty career paths is contributed to the Pathways study, and information about the broader issues of systemic change is relevant to the research base on institutional change. Thus the interview data serves several purposes. Other issues represented in the Change interview data include faculty thoughts on: the pros and cons of a career in academia; their own career paths, career satisfaction, and career needs and plans for the future; the values and reward structures built into the tenure system; work-life balance; the two-body problem; the nature and origins of gender issues in STEM and non-STEM fields; the climate, politics, and value systems of their discipline, department, college, and university; interdisciplinary work; mentorship; and needs and possibilities for institutional change. These issues will be the topics of separate, future reports.

We add this note on the conventions used in citing participant quotes: it is generally our habit to omit the names of individuals from quotations, because the names used can identify the speaker. We have done so in all cases of this type. However, we have chosen to retain in some quotations the names of specific LEAP project personnel whose functions are highly individual and identifiable. In all cases the quotation refers to the role and function of the individual and not to specific traits or behavior of the individual.

## C. Study Samples

## 1. Samples for Surveys and Focus Groups

Table 1 shows the number and gender of workshop participants and the response, by workshop, for surveys and focus groups.

The focus groups were scheduled at the end of the workshops and thus included all participants present at the final session. Survey response rates varied depending on the timing and method of administration, as noted in the Methods section. Unsurprisingly, administering the survey during the scheduled workshop time was most effective in yielding a high response rate.

As Table 1 shows, the programs attract many women, but also a substantial number of men, consistent with the project's choice to offer resources to both men and women in order to broadly improve campus climate and collegiality. Comments by participants about the experience of being in a female-dominated group (the case with some workshop groups) are reported in the findings.

Although the majority of workshop attendees were tenure-track or tenured faculty, a few individuals in other research, teaching, or administrative positions attended workshops as well. Of all attendees in the leadership workshops (n=56), 29 were assistant professors, nine were associate professors, and twelve were full professors, with the remainder in other types of positions. Assistant professors are strongly represented because this group was targeted by the introductory workshops. Coach training workshops were designed for senior faculty members, to prepare them to serve as coaches for beginning faculty. Even so, there was diversity in the ranks of those who attended. Of the coach training workshop attendees (n=16), two were assistant professors (soon to be tenured), six were associate professors, and eight were full professors, four of whom were department chairs or directors of their units.

	All workshop participants	Female workshop participants	Male workshop participants	Focus group conducted?	Survey responses
Leadership (6/02)	9	8	1	Yes	9
Introductory Leadership 2 (1/03)	14	7	7	Yes	6**
Advanced Leadership 1 (6/03)	7	6	1	Yes	7
Introductory Leadership 3 (1/04)	14	11	3	No	14
Advanced Leadership 2 (6/04)	12			No	12
Coach Training 1 (11/02)	10	6	4	Yes	9*
Coach Training 2 (6/03)	6	2	4	Yes	2**
Leadership subtotal	56	40	16	3 groups	48
Coaching subtotal	16	8	8	2 groups	11
Total	72	48	24	5 groups	59

**Table 1:** Workshop Participants and Evaluation Samples, by Workshop and by Gender, for Evaluated LEAP Leadership and Coaching Workshops, 2002-04

\*Separate forms were given for each of the multiple sessions; response rate was not consistent across sessions. Responses from at least nine different individuals were received for at least one session.

\*\*Forms were not completed during workshop sessions but were completed afterwards and sent via campus mail.

Participants in these programs included members of 33 departments from the colleges of arts and sciences, engineering, business, and law as well as other academic units—research institutes, the CU museum, and the libraries. About half of the departments represented were from STEM fields. Several departments had multiple participants in LEAP programs, and others had none.

When surveys were completed as part of the workshop agenda, the response rate was 98%. Overall, including workshops using less effective methods of survey distribution and completion, the response rate was 82%.

## 2. Interview Samples

Interview samples were drawn from program participants in the first four cohorts of leadership workshop participants and the first two cohorts of coaching partnerships (i.e., from six of the seven cohorts listed in Table 1). In order to measure change over time, at least two interviews are being conducted (early and late) with each cohort. We do not list the interviewees by cohort in order to preserve confidentiality.

From the leadership workshops, we spoke with 35 participants. Every workshop cohort was represented well, with interviews including 50-90% of participants in each cohort. From the coaching partnerships, we interviewed 12 participants: five coaches and seven early-career faculty who were coaching partners. When interviewees participated in multiple LEAP programs, we spoke with them about each of their program involvements during the interview.

As Table 1 shows, both women and men participated in the workshops. Women were the majority, at two-thirds of participants. The interview samples include men and women in the same ratio as the workshop participants. Although the number of minority participants is small, as it is on this campus as a whole, when possible, persons of color were also included in the sample.

To preserve confidentiality, we do not identify the specific disciplines represented in the interview sample, but the disciplines represented in the programs and cohorts that were evaluated included the natural sciences, engineering, social sciences, humanities, and business. The interview sample includes primarily tenure-track faculty from academic departments, who are the main target of the LEAP interventions, but some came from other campus units and/or held other types of appointments. Our interview sample spans a range of disciplines and academic work settings that is similar to that of the overall participants. The ADVANCE program is targeted at the STEM fields; of our interviewees, 57% were from STEM fields.

An additional interview sample, the "Circle of Influence" sample, is being developed from reports from the LEAP leadership team on multiple participants and key administrators or leaders of alliances developed, and from snowball sampling based on interviews with other participants and Circle sample members. Findings from the "Circle" interviews are not included in this report.

# Findings

## III. Immediate Outcomes: Feedback from Post-Workshop Surveys and Focus Groups

In this section, we discuss program outcomes as reported immediately following the leadership and coach training workshops. As we have noted, the surveys were primarily designed to provide useful formative feedback to the workshop designers, but we summarize here the survey findings that also provide summative data. Details of the survey responses for each workshop were provided in individual reports at the time of the workshop, as described in the Methods section. In the following discussions, we report the number of responses to particular survey items (n), which does not always equal the total number of surveys received because of differences in survey items from cohort to cohort and because some individuals did not respond to every item.

### A. Characteristics of Workshop Participants

Demographics of the workshop samples are included in Table 1 in the prior section on the study samples. However, some survey items addressed some of the characteristics of workshop participants, including their previous experience with the type of training offered and their motivations to attend. We discuss that data first.

### 1. Assessment of Previous Training

Workshop participants provided information about similar training they had received previously. This question was not asked of two groups: the advanced leadership training in June 2003; and the multi-session coaching workshop in fall 2002. For all other workshops, 25 individuals reported having received no previous training similar to that covered in the workshops, while fifteen individuals reported prior, similar training. Thus the leadership training does seem to be meeting a gap in faculty development overall. Moreover, even though some participants had had previous exposure to such training, they sought to participate in the LEAP workshops as well.

### 2. Motivations for Participating

Participants were asked about their motivations for attending the workshops. The most common responses from those attending the leadership workshops included "learning leadership skills," "time management," "conflict management," and "networking/meeting others." Additional motivators included:

- preparing for an upcoming leadership position,
- learning better research skills,
- the stipend,
- women's issues,
- recommendations by others, and
- tenure skills.

These responses closely parallel the responses about motivations given in the interviews, with a desire for gains in skills perceived as career-enhancing comprising the strongest category. Recommendations by others, interest in the issues addressed by the project, and the stipend were also parallel to motivations cited in interviews.

For prospective coaches attending the coach training workshops, the primary motivators were "meeting others" and "giving back" to the campus community, again these responses were very similar to those recorded in interviews.

## B. Workshop Outcomes

## 1. Overall Response

One question near the end of the survey can be used as a broad measure of overall workshop effectiveness as seen by the participants. Survey respondents were asked to evaluate whether the workshop "fully met expectations," "somewhat met expectations," or "did not meet expectations." Across all introductory and advanced leadership workshops, responses were strongly positive. Of 48 surveys analyzed, 23 reported that the workshop "fully" met expectations, 21 responded that it "somewhat" met expectations, and two wrote that the sessions "exceeded" expectations. Thus 96% of all responses about the extent to which the workshop met expectations were positive, and 52% highly positive. Only one individual felt that the workshop did not meet his/her expectations, and there was one non-response.

Coaching participants reported differently than did leadership participants about whether the workshops met their expectations. Because the fall 2002 workshop was held as a series of sessions over a period of several weeks, with each separately evaluated, not every participant responded to every survey. Here we report findings in terms of total number of responses from all surveys returned by coaches. Thus, most responses refer to a single session rather than a full multi-day program. Out of 24 responses to this question, twelve responses indicated that the session "fully met" expectations, seven that expectations were "somewhat met"; and one that "expectations were not met." Four respondents reported not having any expectations of the workshop. Again, these are quite positive, with 79% of responses positive and 50% highly positive.

Another survey item can also be used as a summative measure of overall effectiveness for participants—whether participants would recommend the workshop to others. Every participant who completed the survey reported that they would recommend the workshop to others.

## 2. Benefits of Participation

Survey questions asked respondents about the greatest strength of the workshop, and the "most useful" topic. These questions offer information that is roughly comparable to findings from the interviews about benefits from the workshops, because topics that are reported to be highlights of the workshop or that are designated as "useful" indicate what participants have learned that they expect to make use of afterwards.

A comprehensive analysis of all surveys suggests an important finding. When asked about the greatest strength<sup>4</sup> of the workshops, the majority of responses reflected the importance of interacting with others across the campus—a finding strongly corroborated in the later interviews. In each of the workshops, participants recounted that features such as "group dynamics," "interacting with others," or "meeting new people" were the greatest strength. The

<sup>&</sup>lt;sup>4</sup> This question was intentionally open-ended. Asking participants what they thought was the greatest strength of the workshop, rather than asking what benefits they gained from the workshop, allowed them greater latitude in their answers, and often resulted in answers that included both benefits they gained and how the workshops produced these benefits.

importance of networking and sharing perspectives and stories with others was echoed in the two focus groups conducted, as well as in the subsequent one-on-one interviews with participants. That these strengths were also reported as benefits in interviews conducted several months after participation in the workshops testifies to the importance of interacting with other attendees. Moreover, the repeated requests in these interviews for the project to facilitate further networking and social interactions among workshop alumni suggests networking can also be a strategy by which to improve the campus climate. Networking was also a very strong benefit as reported in the interviews; the comparable findings from interview data on benefits of attending the workshops are discussed in detail below.

In addition to the benefits of networking, other common responses about the workshop's "greatest strength" included comments on the content of the workshops:

- providing practical and relevant examples of success,
- the chairs' presentation (for the advanced workshop),
- discussion of "tenure tactics," and
- the leadership model,

and on the conduct of the workshop and the atmosphere it established:

- the learning strategies used by presenters,
- the responsiveness and skill of the facilitators,
- the variety of approaches used, and
- the diversity of individual attendees and of disciplines represented.

Again, these reports parallel findings from the interviews, as we shall see, both in terms of the utility of specific sessions and the positive atmosphere that was established.

Participants were also asked to comment on the "most useful" topics covered in the various sessions throughout the workshops. It is helpful here to separate the responses from participants in the advanced leadership workshop from those in the introductory leadership workshop. For those attending the introductory workshop, the *most* useful topics included:

- leadership styles,
- conflict management,
- time management, and
- strategic life and career planning.

Time management was commonly reported in the leadership workshops to be one of the "most useful" topics covered. This suggests that early-career faculty especially benefit from learning specific time management strategies. In general, these topics parallel the reports from interviewees on the sessions from which they gained specific benefits, in time management and communication skills.

For attendees of the advanced leadership workshop, the most useful topics included:

- the chairs' panel presentation,
- civility,

- leadership styles, and
- "difficult conversations."

Again, these topics are similar to those mentioned in interviews as having lasting impact. It is interesting that communication skills are mentioned more often by advanced leadership workshop participants. In the interviews, some faculty suggested that new faculty were less likely to be in situations that brought them into conflict with others, while senior faculty had broader sets of contacts and more history in the university, both of which led to greater needs for communication skills.

## C. Critiques and Advice

Survey respondents were also asked to provide feedback about the "least useful" aspects and the "greatest weakness" of the workshops, and "what needs improvement." It became evident from the repetition of responses that these questions could be collapsed. The wording of this question was adjusted to ask "what needs improvement." Taken together, feedback included the following suggestions:

- Pick up the pace of the workshop; condense sessions,
- Provide more academic examples,
- Clarify the goals of LEAP,
- Diversify panelists; bring in outside speakers,
- Provide a list of resources,
- Develop advertising or outreach for increased attendance,
- Improve the organization and structure,
- Require a follow-up session.

Several of these suggestions are intended to improve the particular program, and a number of these suggestions were acted upon by workshop planners. Suggestions of a faster pace came from participants in the first two workshops. This suggestion did not appear in subsequent surveys, suggesting that facilitators responded to this feedback and adjusted the pace accordingly. Similarly, the first workshops included speakers from outside higher education who used a limited number of academic examples. The surveys and focus group interviews reflected participants' desire for examples more relevant to their own lives, particularly surrounding conflict management and leadership within academic life. Case studies, role-playing, and scenarios were well-received as workshop methods, but business examples, for example, were not felt to be applicable because of the more explicit hierarchy in an employee/employer relationship compared to faculty relationships. Facilitators again took action to remedy this criticism, such that subsequent surveys did not reflect dissatisfaction with presenters' relevance. Presenters also developed a resource and reading list to share. Follow-up sessions have not been built into the program, but a few groups have reconvened for specific purposes. In section VII, below, we discuss similar criticisms and advice to the workshop from the interview participants, focusing primarily on the content, structure, and timing of workshops.

One criticism that remained relatively constant, however, was participants' sense that the goals of LEAP were unclear. They feel they understood the relationship between its institutional

change goals and the individual change strategies of the workshops and other faculty development offerings. This is a broader critique that addresses the model of change in use by the project, rather than the implementation of particular change strategies. In section VIII below, we discuss in detail participants' critiques of the LEAP approach in general. The issues raised in these critiques include a desire for greater clarity about the project's goals and strategies to achieve those goals, similar to the desire noted by survey respondents.

The topics reported as *least* useful by participants of the introductory workshops included:

- strategic life planning,
- stress management,
- time management,
- Meyers-Briggs Type Inventory (MBTI)/interpersonal styles,
- negotiation strategies, and
- a communications session (unspecified).

For advanced leadership participants, the least useful topics also included the chairs' panel and "difficult conversations." Both of these also appear on the "most useful" list, and respondents were evenly divided on whether these were most or least useful.

With such small samples for evaluation, it is not surprising that idiosyncratic preferences emerged, as in these cases where the same topic was reported by some to be "most useful" and others as "least useful." In instances where there was a predominant criticism or suggestion from participants, facilitators acted quickly, making changes for subsequent sessions, such as in the feedback about the use of academic examples, the pace of the workshop, and increased time devoted to the topic of time management.

Participants also commented upon the length of the workshops. Across all workshops, the majority of respondents suggested that the length was "just right" and that adequate time was provided between sessions. The second and third leadership workshop responses were slightly different with the majority of respondents in the former suggesting that the workshop could be shortened (however, note that the response rate was low for these two sessions). Only one respondent across all workshops replied that the workshop was "too short."

Participants were asked to suggest additional topics for the workshops. These responses also tended to be somewhat idiosyncratic, and the most useful way to interpret them may be as possible topics for "one-off" workshops that LEAP could facilitate outside the longer workshop settings. Some of the responses about other topics to address included:

- how to evaluate others' work,
- more on time management,
- grant writing,
- teaching assistance,
- climate issues, and
- equity and diversity topics.

Advanced leadership respondents also suggested the inclusion of directors of programs and other administrators in advanced leadership training, in addition to department chairs. In the subsequent interviews, participants made numerous suggestions about topics for additional training, but also made suggestions about the model by which the LEAP project is attempting to change the university climate, and how it might be more effective in its efforts. Again, these findings are similar to those discussed below in sections VII and VIII.

In sum, the post-workshop surveys reveal a quite positive response from workshop participants to the content of the workshops and the quality of the facilitation and atmosphere established. The workshops met or exceeded expectations for the vast majority of participants and were unanimously recommended to others as a good use of time. While the interviews reveal additional richness of detail and offer explanations for the survey responses, it is reassuring to find that the survey instrument does capture participant responses with accuracy, as seen by the close parallels between the surveys and findings from the focus groups and interviews.

Having summarized the workshop survey data, we now turn to the interview data. In the following sections, we focus on interview data and mention related findings from the surveys where appropriate.

## IV. Motivations to Participate in LEAP Programs

In this section, we discuss interviewees' motivations for participating in the LEAP coaching program and leadership workshops. While we will discuss other aspects of the two programs, coaching and leadership, separately, motivations are treated together as there is much overlap in what the two groups reported.

It is important to examine the motivations of program participants for several reasons. First, no program can have an effect if people do not participate—program designers need to know what attracted participants to come and what expectations they arrived with, in order to effectively advertise and recruit for the program. Secondly, participants' motivations reveal needs that they hope to have met by the program. In addition to revealing their specific expectations of the LEAP program, participants' comments paint a more general picture of faculty needs and indicate their perceptions of career development opportunities. Participants reported a total of 61 observations about their motivations to participate. When examined together, they reflect a web of interconnected personal and professional needs, ambitions, and concerns.

The motivations reported across the sample can be broadly categorized into four groups:

- desires for strategic career growth, including interest in specific skills and in networking (27 observations);
- recommendations from key figures to participate(14 observations);
- the stipend (7 observations); and
- the desire to "give something back," which includes support for LEAP's principles and goals, and altruistic motives (7 observations).

Six miscellaneous observations about motivations included statements about the general benefits of participating in faculty development programs when they are offered; responses to a direct invitation; and expectations of being able to contribute positively.

Participants reported varied and complex motivations for participating in the LEAP programs, and they frequently mentioned motivations from two or more of these categories. For example, some newer faculty participated both to gain concrete skills that they expected would help their tenure prospects, and for the stipend, or because the program had been recommended to them. As shall become apparent later, participants' motivations largely corresponded to the actual benefits they received from participating, but they are discussed here strictly in terms of what prompted them to participate in LEAP programs.

## A. Interest in Strategic Career Growth

We begin our discussion of participants' motivations with their expectations of the advertised benefits of the programs. Of primary concern to junior faculty is whether or not they will receive tenure. The combined pressures of managing research programs and producing publications, teaching courses, mentoring students, meeting service obligations, navigating departmental politics, and attending to a personal life outside of work make for a challenging load and contribute mightily to the anxieties and uncertainties that many assistant professors experience. LEAP workshops seemed to offer help in balancing these demands.

Nearly half of all observations about motivations (27 observations) reflect a desire for certain skills or benefits that were expected to be useful in career development. Because these skills and benefits were deliberately sought, we labeled them "strategic" motivations. Faculty saw the workshops as offering something that would further their career objectives or meet a particular career need, and thus worth an investment of time. For faculty reporting strategic motivations, LEAP programs represented an opportunity to develop skills they perceived as helpful or necessary in a faculty career. The opportunity to network with administrators and other faculty was a strategic motivation mentioned by a small number of additional participants. Strategic career growth is a concept useful for understanding both motivations and benefits of participation. In the section on benefits from participation, we discuss the benefits of this type that participants in fact gained.

## 1. Skill Development

Many faculty participated in the LEAP programs, particularly workshops, to gain particular skills advertised as addressed by the workshops and viewed as important to faculty career success at a research university. The most common of these skills was improved time management.

...And so when the ad came out for the LEAP program, one of the things that probably first caught my eye was that they said they would be talking about time management skills. And again I never had any tutelage on how to manage my time, but I knew I wasn't very good at it, and you're juggling so many activities.... I felt like I could definitely use any help that I could possibly get with time management.

Respondents sought skills in managing people. Many realized that working effectively with students in a lab setting or mentoring relationship, such as supervising a dissertation, required these skills.

...[I am] sort of this manager now, and nobody ever taught you how to be manager either, and I'm meeting a group of ten students now. Who ever taught you how you could lead

such a group? You have to learn how to do that. And I was hoping that LEAP<sup>5</sup> could provide me with these leadership skills.

... The other thing that I was really interested in were tips for how to run a lab and hire people and that kind of thing.

Others mentioned skills they expected to need as they took on different career positions and responsibilities in the future. The workshops appeared to offer an opportunity both to consider these responsibilities, and to develop the needed qualities to meet them.

I was starting to feel that it was time to learn more about leadership and I was thinking about getting into more leadership roles in—maybe in my department, or in the community. And it seemed like it would be a good opportunity to learn something that would help in those goals, and actually maybe even to help decide if I really did want to be in a leadership position.

...One of the things that I would like to do... in the long-term future is take on more of a leadership role in my field.... I've always kind of felt like I could be a good leader if I knew how.

Such remarks also suggest that the framing of the collective skill set offered by the LEAP workshops as "leadership" skills was attractive to participants, whether or not they were considering formal university leadership positions.

One participant did not know exactly what a new leadership position would entail, but expected that the leadership workshop might be able to help in discerning and preparing for the challenges ahead.

The chair... was just starting to let the department know [that we] collectively need to [find a replacement chair].... [Being chair] was something I'd been thinking about... it was a goal of mine down the road, but I thought, well... um, the timing is not up to me and, I was getting a lot of support, encouragement from other faculty, so I thought, well, okay.... But the more this became solidified, the more I realized, even though I'd been a member of this unit for ten years, that I did *not* know what it was like from this perspective.

Some participants were particularly interested in the communication and conflict resolution skills offered by the workshops. They sought insight into handling political tensions, concrete skills in conflict resolution, and ways to resolve debate in their departments.

I had a lot of concerns for a while over departmental politics and whether this really was a situation that I wanted to be in. It seemed like a very good opportunity to explore some of those issues.

Others were looking for help surviving in the academic setting.

<sup>&</sup>lt;sup>5</sup> Like many participants, this participant uses the term "LEAP" to refer to her specific involvement with the LEAP project—the leadership workshop that she attended. Such usage is common through the data set and in the quotations selected for this report. We have been careful in coding the interview data to distinguish from context, where possible, references to the specific interventions in which participants took part, from references to the overall project with its multiple interventions and activities (about many of which participants may be unaware).

What prompted me to do that was to get some ideas and some ways to try and navigate through the academic system.

Motivations such as these were expressed primarily by participants in the leadership workshops. They are clearly a response to the advertised activities and topics of the workshop, and they indicate that the program was offering material seen as valuable by faculty.

## 2. Networking

A small number of participants from both the coaching partners and leadership workshops were motivated by the opportunity to meet people from around the university. As the following quotation illustrates, the deliberate choice to participate for this reason makes this a motivation that stems from strategic career thinking.

I saw that [a colleague] had done it, and had gotten to know some people in the administration through having done it, and so it seemed like a good way to get to know some people at the university.

Two participants in the coaching program expressed a desire for perspectives from outside their department or discipline. They felt they could get these perspectives from people they would meet in the program.

I didn't have any particular issues in mind. I just thought, "Let me see what happens with this," and just see what this person has to say to me. I just thought it might be nice to get to know people outside my department.

I am in a strange position [in my department]. It would be nice to have connections with someone in outside departments who could advise me. [My coach is] in the position to give me information about development in the university, about the way things work, you know, from a completely different perspective than someone within my department.

While relatively few participants mentioned this as a motivation, networking was reported as one of the strongest benefits received, as we shall discuss in a later section. Thus, unlike the clearly advertised skill development opportunities offered by the workshops, networking was a largely unanticipated benefit of the programs.

## B. Recommendations from Key Figures

As illustrated, many faculty were motivated to participate by their perception that they would benefit from increasing the knowledge and skills they felt to be valuable in an academic career. But many also noted that what actually got them to sign up for the program were the recommendations they received from their peers and advisors. Fourteen observations of this type were made by participants. Most often this recommendation came from a close friend or colleague who had participated in the program previously.

I'm not sure that I would've paid it all that much attention if it weren't for the fact that a colleague of mine had done the program.... When I first got here she was full of advice and that was one of her things that, you know, "You really should do this, and you have to let them know as soon as possible that you're interested, because the list fills up so quickly." ... So the minute I saw an e-mail about it, ...I sent an e-mail ... saying that I was interested.

I had another friend also who did this workshop, and she was very happy and she said, "Just jump at the opportunity to get it," so that's what I did.

Personal recommendations motivated participants to join the coaching program, as well as the leadership workshops.

One of my good friends here in the department is a LEAP coach.... He's the one who recruited me here, he's the one I go to lunch with every day, I'm in his group and so forth.... He told me about the program and he asked me if I was interested in finding somebody like this, and I said it sounds like something I should try, so he got me signed up.

Others reported that their chair or research group director had encouraged them to participate.

My chair sent me an e-mail suggesting that I do it and he said it would be very useful....

The director brought it to my attention. He brought the... little advertisement to me; he said, "You know, this may be something you want to do."

Still others reported that the project director had approached them and asked them to participate in the program.

It sounded like she was looking for more people to do it and so I applied. But it was pretty much because of that personal solicitation rather than because of the advertising materials.

These comments emphasize the value of word-of-mouth recruiting. While fliers, web sites, and e-mail announcements are important in informing potential participants of the opportunities available, word-of-mouth is probably significant in converting this awareness to a decision to attend. While recruiting for workshops is not currently difficult, the pool of potential participants will eventually diminish. Future recruiting strategies that exploit the effectiveness of word-of-mouth recruiting might include alerting past participants to upcoming workshops and asking them to invite colleagues, or asking department chairs and other senior faculty to invite their newer colleagues.

## C. The Stipend

In addition to a desire for knowledge and skills and advice from key figures, faculty also had pragmatic motivations for participating. Several reported that the \$1000 stipend offered by LEAP for participating in the leadership workshops was an important motivation to participate. While the stipend was rarely mentioned as the sole motivation, it was sometimes a deciding factor. Seven observations cited the importance of the stipend to participants.

Honestly, the money was a nice incentive. I don't think I would have done it specifically just for the program itself if there wasn't a cash incentive as well. I thought it was a good idea, but it was a lot of time right at the beginning of a semester, and the only thing that pushed me over the edge to do it was the fact that they were offering money for it.

I think I would have been interested in doing it, but I would say it definitely tipped the balance. I feel sort of bad about saying that but, you know, assistant professors don't make that much money, especially for the Boulder cost of living.

To be totally honest, I might have signed up for it anyway but then probably as the time approached I would have realized that I was really behind, and withdrawn (laughs). But

because there was money (laughs), I didn't. So, you know, I'm glad I went, but I think that's part of why.

Other participants commented that they would still be likely to attend the workshops without the offer of a stipend, but only if the workshops were shorter.

I think I would have attended regardless of whether or not there was going to be a stipend. But I would do that if it were a shorter session. If I have to come in for a week, I think I would [have to] think about doing it....

The role of the stipend is a significant one in considering the future sustainability of the program, as stipends are a substantial expense, and an obvious one to trim when grant funds expire. As this discussion documents, however, the role of the stipend in motivating busy faculty to spend several days at a workshop is clearly important. We shall discuss the stipend again in the section on benefits of the program, and will address in that section the relationship of the stipend to the diversity of the participant group.

## D. Desire to Give Something Back

In contrast to the individual gains faculty anticipated from LEAP programs were motivations that were more intrinsic—based on their support for LEAP principles and goals, and on an altruistic desire to help others. These motivations appeared primarily among senior faculty, including both coaches and senior faculty participating in leadership workshops. Seven observations cited the desire to give back as a motivation.

## 1. Support for LEAP Principles and Goals

Some faculty became involved in LEAP programs because they were supportive of the aims of LEAP to improve the university community and advance women faculty, even if they did not fully agree with the strategies proposed to address those aims. They thought that the conversations the project sought to foster were important ones in which to participate.

...in fact, I'd asked to participate, in large part, because I think this is so important for the university, and because I sense that Tricia is willing to be flexible about things. So I'm not sure that I can tell you that, "Yeah, this is exactly what should be being done," but it seems like the right place to start to me—I'll go that far.

Still others reported a desire to be involved in a broad conversation about changing the climate on campus for faculty.

I've done various things at the campus level and at the system level.... I had my own opinions about whether there even *could* be, realistically, a campus culture that would be supportive. And so to be in that conversation was more interesting than simply being a coach....

Comments like these suggest that LEAP programs attracted a group of faculty who were both interested in the issues the project was addressing and willing to invest their efforts in furthering its aims. We shall address this issue further later in the report, but we note here that this idea surfaced early in the project, while the project was still engaging faculty participation.

## 2. Altruistic Motives

Coaches are distinct from other faculty in reporting this type of motivation. Most coaches were tenured faculty who had already served, formally or informally, as mentors to junior faculty.

Some coaches reported a desire to "give back" or help others in their career as others had done for them, or as they wished others had done for them.

I thought, "Wow, if this can help people avoid some of the traps that I stepped into, that's great".... I really thought, "Wow, this makes a difference in individual people's lives." I see *so* many stressed-out people, and people frustrated by the academy, not knowing where to turn, it just seemed like a really important thing....

Some coaches specifically wanted to make a difference for women faculty.

[I was] mostly drawn to the idea of trying to keep people, especially women, in academia.... In my department it's 20% women, and I'm so tired of sitting at meeting after meeting after meeting where I look around and go, "Oh yeah, [I'm the] only woman again." You know? And it's just wearing. So I'd like women to feel like they can succeed.

One coach related her desire to help newer women faculty to her own experiences as an assistant professor. She told of the difficulties caused by the organizational response to her desire to start a family.

I had a keen interest in the throes of being an assistant professor. It goes back to when I first arrived at CU. I was almost 30 and I was thinking about starting a family. I went to my chair and I said, "How do I plan smartly?" He said, "I don't know. Go talk to benefits." Benefits said, "Oh, you need to talk to your chair." ...There was no place on campus where I could go find out objective information, where I didn't feel like I was conspicuous. And that has since changed, in large part because of the advocacy I think....

(continues) I still remember, at my very first assistant professor meeting for new faculty, hearing one woman say, "Well, I might think about having kids if I get tenure." There's this big emphasis on retention and things—why put people in the mode of having to decide to do one or the other? I think that can become an issue in people deciding to stay on in the academy. So I've always had a personal interest in the issues of, especially women as assistant professors, because of some of the challenges I had to negotiate.

As these quotations illustrate, the LEAP project attracted some good will among faculty and generated interest in the problem that it was addressing.<sup>6</sup> Senior faculty were interested in supporting and contributing to the LEAP efforts. Coaches in particular invested a substantial amount of time in training that did not offer obvious benefits to them. (Though they did receive benefits, as we will discuss later, these were not as obvious up front as were the advertised benefits of participating in a leadership workshop). Faculty are busy people, and their interest and investment are not small contributions. Thus, especially when considering the potential for institutional change, it is important to note that LEAP did generate this interest. It is also important to follow up on whether this interest was sustained.

To summarize the findings on faculty motivations to participate in the LEAP programs, interest in strategic career growth reflects faculty members' need for pragmatic, survival- and success-

<sup>&</sup>lt;sup>6</sup> Later sections of this report discuss some lack of clarity perceived by faculty, particularly early on, about just what problem LEAP was addressing.

oriented skills to help them navigate their careers. The stipend also helps meet a practical financial need of many faculty and was a deciding factor for some. Recommendations from key figures are effective in motivating participants because they combine an opportunity to address participants' underlying needs with some degree of connection with other faculty that they trust to give them good advice. Indeed, the strength and pervasiveness of word-of-mouth recommendation also represents an opportunity for the LEAP program to foster connections among faculty built around the intellectual community that it generates. This community-building potential may make some of the interventions sustainable and may support longer-term institutional change. Altruism is a less tangible motivation that demonstrates good will and interest in helping other colleagues and in solving larger institutional problems.

## V. Benefits of Participation in Leadership Workshops

In this section we discuss the benefits reported by faculty as a result of participating in leadership workshops. Although there is overlap between the outcomes of the coaching program and those of the leadership workshops, the design of these interventions is sufficiently different that we discuss their outcomes in separate sections of this report.

Faculty noted benefits of several general types resulting from their participation in LEAP workshops. In most cases these were benefits to themselves, reported first-hand, but occasionally they offered hypotheses about the benefits to others, or to themselves in the future. A total of 228 statements were made about benefits received from the workshops. These are organized into six general categories:

- Gains in skills, especially time management and interpersonal skills (59 observations);
- Improved networking, including with peers and with senior colleagues and administrators (63);

• Gains in understanding and perspectives, including appreciation of differences for faculty in other departments and for women, and greater understanding of tenure expectations and of how the university works outside one's own department (51);

- Personal gains, especially confidence and a sense of collegial support (36);
- Opportunities to reflect and plan, leading to longer-term views of their own career plans and career choices (7);
- The stipend (7).

Five miscellaneous observations referenced general benefits or posited differences in the degree to which different groups benefited from the workshops.

In the following discussion, we elaborate on these gains, breaking out the sub-categories of gains within the larger categories and giving examples of the ways faculty found to apply them in their work. We also note, to the extent we can discern them, the components of the workshop that led to these benefits, and whether these benefits were explicit workshop aims or unanticipated benefits. The benefits reported from leadership workshops are also summarized in Table 2.

Type of benefit	Number of observations	Percentage of all observations
Gains in skills	59	26%
Skills in managing time and work	21	
Interpersonal skills, including conflict management, negotiation, and applying awareness of differences in communication styles	33	
Miscellaneous skills	5	
Gains in networking	63	28%
Connections with peers as colleagues and friends	26	
Connections with senior faculty and administrators, including a sense of greater access	34	
Miscellaneous gains in "meeting people"	3	
Gains in understanding and perspective	51	22%
Appreciating the varied working conditions of other faculty, understanding how things are done differently in other departments	24	
Understanding the experiences of women, through hearing their stories; deepened perspectives on diversity	12	
Understanding how the university works; gaining a bigger picture of the organization's structure and the functions of people in positions of leadership	8	
Clarification of the tenure process, including specific ideas for tenure preparation	4	
Miscellaneous gains in perspective	3	
Personal gains	36	16%
Confidence in one's ability to succeed, in one's own decisions and choices	17	
Sense of being valued, being invested in by the university	8	
Miscellaneous personal gains: sense of support, self- awareness, mental health	11	
Opportunities to reflect and plan	7	3%
The stipend—as financial support; as a symbol of the worth of participating in the activity	7	3%
Miscellaneous and general benefits	5	2%
All benefits	228	100%

 Table 2: Benefits of Participation in Leadership Workshops

## A. Gains in Skills

We begin with the category of skill gains because these gains were explicit outcomes targeted by the leadership program. Although this category was not the most frequently reported gain, it was a significant type of benefit—a close second in rank, at 26% of all benefits reported. The workshops were designed to develop specific management, or "soft" skills that were likely to be underdeveloped among academics but were expected to help faculty progress in their careers. Such skills were collectively framed as "leadership" skills, and were posited to enable individual faculty to make better career decisions, negotiate more effectively in their departments for their professional needs, participate more effectively in department and committee meetings, and better balance their varied duties. In addition, it was hypothesized that gains in these skills would collectively benefit faculty. For example, if many individuals in a department developed good communication skills, department decision-making could become more efficient and more inclusive, and incivility could be curbed.

As discussed in the earlier section on motivations, many faculty were indeed drawn to the workshops by their advertised focus on developing useful career skills. Time management, stress management, interpersonal relations and conflict resolution were some of the skills featured in workshop announcements and offered in specific workshop sessions.

Consistent with the workshop goals, faculty did report gains in these skills. Participants made a total of 59 observations about gains in skills, which fall primarily into two groups:

- skills in managing work and time (21 observations),
- interpersonal skills, including skills in conflict management and applying an understanding of others' work styles (33 observations).

Five miscellaneous observations mentioned other skill gains, including problem-solving skills, being reminded to actively use existing skills.

## 1. Skills in Managing Time and Work

Many participants, particularly junior faculty, found time management to be a primary benefit of attending the workshops; 21 observations were made about gains in skills of managing time and work. These skills were important because, to be successful in an academic career, faculty must be good at juggling multiple tasks and competing responsibilities at the same time.

Time management is something I try to get a handle on all the time... and it is something I still need a lot of work on, and I am constantly thinking, "How am I going to shorten this? How am I going to set this time aside and not do this, not get distracted?" I'm working on it more than I did before, so it is an on-going, daily thing.... [The workshop] didn't solve everything—I didn't expect it to—but it definitely helped.

Even experienced faculty found the time management sessions helpful.

...[T]here was an introduction to various topics, including time management...we all think we know about time management, how to do it, right? Yeah, right! (Laughs.) I had a lot to learn on that one. That was really beneficial.

In the workshops, participants learned about principles of time management and specific strategies for implementing these ideas in their everyday academic work. They exchanged their own time management ideas, committed to pursuing at least one new strategy, and received

reinforcement in the form of a copy of *Advice for New Faculty Members*, a well-known work by Boice (2000) that addresses many challenges facing new faculty, including managing time to favor high-priority activities. For many faculty, the specific strategies were familiar, or even common-sensical, but it was helpful to be reminded of these strategies, to get ideas from others of new strategies to try, and to be reminded of the importance of making deliberate choices about how to spend their time.

A lot of the time management were things that I already kind of knew, but it never hurts to go through that again (laughs) and get some specific suggestions on how to deal with it.

Interviewees offered specific examples of how they had applied the time management skills.

I'm doing better at trying to work in small amounts of time, if I don't have big blocks of time, to do what I can in ten minutes here, or half an hour there.

I've started getting more serious about managing my time.... Especially on Fridays, I'm trying to say, "Leave me alone." And I'm generally pretty open, "Come in if my door's open," and I've started closing my door. I've started making time more specifically for research and writing.

For some, the workshop reaffirmed the particular importance of writing to their academic success. Even though they already knew writing was key to success, a variety of more immediate concerns seemed to continually displace it in priority, and thus it was valuable to reprioritize writing. Some participants noted that strategies offered in the workshops have helped them make time to write.

The time management skills I learned in LEAP have been particularly valuable. Especially a few strategies they talked about, like when you're having a hard time getting motivated to work on your writing. Because they were saying that one of the things that happens most to junior faculty is that they're not writing often enough. They said, "give yourself a little reward." Write for 15 minutes and then check your e-mail, kind of thing. That sort of strategy has been really effective for me. I've gotten a lot more done than... I probably would've without LEAP.

Specifically, the information about crafting your career trajectory and making writing a priority [was useful]. The Boice book, which I had read in another first-year faculty group that I'm a part of, was—I mean, it's extremely useful advice. It's obvious advice, but it's good to be reminded kind of the primacy of writing for research faculty.

Several participants offered explanations of why time management was such an important topic. One emphasized the varying pace of academe: even though he found the time management strategies offered in the workshop useful, this participant still found it difficult to stay on top of competing demands at certain times of year.

I was doing good for a while. I tried these new things, and it seemed to be working really well, and then at some point I just got overwhelmed with other things. But I'm planning to come back to some of those strategies that they talked about, because they seemed to be working well. It was just at some point when things spiral out of control at the end of the semester, you can't always stay on track.

A second participant explicitly linked time management to leadership: without good time management skills, faculty will not have the time to organize and reflect.

One of the things that *really* got driven home to me, is that one of the most important aspects of becoming a good leader is becoming a good time manager. I don't think that I had really thought about it in those terms before. If you don't have time to do things like organize yourself, just to think, just to relax and all of those things that time management is about, you're not going to get anywhere....

Another participant explained why faculty might not have already developed good time management practices, emphasizing the greater freedom and lack of time structure in graduate school as compared with the broader responsibilities of a faculty member.

It's very easy as a graduate student to kind of be a binge worker, to do nothing for three days and then *completely spend 24 hours a day* writing other days. And it's much more difficult to do that as a faculty member because you have *meetings*, and *teaching requirements*, and service requirements. So it's much more difficult if you were a binger in graduate school, and that worked for you, to change those habits in becoming a faculty member.... I went out and read the book recommended by the person who gave that workshop and, you know, I wished that I had gotten that advice earlier on in my career.

In sum, although time management may seem like a skill best learned early in professional life, and one that might be expected already among faculty, given their extended educations and experience in managing long-term scholarly projects, faculty found these skills helpful and reported making gains that they directly attributed to workshop sessions.

## 2. Interpersonal and Communication Skills

A second important area of skill gains was interpersonal and communication skills, reported in 33 observations. These too were offered as an explicit component of the workshop, in several different sessions with titles such as "Conflict Management," "Facilitation and Negotiation," "Developing Yourself/Strategic Thinking," and "Understanding Your Leadership Style through MBTI Analysis," a session using the Myers-Briggs Type Indicator personality inventory. Faculty gave examples of how they applied what they had learned to situations that required good communication, negotiation, or conflict management skills.

Prominent among the interpersonal skills gained were negotiation skills. One faculty member gave an example of negotiating a solution to a problem, in which she drew on the principles learned in the workshop and some notes she had taken on negotiation.

About a week after the seminar I had a situation where... my student was denied a grant because of some paperwork error. It really was effectively a paperwork error. And so I went in and—with my little notebook open on my desk—made a whole series of phone calls and talked to a whole series of people and negotiated the grant back for my student. And I was *very* much aware that the little notes I had made were *definitely* the things that made me *very* comfortable with doing that process, and gave me the confidence to follow it all the way through and get what I wanted.

Another participant discussed a workshop she was leading, where she used her newly-learned conflict management skills to handle a demanding colleague.

I had eight people from around the country, and one out of eight was my hard case. I really had to pull a lot of different skills together in order to problem-solve, and not be a total hard-nose. I didn't want to come out being inflexible, yet I had to stick to my guns. So, working through compromise, but still not giving up what I wanted.

Others reported that the LEAP workshop motivated them to seek out more training in conflict resolution. Exposure to this subject in the workshop prompted interest and a recognition that these skills could be developed further.

One of the things I did this semester was, the University Office of Employee Development actually has a six-week conflict resolution course. And I took that; in fact I just finished that last week.... The impetus then for taking that came from the LEAP program... it was a *really* interesting course, the one that I took, and as I say, I would *never* in a million years have thought of taking it, if it hadn't been for the LEAP program.

Those who reported gains in conflict resolution skills as a benefit of the workshops were more often senior faculty; few newer faculty reported this as a benefit. Senior faculty hypothesized that this might be because newer faculty tend to have more problems negotiating their authority with students, their role in the classroom, and finding time to do research, as opposed to managing conflicts with other faculty. They had less interaction with other faculty (e.g., in other departments) where conflict might be generated. Early-career faculty who reported gains in conflict management skills support this hypothesis in their comments, noting that they had little opportunity to put them to use.

I guess I haven't had to have difficult conversations....

I haven't really been in a situation where I've had to depend on them but maybe I'm using them subconsciously, I don't know but, that certainly stuck with me.

Another faculty member articulated the importance of developing solid people skills in helping faculty negotiate departmental politics and work effectively with students and colleagues.

I thought the whole program was a good idea, especially in trying to establish yourself at the university.... To obtain tenure, you require a certain level of competence in your—well, in your own scientific skills, but also in your people skills and working-with-people skills. I saw the program as important in helping to work on those types of activities.

One senior faculty member discussed the challenges of working in administrative capacities with faculty. She felt that the emphasis in advanced leadership workshops on communication skills, especially active listening, had helped her do her job more effectively.

Be a good listener... listening for specific things or asking a question so that the answer will give you information... or knowing when somebody is talking to obscure or talking to actually convey information.

While specific sessions on negotiation and conflict management were part of the workshop schedule, another session addressed communication skills less directly. Participants completed the Myers-Briggs Type Indicator (MBTI) personality inventory before attending, and then discussed the results in a workshop session. The MBTI is a personality assessment commonly used in business applications, employee training, leadership training, and marriage counseling, among other areas. This session received both praise and censure in the workshop surveys and

interviews, but was felt by workshop designers to provide important information. Thus they continued to adjust the framing of this session in response to the critiques while maintaining elements felt to be worthwhile. Although this session continued to receive some negative feedback, the evaluation team observed more positive responses after the session was re-framed as a way to understand and respond to different communication needs and preferences. For example, several faculty found it useful to recognize that people have different personalities and working styles, and that they needed to consider these differences in their everyday interactions—for example, with students or technicians in their research group.

My job, day-to-day, is to find out results of people's projects and help them along, but there're some people that I can't do that day to day, I understand, because they don't like to interface that much. And there are some people who want to and will come up to me day to day to participate in that kind of exercise.... It taught me to give certain people space....

Some faculty objected to the MBTI because it over-simplified personality into a small number of fixed dimensions, and we discuss these concerns later in the report. For those who benefited from this session, however, it was useful to be introduced to this approach to interpersonal dynamics. Greater awareness of their own communication style made them better able to understand how others might have different needs or ways of working.

Probably the biggest [gain] is trying to think about how I work with others in terms of my personality type, if you want to look at it that way, and how to try to use that to the best advantage for the whole situation.... I think I've evaluated myself and my performance in some of those settings, and trying to figure out, "What am I doing in this situation? Is it because of my personality type and how I approach the situation?" I think that's one of the big things I got out of it and trying to help, on the whole, working with other people to the best benefit of the whole group....

In sum, participants gained interpersonal skills that they saw as important and useful. As described in the section on motivations, interest in these skills was among participants' reasons for enrolling in the workshops. The findings from the interview data demonstrate that participants gained these skills from the workshops, and have made changes in how they interact with others as a result.

## B. Enhanced Networks

While skill development was an explicit focus of the workshop design and content, networking was a benefit that was somewhat unanticipated by the workshop planners. Indeed, the project as originally proposed had intended to use the face-to-face workshops as a place to develop effective training materials, which would then be placed on the web as an individual, online tutorial—thus removing the face-to-face component altogether. However, immediately and emphatically, faculty reported that the connections they made with other faculty were a major benefit of attending the workshops. In fact, at 28% of all gains, this was the strongest benefit category reported, reported with similar frequency (63 observations) to the skill gains (59 observations) that were an explicit goal of the workshop design. New relationships were built across academic rank and disciplines, and with a range of intensities, from casual acquaintances to strong friendships, and often described as the most salient benefit of having attended the LEAP workshops. From the 63 observations about networking gains in the interview data, we recognize two distinct types of networks:

• networks among peers, especially but not solely for newer faculty (26 observations); and

• connections between newer faculty and senior faculty or administrators (34 observations);

The remainder of the observations in this group (3) report miscellaneous benefits of "meeting people."

The term "network" includes a variety of types of relationships, but we use it to refer to any connection through which people may learn from each other. A networking relationship need not be formalized, deep, lasting, or even important to the individuals involved—though it may also take on any of these characteristics. As we shall demonstrate in the following discussion, the two new types of networks reported served different functions for their participants, with both professional and personal consequences.

Faculty who cited these new connections were clear in attributing them to the LEAP programs. Without these programs, they said, they would not have had the opportunity to meet others who contributed to their emotional well-being and work productivity.

# 1. Peer Networks

Newer faculty in particular reported that meeting others in similar career stages was a major benefit (26 observations). Meeting other untenured faculty helped them to see that they were not alone in struggling to establish themselves. Others, they discovered, faced similar challenges and could offer solutions or at least sympathy.

I think one of the more useful things are the connections with other faculty.... It is really important to me, making connections with people who are going through the same thing.... There are three of us who have gotten together for lunch, and so that's been nice. We're in three completely different fields and yet we can get together and talk about challenges in the various departments.... Establishing those connections, I think, is a really valuable outcome for the workshop—I think that's been one of the best aspects of it.

It was just interesting for me to see what kind of process and experience that the [other] young faculty were going through or have. And I've kept in touch with some of those people, which has been nice.

Developing friendships was important for newer faculty who had not yet met many people outside their department. Several reported that the relationships established in the workshops had persisted and become personally meaningful.

I met people that are the kind of people I really have been wanting to meet and just haven't.

I found meeting all the people at the workshop really helpful and in fact [a particular colleague] is like my best friend. We go back and forth to each other's houses and call each other all the time....

These supportive relationships were particularly helpful for early-career faculty women who were considering career-altering choices such as having children.

I definitely met people there that I wouldn't have otherwise and in particular... I met other people who are kind of in the same life stage that I am. The vast majority of [people in my field] across the country—including at CU—are very near retirement.... I kind of felt like I wanted to know more tenure-track faculty who were younger and had these other influences in their lives. I don't have a family—I mean, I have a husband, but no children—but I kind of wanted to know that there were other faculty on the planet who did. Because most of the people in [my department] are either not married at all, or if they have kids, their kids are grown-up. And they aren't trying to do the whole tenure thing... when they're in this family age. And I'm not there yet, but I probably will be before I get tenure, and I want to know it can be done.

(continues) That's probably one of the things that I have really responded to with LEAP, is finding other people like that there. 'Cause there were a few people at LEAP who had little kids and we ended up talking about that a lot.... It was really valuable for me to talk to them and for them both to say, "Look, you can do this, I'm doing this and it's fine."

For one group of assistant professors, the relationships they forged during the workshops furnished a practical benefit. They established a support group that helped them maintain consistency in their writing. Here the group's activities are described by two of the participants:

One of the things that we did, there were four of us from that workshop, who started the "big, bad, writing policy"—that's what it's called. We check up on each other, a few times a week, to make sure everybody's writing. In the last month none of us have been nearly as good because we've been so... overwhelmed. But we're all checking on each other and as a result, all of us have gotten more done than we would've otherwise. And I never would've met these people [otherwise].

One of the things that I took from the workshop was that I needed to write more... because it's publish or perish... so actually we formed out of this LEAP workshop a small group of four professors and what we do is we mail ourselves writings every Monday, Wednesday and Friday.... This little group has had a lasting influence, I think, at least in my state of mind that I need to constantly be thinking about setting aside time for writing. In fact, I should be writing right now. (Laughs.)

Several participants noted that these connections to others, which they valued so highly and counted as a major benefit, would not have happened absent the opportunity presented by the workshops.

I was building friendships with people who I would not [be able to otherwise]. I think that's important. It's frustrating that, as an assistant professor, not only do you rarely get to know people in your department, even people in the same hallway (chuckles). Just forget about knowing other people in the college... or in other colleges. It's just impossible to get to know people, you're working so hard that it's almost impossible. So, in that sense it was a very nice break from that, and gave me perspective as well as sort of a chance to really socialize with people who were different from me.

There were a couple of people that I knew in the LEAP seminar because we had met at first-year orientation, but even those people I hadn't had that much interaction with by January, because we're off in our own little worlds. So it was still useful to spend more time getting to know them. Those kinds of connections, those kinds of friendships,

wouldn't have developed without having four days of seeing each other all day long and talking about our problems and... really forming that basis for having a future.

These examples speak to the value for faculty of making connections with people who are different from themselves and of having a variety of experiences on campus that make this possible. Though some tenured faculty also reported this benefit, many of the faculty who reported building peer networks as a benefit were early-career faculty consumed with the demands of an academic job. They were so busy meeting the requirements for tenure that they had not taken time or had opportunities to meet people. Some were simply lonely. Thus participating in the workshops contributed not only to their professional development, but to the development of a circle of acquaintances and friends that provided personal satisfaction and helped their development as well-rounded individuals.

# 2. Networks Across Academic Ranks: Early-Career Faculty with Senior Faculty and Administrators

In addition to relationships among peers, the workshops also fostered connections between earlycareer faculty and senior faculty or administrators, a networking benefit noted in 34 observations. Workshops often included presentations or panels by senior academic administrators, including department chairs, the provost, and the associate vice chancellor for faculty affairs. As a result of these sessions, several participants felt they had gained a greater degree of access to administrators, now that the ice had been broken. The following quotations give examples of these new connections.

I've found one of the many benefits of LEAP was showing the link between the assistant professors at the bottom and the higher administration at the top and just putting us in contact—having the president come and speak with us, having the provost there. Because you have this feeling that they're up there and we're down here and there's absolutely no connection between the two. Breaking down that barrier or notion was very helpful [to] knowing that changes can happen.... I'd be much more willing now to send an e-mail to the provost, where I wouldn't even think of that before.

Some of it too is feeling like you have more of a voice. You know, you meet people who are in position to do something and that's nice. And we've kind of kept up with that. Tricia has arranged for us to meet with [then provost] Phil DiStefano a few times. Of course, what kind of impact that actually has, you don't know, but just to have that conduit to express yourself that you normally wouldn't have, it's really a nice thing and certainly you don't have that everywhere.

One newer faculty member felt that the connections fostered in workshops were beneficial for administrators as well as newer faculty.

I think that the goal that came out of the program of trying to maintain contact with the administration is an admirable goal. It's something that will allow junior faculty to be, to at least feel like they're getting their opinions across to administration. Or at least that they are able to reach them to some degree. I think that's a good thing. I think it's a good thing to do from both aspects, for the administration's aspect as well.

Meeting these administrators helped participants understand administrators' responsibilities and functions, and how their administrative role might interact with the faculty role. It also served to

make these people human, instead of faceless bureaucrats. Speaking of a session with Associate Vice Chancellor for Faculty Affairs Susan Kent, one participant observed:

One of the things she did was just explain the organization, the hierarchy of the different positions at the university. It was nice to see the chart and get a better sense of where different people fall....

Just to have a face, more awareness of... everything on campus. You know, how does the campus function? The more I know about that the better off I'll be because I'll know what kind of resources we have.

These comments reflect the sense of disconnectedness from the administration that faculty often feel, as well as their appreciation of gaining some degree of access to those in power in the university.

These examples also illustrate the spontaneous nature of these new connections among individuals. The workshops cannot require or plan for people to bond with each other, but the design of the workshops did provide an opportunity and a structure in which to build such connections: through the intensive program that brought the groups together for four days; through the nature of the activities, in which participants discussed (in a confidential setting) topics and issues that were important to them and sometimes deeply personal; and through the informal opportunities for conversation at breaks and meals provided in the workshops. It is also to the facilitators' credit that they quickly recognized the importance of networking as a benefit to participants and abandoned the idea of changing the workshop format to an online tutorial. The project may still wish to consider alternative strategies for disseminating the materials developed for the workshops. The strength of participants' comments about networking also suggests that the project should continue to seek additional mechanisms for fostering connections among faculty.

# C. Gains in Understanding and Perspectives

In addition to gains in specific skills and in enhanced networks, a third type of gain reported by interviewees was gains in understanding the academic setting and their relationship to it, and new perspectives on the culture and workings of the institution. Participants made a total of 51 observations (22% of all gains) about gains in perspectives and understanding, which we have grouped into four types (with 3 miscellaneous gains remaining):

- A new appreciation of the varied working conditions on campus for faculty (24),
- New perspectives on diversity from women sharing their stories (12),
- Better understanding of how the university works (8), and
- Clarification of tenure expectations (4).

As we shall see, these understandings are closely related to the expanded networks discussed above—often these new perspectives came from hearing how others' work lives were similar or different, or how things looked from a different point of view. However, the understandings are distinct from the relationships that provided them, offering lessons that are applied beyond the individual relationship.

#### 1. Understanding the Variability in Faculty Working Conditions

Although the ADVANCE program targets women in science and engineering fields, LEAP was deliberate in offering the workshops to both men and women from all fields of the university, not just the STEM disciplines.<sup>7</sup> While this choice has been criticized by some outside observers, it is consistent with LEAP's hypothesis of change, that "a rising tide raises all ships." It was also well received by participants, who often commented that the disciplinary diversity of the workshops was a positive feature. The mix of participants gave everyone a better sense of what life is like in other departments across campus, and provided access to perspectives they would not otherwise have heard. A total of 24 observations reflected gains in understanding from hearing these perspectives.

The other thing that I thought was really nice about it was that it wasn't all science people. It was pretty diverse. I mean, there were political science, arts and humanities, and some history. So that was really nice to see how the different departments work....

In addition to seeing things from others' perspectives, having a mix of disciplines provided some safety, in that the environment was quite distinct from the departmental setting, where senior colleagues would evaluate a tenure case or where peers might be seen as competing for limited resources or tenured slots. Participants felt freer to share their concerns in an environment that was removed from their department.

I think it was nice that it was university-wide—that there were representatives from across arts and sciences and engineering, and different fields. Because that was nice too, to get outside of your little box and talk to other people, because sometimes the politics—internally, you may not want to be talking with people about that—but if it's someone external that you're not trying to get their advice necessarily but just to vent, it would be helpful just to have someone who's a little bit more detached....

Moreover, by hearing about the experiences of faculty from other departments, participants gained a better sense of the range of challenges faced by faculty across campus. Of particular value was the recognition that they were not alone in finding it difficult to meet the demands of their jobs—teaching, publishing, service, and mentoring—while maintaining a personal life.

The most useful thing was the sense of perspective. Realizing that there are other colleagues on campus and many of them have similar problems to the problem I have.

I guess sometimes as a new professor you feel kind of isolated and you feel like the challenges that you're facing are just you. Like I'm the only person who must feel overwhelmed by this or that. And so even just to go into that forum and to have them say, "That's very normal. Everybody feels like that."

It was great to see that all the other people had the same thoughts.... [The workshop gave me a] sense of security that I'm not getting behind.... Clearly I am in the same boat as everyone else is.... That sense of security when I come back to my office now means I don't spend much of my time or mental energy [worrying].

<sup>&</sup>lt;sup>7</sup> However, there was a focus on recruiting tenure-track faculty. Although a few non-tenure track faculty did attend, this was by their own request and not by general invitation.

Hearing others' problems provided a sort of "reality check," lowering anxiety levels about the high expectations they experienced as assistant professors. It provided insight into academic politics; a few even discovered how pleasantly isolated they were from such politics. While it was helpful to know that certain problems were common to all, several participants realized their good fortune, discovering that conditions were better for them compared to faculty in other departments.

The most useful thing for me was the day we did... "Difficult Conversations" and people went around and talked about the difficult conversations that they were about to have. And I realized that my department is really nice (laughing) compared to [theirs]. So it was very enlightening about the university in general, to hear all the problems that people have had which I haven't had.... It shed some light on university culture. (Laughs.)

Hearing the stories and the input of all the other people in the workshop, made me realize that my trials and tribulations are—I'm not alone, and I'm certainly not, you know, I haven't even been mistreated as much as some of my colleagues have been. So... that helped me put things in perspective.

This realization could even be inspiring. For example, upon discovering that his department was not a bad place to work, the following speaker realized that he needed to take advantage of his relative lack of burden.

It was helpful for me to understand some of the difficulties that some of the other assistant professors were going through in other departments, to give me a sense of perspective, based on what I was going through and not to become too caught up in—you know, there were other professors who basically had it really, really bad. Their department chair didn't care about them and they basically had way too many service assignments. So I'm looking at that and thinking, you know, I actually have it pretty good, and I need to take advantage of this time.... So it gave me a sense of perspective that was very useful....

While they did not wish ill on their colleagues, or feel they deserved these benefits more than others, participants making this discovery realized that they were well supported by their department and should avail themselves maximally of these benefits.

Meeting and interacting with participants from other disciplines gave faculty a better sense of what working in other parts of the campus was like and allowed them to reassess their own situation. They learned that they were not alone in their troubles, felt reassured about their own status, and felt more a part of the campus at large. Interestingly, other than in the context of the stipend and in relation to awareness of salary differences, we did not hear negative observations from those who had learned about the differences among faculty and discovered themselves to be poorly treated relative to the norm.

# 2. Understanding the Experiences of Women Faculty

Several participants were struck by how much they enjoyed spending the week with a group composed mostly of women. While the leadership workshop populations varied, all except one of the evaluated workshops—in which the gender distribution was equal—had a greater representation of women than many participants experienced in their everyday environment. For academic women, and especially those in STEM fields, it was a rare occurrence to be surrounded

by other women. Twelve statements reported gains from the experience of hearing the perspectives of women participants.

You get a chance for four or five days to get out of your office, and the exercises and presentations, those are great, but it's almost more the informal discussion that goes on through lots of it. Just the wonderful feeling of walking into a meeting where the majority of people are women. At least from where I am, that doesn't happen. That doesn't happen.

In addition to the opportunity to be with other women, the workshops enabled women to share concerns and feelings in a safe setting where others would sympathize. The previous speaker further explained:

And I know poor Tricia has really had to grapple with this, but [the workshops are] providing a vent for people. 'Cause you can carry a lot of anger and—it's not even so much anger, it's maybe almost despair. And if you get a chance to get that out with people who you're connected with, who you feel safe with... it's wonderful. You don't want to get it out by going down and screaming at your team, although there are times! (laughs) ...And again, here are these marvelous sessions, whether they're two hours or four days, where there's a safe environment for that kind of communication.

Other women could also provide solutions to problems. For example, a young woman professor in the natural sciences had been struggling to establish legitimacy with her students—a common issue for young women faculty who are not treated as authority figures by adolescent male students, particularly in the "hard" sciences and engineering. From other women in the workshop, she discovered a simple strategy that she hoped would help her appear more authoritative to her students.

It was just nice to be with other women... and I noticed they all wore these scarves... and, you know, they looked nicer because they had [them on].... So I came to work [wearing] scarves, "Look, I look much more professional, not like I'm in the lab all the time." You know? ...It was one of those goofy things that you kind of pick up just from interacting with people.... The thing that became evident was that one of the issues facing women faculty is distinguishing themselves from the students. And so that was one way to look more professional and more authoritative was to beef up the wardrobe a little bit... at least on the days that you have to work with 19-year-old males. (Laughs.) I had some who really just tried to question my authority and... they could be kind of rude.

Several women participants reported that it was especially useful to hear women share how they have negotiated busy academic careers. A panel of chairs with several women commentators was mentioned by several interviewees.

Something else that was very helpful from the workshop specifically was one panel that I think all of us rated as being one of the highest. They brought in several female chairs, either current or just past.... I've known all of those women in some context or another from other committee work, but it was just a pleasure to see them again. All of them have been very successful, separate from chairing a department, in just chairing their lives. How do you physically do this and maintain any kind of life? So it was just great to hear of survivors (laughs), not victims.

The panel addressed the demands of academic careers and the strain they can put on health and personal life. Talking to, and hearing from, people who have negotiated these challenges provided listeners with a sense that it was possible to manage this balance and provided specific suggestions for how to do it.

I think one of the most valuable things was the panel that Tricia put together of women department chairs and directors. That was terrific, just hearing them talk about what were the things they needed to learn to do when they started doing this. What are some of the things they *wish* that they had known? That was tremendously valuable.

(continues) Also the impact on their personal lives was really important.... The job is *really* stressful... you get to a certain level of stress and it's real helpful to have people who've been through those same things talk to you about how to deal with it. I just heard at the university diversity summit that women, in particular women in higher positions in the university and women of color, have a much higher rate of chronic and serious disease—cancer, heart problems. And I can see it. My family has really been unbelievably patient with me, but I think they're getting sick of seeing me come home at 9:00 at night. (chuckling)

(continues) It's really easy, in the chair position, to tell yourself that what you're doing is so critical that you can't leave it until tomorrow. And it often is. You are dealing with real stuff that's critical. So, learning to separate the critical from the non-critical, learning to figure out ways to deal with stress, whether it's appointing an associate chair, or other kinds of things I think is important, is helpful. And that was just kind of an accidental piece of that panel discussion that I thought was really memorable.

Several participants noted that men particularly benefited from hearing women share their challenges and successes, as this affirmed the reality of the gendered nature of the problems that women face in academe. In addition, they noted that men's skills and understanding were critical to the project's attempts to change the climate of the institution.

...[A]nd this is something that is really cool about having the guys in there, to make them more aware.

I think it's important that males on campus have the opportunity to participate in this, from the standpoint of the institution moving forward. That it doesn't do us any good if we're raising the awareness and promoting the skills of women on campus, if we're not doing the same thing for men.

One of the things that was good about the leadership workshop, was that we did a number of different projects where we had to sort of work together on silly little things, like we had to build some sort of tower... this idea of promoting leadership as being able to work in a team, and doing it in context where we realized that we had to be sensitive about issues with working with another person. Having men involved in that, as well as women, I think that was really great, a brilliant stroke.... Women are all already sensitized to these kinds of issues, but I think that those guys who took the workshop are just a little bit more aware that this is a thing that really needs to happen, and that there are lots of different styles addressing these kinds of issues.

Just as the women participants anticipated that men would benefit, male participants reported first-hand the benefits to them of hearing women's difficulties through the stories they told.

I was fascinated to hear discussions from the women talking about things that were problems for them, and to hear from their point of view, especially talking to one another. It was clear that there were experiences they'd had that were problems in their career, and you could tell instantly that they made a connection, that this was a problem that a lot of women were having. That was interesting for me to observe.

Even men who considered themselves already alert to gender issues discovered new insights and saw the value in providing a safe space to have these conversations.

I don't know if they learned a lot from me (laughs), but I learned a lot from them. It opened my eyes to a lot of things... having an open forum for discussing things.... I always thought that I was especially sort of sensitive to thinking outside of my own perspectives, and that's part of what I thought might be helpful in something like LEAP. I didn't really—I don't know if I even knew that LEAP was originally designed just for an all-female focus and encouragement. I think I signed up for it and I didn't know about that until later. But I certainly learned a lot. It helps me to—I can't even quite articulate what it is that I learned except that there are different perspectives that I need to be aware of all the time....

Indeed, this quotation speaks to the benefit of making diversity everyone's issue and not solely the responsibility of a few individuals charged with this goal. Taken collectively, these quotations also highlight the importance of unplanned benefits from the workshops. The workshops offered the opportunity to interact with the panel of chairs, or with a group that happened to be mostly women, but could not specifically anticipate the particular gains that individuals would take from this session. Rather, the inclusion of such activities assumes that there will be some value from this perspective, though the particular value may vary from session to session and individual to individual.

## 3. Understanding How the University Works

As we noted earlier, a benefit, particularly to newer faculty, was a sense of increased access to upper administrators. Participants also learned concrete, useful knowledge from the presentations made by these people with a broader perspective on the university. Several newer faculty reported that they gained from the workshops a better sense of how the university functions—how the university is organized, who occupies university leadership positions, and what their functions are.

...[T]o have a face, and more awareness of everything on campus. You know, how does the campus function? And the more I know about that, the better I'll be, because I'll know what kind of resources we have. Mainly human, not financial, but mainly human resources.

Several faculty specifically cited the presentations of Susan Kent, then Associate Vice Chancellor for Faculty Affairs, as being particularly helpful in understanding how the university works.

Having a couple of meetings with Susan Kent... has helped me to understand a lot of things much better than I did before. I thought that was a really valuable part having her at LEAP.

One of the things she did was just explain the organization of the hierarchy of different positions at the university. It was kind of nice to see the chart and get a better sense of where different people fall....

Understanding the organization of the university and the functions of various university offices and officers gave participants a better sense of the "big picture" on campus. While this benefit often came through the opportunity to meet senior administrators, the knowledge gained from these people is a separate benefit from the sense of access to them, discussed earlier.

## 4. Clarification of the Tenure Process and Expectations

The assistant professors in the introductory leadership workshops were universally concerned about tenure and promotion: the process, the expectations, and the differing messages they heard about both. For some in this group, a benefit of the LEAP workshops was a better understanding of how to prepare for reappointment and tenure. Four observations mentioned gains in understanding the tenure process. For a few, this included specific, practical advice about how to prepare a tenure case.

The sessions for me that were the most useful were the tips on how to prepare for going up for reappointment and tenure and that kind of thing... do this, that, and the other. Keep track of this, that, and the other, and plan. So I've created a tenure file on my computer where I'm keeping track of stuff....

For others, gaining a broader perspective on the tenure process was most valuable. Some lacked a solid grasp of the tenure expectations in their department or had specific concerns about their department or the role of an individual. For them, it was valuable to hear a high-ranking administrator speak about tenure criteria at the college level. For example, one faculty member had received different messages from successive chairs in her department. She was reassured to learn how the checks and balances in the tenure process at the university level could address possible idiosyncrasies in the point of view or past actions of an individual in a position of influence within the department.

It was great when they brought in the VCAC<sup>8</sup> chair to really sit down and just get down to brass tacks about what it means [to get tenure]. And also on a broader university level, because that's the other thing that comes out, is that... one individual person may have a certain goal, but the university as a whole, they're still going to carry you one way or another.... So [the fact] that they can overrule this other person is nice to know.

Some speakers were uncertain about the extent to which a short-term intervention such as the LEAP workshops could affect a career path that had evolved over six or seven years prior to tenure. Although they wondered whether the workshop advice would actually make a difference to participants' tenure success in the long run, they still found clarification of tenure expectations to be helpful.

I think most of us who are just starting out are not thinking quite that far in advance, so it's a little hard to speculate about what the effects might be... years from now. But I do

<sup>&</sup>lt;sup>8</sup> VCAC refers to the Vice Chancellor's Advisory Committee, a campus-level faculty committee that conducts reviews of tenure, promotion, and reappointment cases.

think LEAP—and a number of other programs—has at least helped me understand kind of what the "rules of the game" are if I want to try and get tenure....

It should be noted, however, that the number of comments focused on tenure processes was small. Moreover, some participants suggested that tenure processes should *not* be the focus of faculty development opportunities offered to junior faculty members. This speaker raised a concern that focusing too much on tenure could raise anxieties and undermine productivity.

I think if you're not careful, they can instill a sort of neurosis, right? I came in with another junior faculty member who wasn't able to go to LEAP, but when we came in and we're sitting in all these workshops together, it's like all we're about is tenure and publishing, and it kind of induced a little bit of like neurosis about it. And at some point you had to say like, "Hang on, this is what's going on here," and it's counter-productive. So I think that these kind of workshops have to balance reassurance and just kind of reproducing anxiety. 'Cause too much information can be bad as well.

A second participant advised keeping the emphasis on development of a meaningful scholarly program—the longer-term objective that would enable faculty to have a productive and rewarding career—rather than the short-term details and politics of the tenure process itself.

...Keep the focus on having a meaningful intellectual life, not on making tenure. Tenure should be a byproduct of a rich, engaging, meaningful intellectual life, not the goal.

In sum, these comments indicate that a broad understanding of the tenure process was felt to be helpful. This can be presented in a manner consistent with the general workshop framework of leadership and career planning. Details about preparing a tenure case were helpful to some, perhaps particularly those receiving little advice in their departments, but may be offered as a separate session, or as written or on-line materials, to meet this need without overemphasizing the "rules of the game" and generating anxiety.

# D. Personal Gains

Respondents also reported gains that do not fit neatly into the above categories. They are neither specific skills nor new understandings. Rather, these gains reflect internal changes in how participants feel about themselves and their work, and in how they see themselves as professionals. Collectively, we refer to these as "personal" gains, reported in 36 observations (16% of all benefits). Personal gains included growth in professional confidence and a sense of being valued by the university. Notably, gains of this type were not reported as immediate outcomes, but stemmed from both the workshop discussions and later reflection on them.

## 1. Increased Confidence

In 17 observations, participants reported that they felt more confident in their professional capabilities after attending the workshop. These were not increases in general self-esteem, nor gains in confidence in their intellectual ability, but directly related to workshop topics: gains in confidence to make appropriate career decisions for themselves and communicate them effectively to others, and a sense that their decisions were valid, defensible, and grounded in reflective self-knowledge. For example, several participants expressed confidence in their ability to decide when to decline increased responsibility.

This is another thing that I took out of LEAP: I'm getting much better at refusing service. And that's a very difficult thing for [people in my discipline] to do because most

of us are in the profession because we like service... and I do still like service and I do a lot of it, but I'm getting much better at saying, "No, I can't take on anything more, and if I'm going to take this on, here's what I need to give up." We'll see how long it lasts. There's one committee in particular that... they tried really hard to get me to take this year and I refused. And they are going to try even harder next year and even harder the year after that, and we'll see if I can last until after my tenure review. I don't know if it's going to work or not. (Laughs.)

What LEAP basically taught me is that I need to be aware of my capacity, what I can handle, and if I cannot handle it, delegate it or organize something so that things will move on.

Another participant, a tenured faculty member, described her response to a request to take on a new leadership role in her department.

He did ask me to do it this year and I said no. And in part, I said no, this year, because I have a sabbatical coming in the spring semester, and in part because... you can say no, it's okay. So I said no, and it was just fine. (chuckle) You know, the sky didn't fall on me or anything. I'm writing a book and I want to finish the book in the spring. So I felt that my reasons were justified, and lo and behold, everybody else did too.

Negotiating for resources was another area of difficulty that the workshops helped to address. Faculty did not know whether they should negotiate for what they needed, and if so, how to go about it. The following speaker left the workshop feeling it was acceptable to negotiate to improve her situation.

This is one of the ways in which I was really weak when I first got my job—I didn't negotiate salaries, I was told it wasn't really negotiable. And now I hear that you should never accept [an initial offer] (laughs), but I didn't know that at the time. This is another thing that LEAP has helped me with, where I feel like I really can push people on things to see where it's going to go and I'm not going to offend them by trying to negotiate, and that it's okay.

For some participants, this increased confidence validated their own work style, career priorities, and even their choice of research topics.

And I've found that that experience has given me a whole lot of support to use techniques that I otherwise would not feel terribly comfortable with. Also, I got backing that I need that the way I want to handle this *is* okay. I don't have to handle it in exactly the way that someone else has advised me to do. There *is* a wide range, and the way I want to do things is acceptable and possibly preferable, given some certain circumstances. So it's given me quite a lot of perspective in what I was doing, what I was doing *right* already.

A second participant spoke of the combined effects of attending the LEAP introductory leadership workshop and a second career development meeting offered by another program.

Even though they were not intended to validate anything, I felt much more confident moving into the academic year having had a fair amount of, "Step back, let's talk about this, before you get into the minutiae." I don't know if LEAP ever articulated that as sort of one of the benefits of it, but—this was certainly something I didn't put in the evaluation because [the evaluation] happened right in the moment—but it was several months later I realized that they both gave me just that little boost of self-confidence to go, "Okay, it's a scary world," and especially with all these resignations and stuff.... But I did feel like I had tools then to... be more successful than just floundering.

Incidentally, this comment also points out the benefit of investigating workshop outcomes at some distance from the workshop as well as at the end of the workshop, as some benefits are not realized immediately following the program.

One woman described how the workshop had empowered her to establish the "classroom self" that she wanted to present. She wanted to have her students use her first name, but she also believed that women faculty thus ran the risk of undermining their own authority. She was inspired by then-CU President Elizabeth Hoffman's presentation to assert her choice to use her first name with students.

Having Elizabeth come in was fabulous. And this is the biggest thing I got out of the seminar I think, this is the empowerment kind of thing—was that earlier during this time we were talking about some of the issues that one deals with as a woman and how you're perceived.... [A woman participant] talked about how in her class she will not do the first-name thing because she feels that it erodes her authority in the classroom.... She feels she has to do that, being a woman.... Maybe if I did that I would have less problems dealing with students in the classroom. But I don't want to do that. It isn't how I am or how I want to be. And ... Elizabeth... talked specifically about the first-name thing. She's on a first-name [basis] with everybody, all the legislators that she deals with... it helps her make the personal connections that she feels is more important and works for her. And so what I got out of the conversation is that you don't have to necessarily change how you do things because you're a woman, nor should you. You should find ways to have it work for you. And that was, to me, a big empowerment kind of message. Because that's one of the things I worry about—should I do it this way because that's how all the men do it? I don't want to, and I kind of got permission that I don't have to.

In the following dialogue, the faculty member expressed some anxieties typical of beginning faculty about their choice of research topics and whether their work is seen as valuable by senior colleagues.

*Participant:* Somebody was actually speaking to my anxieties and uncertainties. They said they have to publish four or five articles in specific journals. Nobody tells me directly, and yet I don't feel that I can ask explicitly, "Oh tell me, what do you want?" like that. But I'm always thinking that it would be great if I knew.... I mean I almost thought again to myself, "How come seniors can't explicitly tell me *this is it* (banging on table), *this is what you have to do*." So that flitted a lot in my mind actually, when I came back. "Yes, keep going then. What else can I do?"

Interviewer: So confidence in your choices?

*Participant:* Very simple conclusion, but I believe one that could not be reached even up to today if I had not run through the LEAP seminar.

Participating in the leadership workshop helped this faculty member recognize that his decisions were his own to make and feel more confident about the choices he had already made.

Another participant felt empowered to set her own career priorities. She came to recognize that she had control over her own career and could choose to value certain activities for their intrinsic rewards, separate from her goal of getting tenure.

[My career] is not a decision [I make] once and for all about what research I do or how I'm going to behave with graduate students or what sort of time I'm going to put in for this or that. It's more that I am creating my career as I go, and every day I can decide... how much it's worth it to me to really mentor a graduate student or to spend time in a committee meeting. There are obviously non-negotiables in all of that, but I guess I used to think of it as more of a black and white question, that is, "I'm spending too much time with graduate students, I should just stop." And now I feel more like, I enjoy it, they benefit from it, it's part of how I really want to contribute to the culture of academia, by really valuing mentoring and even if it's not rewarded at the end of the year, it's rewarded in the moment with the exchange and interaction.

(she continues) But I did not feel that in the beginning, because I didn't feel I had that privilege to make that choice. So it is a kind of security, and it'll probably be even more pronounced after tenure that I'll feel I can even decide to value that more.... And I would say I do feel more empowered to think about it differently as a result of the exercises and the sort of perspective that the whole week gave me.

These examples demonstrate that untenured faculty share common insecurities about their career choices, job performance, and departmental role—though they do not always feel comfortable in sharing these anxieties with colleagues. The LEAP workshops can help faculty gain confidence in themselves, a vital emotional gain for academic work, in which success depends on the ability to act with a high degree of autonomy and self-direction.

2. Sense of Being Valued

A second type of personal benefit, mentioned in eight observations, was the emotional benefit from feeling valued by the university. Participants reported that because the atmosphere in the workshops was positive and welcoming, they felt that the university cared about them and wanted to promote their careers.

My department is very welcoming, but it made me feel welcome by the whole school....

It was a very supportive atmosphere that I really appreciated....

In addition to the positive atmosphere, they felt valued because the university was spending time and money to help ensure their success.

And the second thing I really appreciated about it was the sense of CU putting some resources into me and my career. That was a great feeling.

Others appreciated the sincerity they saw in the project's efforts to help faculty develop their careers and be successful.

I was really impressed by what I perceived as a real desire on the part of organizers and the faculty who were there to improve themselves, to improve the programs, to help people get the most out of their work experience and their research....

I really have the sense that they care.... They really want you to think about your career and it's to make your life better, and so it's really wonderful. I actually told a lot of

people about the program. It's something that I really appreciated and I really think that the program should go on.

Finally, other personal benefits mentioned by participants (11 observations) included greater awareness of their own capacity to handle competing demands; a sense of support by fellow participants and the LEAP personnel; and improvements in mental health as a result of these feelings of support.

That emotional gains result from the workshops is a finding that highlights how emotions are often downplayed in academia. Faculty have insecurities about themselves and their work; they may feel isolated and lost in a large research university, especially early in their careers as they are trying to establish themselves. The examples above highlight that a relatively small intervention can make a larger impact on faculty attitudes toward their job and sense of belonging to the institution.

## E. Opportunities to Reflect and Plan

Another type of benefit to workshop participants was the opportunity for career reflection and planning, both within the workshop and afterwards; seven observations recorded such benefits. Attending the leadership workshop helped participants to better appreciate the requirements of a successful academic career and to "see down the road" to plan their career. For a few, the insights gained in the workshops led to action, as we are discovering in some of the second-round interviews. At this stage, however, the benefit was less tangible, described more as a changed understanding about oneself and one's future options.

[The workshop] made me look forward in time at my own career and where I am going with this.... I had done some considerable thinking over that weekend after LEAP about, "Where do I go from here?"

I think it's always useful to take time off for a little bit of navel-gazing and thinking about what we're doing and how we do it. I've done some of the... FTEP [Faculty Teaching Excellence Program] seminars on teaching and it doesn't matter how confident or unconfident I feel about my teaching, I think it's always a good idea to share ideas with other people from time to time.... So, regardless of what the content of the LEAP seminar was, I would've found it useful just to have that time off from everything else to sort of stop and reflect.

It was great to be able to sit down and talk with people and just think about next steps and how to manage what can really feel like an unmanageable set of responsibilities and expectations.

As a result of such reflection, some participants were able to put their finger on troublesome issues and identify strategies for dealing with them. They developed a more clear view about job expectations, their personal priorities, or identified areas where they needed to further develop.

...My sense coming out of it was that we have a lot more choice in terms of how we're going to spend our time than we sometimes see it.... By the end of the first day I was more freaked out than I was going in, but by the end of the whole week I felt like, you know, sometimes we run around saying we have to do this, we have to do that, but actually if you really kind of... draw some lines between what the actual expectations are at the university versus what you're thinking you have to do, that can really help with sanity.

The workshop actually caused me to examine, to take a sit-back role and examine where I was and where I was going and where was there room for me to grow and use my skills at CU.... In looking out into the field, what that 360-degree view made me do is assess where I needed some more skill sets, where was I going to get them. So it was very useful.

Some participants found the workshops to be a safe space where they could discuss personal issues with people outside their department, with whom they were not in a power relationship. One participant offered insight explaining why the workshops were a low-risk environment for this type of reflection. She spoke of her desire to have a family and her concerns about balancing family life with the demands of an academic career:

It's funny because I think about this a lot, but I don't really talk about it that much until I go to things like LEAP or this meeting or that women's symposium and then... it's like the first thing on my mind, and I don't know, I'm not really sure why that is. I guess maybe because there are other people around who are thinking about the same thing.... I don't talk about it at work 'cause I don't really feel like it's a safe place to do that. And I guess because a lot of these times we're talking about my future as a faculty member and when I think of my future as a faculty member, I'm thinking of kids being a part of my life. So, I guess that's why.

For such participants, the workshops presented an opportunity to take a week away from their usual routines to talk and think about their careers with other, supportive but disinterested colleagues. This benefit was independent of the content of the workshops.

For some, the workshops prompted thinking about the institution and the possibilities for change. The workshops were billed as a forum in which to discuss institutional change. Some faculty found that workshop conversations gave them a better sense of what changes were needed at the institution, and how to go about achieving them. As the following quotations from two introductory workshop participants show, even pre-tenure faculty were looking ahead and viewing themselves as playing a role in the institution's future.

I think one of the things LEAP has helped me do is to kind of identify how that change might happen. Even if it's not something that's likely to happen now, helping me understand what mechanisms... can have an effect... will help me to know what sort of mechanisms to pursue when I'm in a position that I can make a change, which for me is likely to be sooner than for many other faculty.

One of the main things is how to be satisfied with small gains and not try to expect, you know, leaps. (Laughs.) Pun intended, I guess—but not to expect big changes. Make small strides to achieve your long-term goals... just using the philosophy that small gains are important and seeing in the long term as opposed to short term.

While such comments were not frequent, they highlight the potential of the program to develop leaders who have thought carefully about the ways they might accomplish change. Analysis of the second-round interviews will provide an opportunity to discover whether any of these future leaders were able to put their strategic ideas to use. We also discuss later in this report the issues raised by these quotations about participants' views of the possibilities and mechanisms for change.

## F. The Stipend: Pragmatic Benefit and Symbol of Value

Earlier in this report, we discussed the importance of the stipend as a motivation to participate. While it was not commonly the sole motivation, the stipend was sometimes crucial in tipping the balance in participants' decision to invest the time to attend the workshop. This motivation was echoed in participants' reports about the benefits of attending. In seven observations, participants reported that the stipend was an important benefit to them of attending a leadership workshop. We note that, when combined with the observations on the stipend as a motivating factor, eleven different individuals discussed the importance of the stipend, or nearly one third of the interviewees from leadership workshops (coaching participants were not paid a stipend). Most, but not all, raising the stipend were assistant professors.

In general, faculty who reported the stipend as a benefit were early in their careers, earned the sole household income (perhaps as single parents), and worked in lower-paid fields within the social sciences and humanities rather than in the higher-paid STEM fields.<sup>9</sup> For these faculty, living in Boulder on the salary of an assistant professor was quite difficult. Many were just beginning to pay off their student loans, which were sometimes substantial; others had additional debt incurred during graduate school, especially if they began graduate work as an older student. Some felt compelled to teach in the summer to stay afloat financially, but this Catch-22 impinged on their ability to concentrate on the scholarship crucial to their tenure prospects.

Insufficient salaries were reported by these faculty to be a real problem. The workshop stipend would not be so important to them, they said, if they were better paid.

[The stipend] was pretty important. My salary is not high. Taking a week off is a big deal. So it mattered a lot to me, personally. I did hear somebody else in the LEAP program say it did not matter at all to him.... I generally know what people in other departments make, and just based on what department that person was in, I'm guessing it was because his salary is way, way higher. So my guess is that for people who don't make that much, the stipend's pretty important.

I would have spent the time whether I got the money or not. I don't know that I would say that for everyone. Most of my colleagues, tenured and nontenured, are teaching summer school. And they're doing that to supplement their incomes.

One participant from the engineering school estimated that his salary was 30% higher than that of a counterpart in the social sciences or humanities. Although the stipend was not personally deciding for him, he spoke to the importance of the stipend for faculty in less well-supported disciplines.

The humanities professors really need the stipend, whereas some of us—if someone had asked me, I would've just declined the stipend and just attended anyway, because I was more interested in what I could learn from the time management, leadership—you know, any sort of skills that I could pick up.... But I did bump into someone recently who was also at the workshop who told me that that was really an important part of why they [attended]—and I was surprised, because I didn't realize that was the motivation at all. So it may very well be important to some people, the stipend.

<sup>&</sup>lt;sup>9</sup> These patterns, at CU and nationally, have been studied by Marschke (2004).

The stipend also functioned to enhance other benefits of the workshops. Participants felt they had to take the workshop seriously and commit their time.

It also made me feel that I had to be there every day, because I was getting paid. It made me feel like I really needed to engage and then that meant I got more out of it. So I would say the stipend is a really great use of money.

In addition, the stipend signaled that the institution found them and their careers worthy of investment—that they had a future at the institution. Participants in the focus groups felt the stipend also destigmatized attending the workshop, by communicating workshop participation as a competitive honor rather than a remedial activity.

It also tells junior faculty that these activities are worthwhile. It's not just something that you're doing for yourself. It's really something that contributes to the institution to have you sit and think about your relationships with other people, and your work style, and your priorities. It's so unusual to have that kind of work be recognized with any sort of dollar figure. That was so affirming. It made you feel like, God, the institutions are—the funding institution and the university are telling us with real money that this matters.

Thus the interview data show that the stipend was a real benefit of participation, as well as a motivation that drew people to attend. It was differentially important: for some faculty, particularly those in the sciences and engineering where salaries are higher, it was not important, and they would have come for the other benefits. For several groups of faculty, however, finances were sometimes tight, and an extra \$1000 was very welcome. These participants earned the sole family income, came from disciplines that are typically lower-paid, or were more likely to have incurred personal debt in attending graduate school (often also discipline-related, as in less well-funded disciplines research assistantships were harder to come by).<sup>10</sup> Because of this differential impact of the stipend, some faculty hypothesized that the demographics of the workshops, by ethnicity and class, might change if the stipends were not offered.

I bet more of the people of color and more of the people who come from low-income backgrounds would be less likely to do it if there weren't money. So I bet the diversity of the participants would decline. Even though I know diversity is targeted and encouraged, I bet the actual participants would change, that's my sense.

Our interview evidence suggests that financial issues are a factor in the decisions of certain untenured faculty to leave the university or remain. For all the reasons cited, small financial

<sup>&</sup>lt;sup>10</sup> It has been suggested that financial advising might assist young faculty in these circumstances. While such advice may be useful to some, we do not conclude from our interview data that mismanagement of money is the source of the financial difficulties noted here. Instead, we have some evidence to the contrary: some of these faculty shared with the interviewer detailed numerical analyses of their income versus expenses, student loan interest rates and regulations, and other financial details revealing that they were neither unsophisticated in their understanding of personal finance nor unaware of where their money was spent. Others had professional training in economic disciplines. Although the number of individuals reporting financial stress was not large, money was a significant concern for those who raised it. Their financial situation affected their views of their potential success and likelihood of remaining at the institution. As one interviewee pointedly remarked, "I would make more money as a stripper at the Bus Stop than I do as a professor. I guess I just have the wrong kind of assets." While a discussion of the role of financial issues in the lives of young faculty is beyond the scope of the present report, our data indicates—unexpectedly to us—that it is a serious and real issue for some faculty. We reported on this issue to the LEAP advisory board in February 2005, and we plan to elaborate on these issues in a future report.

rewards like the workshop stipend may play a disproportionate role in overall retention of a diverse faculty, as well as diversity of the LEAP workshop participants.

As we have noted, the stipend is a significant issue in considering the sustainability of the program. Nonetheless, we emphasize its importance to some individuals to highlight the potential consequences for the diversity of participants and equity of access to the program if the stipend is omitted altogether. It might be difficult to find a way to fairly provide stipends only to those who need them, but it might be done—for example, through a (minimally) competitive program for "LEAP future leaders," where participants could attend a workshop with or without receiving a stipend but could apply for one if desired. It has been suggested that the stipend could be maintained by building it in as part of the start-up package for every new faculty that would also carry the message that leadership skills and self-reflective career planning are valued at the university. As this would likely be an unusual provision in an offer letter, such an offer might even aid in recruiting new faculty. If the stipend is abandoned altogether, we strongly encourage careful monitoring of the diversity of the participating faculty, including follow-up with faculty who choose not to attend.

To summarize, in this section we have reported on the benefits of the LEAP leadership workshops to participants. Of the 228 benefits statements reported, over one-quarter reflect the enhanced personal and professional networks built through the workshops, both with presenters and with peers. Another quarter of the benefits statements refer to gains in skills, developed through the workshop content and activities and seen as professionally beneficial for an academic career. Gains in understanding and knowledge were also strong, arising from the content presented in the workshop but especially from sharing of perspectives by diverse participants. Personal gains—especially gains in confidence and a sense of being supported by the institution—were valued because they helped participants to go forward and feel effective in their own decision-making. Smaller gains categories included the opportunity for career-related reflection, planning, and growth, and the pragmatic and symbolic benefit of the stipend. Overall, these benefits show that the leadership workshop is productive in providing individuals with benefits that are valued, lasting, and not readily available from other institutional sources. We discuss in a later section participants' views of how these individual benefits may cumulatively lead to institutional change.

# VI. Benefits of Participating in the LEAP Coaching Program

Participants in the coaching program reported benefits that were similar to those reported by leadership workshop participants. However, the benefits of this program were generally narrower because the program was less intensive and focused on a single relationship. We discuss here the 31 observations about benefits reported by twelve participants in the coaching pairs, including coaches and their new faculty partners. These benefits fell into two main categories, gaining new perspectives and building networks. Six miscellaneous observations about gains from the coaching program included concrete advice received about a variety of issues and observations comparable to the "personal gains" from leadership workshops—feelings of being supported and having one's concerns heard by a sympathetic listener.

These benefits were not necessarily symmetrical—the junior partners tended to report benefits of new perspectives gained, for example—but neither were they completely one-sided, as coaches also spoke of the benefits of interacting with a colleague from outside their department. We

discuss the two main categories of gains below. We also discuss interviewees' insights into the nature of a successful coaching relationship and their thoughts on an issue that has plagued the coaching program: the low rate of participation by untenured faculty.

# A. Gains in Perspective: The Reality Check

Coaching partners (i.e., the assistant professors) benefited from their relationship with an experienced faculty member from outside their home department because this relationship exposed them to helpful alternative perspectives on life in academia and offered practical solutions for a variety of problems. Thirteen observations of this type of gain were reported. The term "reality check" was often used to describe this gain in perspective that could reassure new faculty and help them better assess their situation.

What a coach provides is an outside reality check, and more importantly, a check-in to the rest of the campus....

I think that's the kind of reality check that you have to get by somebody who's seen it operate for a while.

The assistant professors likewise described the benefit of the "reality check." For example, one partner reported that his coach had helped him manage difficult political issues in his department.

I think she thought I was overstating it until it all came out at a college-wide meeting. So I think in a lot of ways the experience I'm having—you know, I'm way off the edge of the standard curve, I'm a person who is experiencing a lot of turmoil. And again, she's still helping a great deal. She's giving that sort of, "Well, it's not worth worrying about that when they aren't worth worrying about...." ... There's been a lot of value in that, like when I should be concerned and when I shouldn't be concerned. She's shot down a couple of things that I was most concerned with, and she's like, "Don't worry about that." (Partner)

In other cases, gaining a new perspective was less specific to a particular situation.

I just thought it might be nice to get to know people outside my department and get other perspectives and that sort of thing. And it was... she's been a great coach. (Partner)

The coaching program is designed to pair senior faculty with early-career faculty from different departments, and often from very different disciplines. In fact, this appears to be how coaches distinguished coaching from "mentoring," which was considered a departmental function (this distinction is not, however, made in all quotations cited). While working with someone outside the department allowed for a greater feeling of ease in talking about challenges or problems, it was also more difficult for coaches to give specific career-related advice, as one individual observed.

One of the things I do wonder about, the LEAP program, by design, you have somebody outside of your department, and sometimes there's things that you bump up against where's there's a little of, "I don't know how that works," and that difference sometimes leaves me wanting more.... (Partner)

This comment demonstrates the need for both an insider perspective, from a department mentor, and the outsider perspective that a coach can provide. In the interviews, participants reported great variation in the degree and quality of departmental mentoring. For those without good in-

department mentoring, the coaching program was not seen as providing a substitute—coaches felt that in-department mentoring was a higher priority and should meet the principle needs of most junior faculty.

She's got a mentor in her department that she really trusts and that she can go to and get honest feedback from. So I feel like she's got more support and maybe doesn't have as much of a need for an outside mentor as [others]. (Coach)

However, coaching was seen as valuable even where departmental mentoring was ongoing and effective.

There is a degree of anonymity and safety, and at the same time potential empathy, from somebody on campus outside of your department in that coaching environment that doesn't exist with a mentoring department. (Coach)

Discussing issues with someone located outside one's own department eliminated the political concerns associated with the tenure process. Coaches tended to express the need for this type of coaching more generally than did partners, who gave specific examples—indeed, coaches were probably more aware of all the ways in which in-departmental relationships could be risky.

From my perspective, and also from what they've told me, I think it's nice to have somebody outside the department, kind of a neutral party who's not somebody who's voting on their case, and yet who understands some of the issues that they're dealing with. I think that's really valuable. (Coach)

If you're being mentored by someone in your department, you know from Day 1 that not only are they mentoring you, they're judging you. They are going to have to vote on your reappointment, they'll vote on your tenure. They may be on the executive committee of the department who's evaluating your yearly performance that will make up raises. They're going to make comments in various settings within the department and potentially within the college, because they could be on a review committee or something like that. If the relationship is good, if you're doing well, than that can only help. If there is a tension, if you falter in their eyes as opposed to your own, than that is a risky situation. If you've got a coach from outside the department and, as possible, outside of a division or outside of a college, you've got nothing to lose from dealing with them. (Coach)

Untenured faculty found it valuable to interact with senior faculty colleagues who had faced similar challenges in their own careers and come through successfully.

Building relationships with people who've gone through something similar and getting them to tell me what they tried when they were in the situation I'm in, and giving me advice on which resources are available... has been really useful. (Partner)

She has two children, so we can talk about the challenges of trying to parent and be a professional at the same time. We spend a lot of time talking about that. (Partner)

Participants also gave specific examples of ways in which the broader perspective of the coach was useful. Coaches provided advice on research strategies, departmental politics, and university resources.

...She gave me lots of good suggestions about things, aspects of my work that I could draw out [during an interruption in my research].... She's like, "Well, you have a very

unique way of working. Write some method papers." Which was very helpful. Or, you know, "It sounds to me, as you're talking about this paper, that this could be broken in half so you could get double the bang for your buck." She's great like that, and helpful. (Partner)

I feel like I've been able to give her some good advice just about how to maneuver through the pre-tenure process, and try to help her interpret what her department chair is saying to her. (Coach)

I had some health problems when I first came here and... she went and did all kinds of searching around to see what kinds of... parental leave things and sick leave things and all the different policies, and... without my asking her to do it, she just had it all at the next meeting. Showing me all my options... it's very impressive. She'll say, "Let's work on this thing," and then the next time I come, she's got all of this paraphernalia and advice and... things she's looked up. So, she works hard. (Partner)

Coaches too valued the broader perspective provided by the relationship.

I like the coach role because it was so interesting to me to see things that are going on across campus or at least to have a perspective that was broader than my department, and even broader than my college. (Coach)

So you get a conversation that helps both people understand the diversity of the campus and doesn't necessarily say that what's going on in the department is right or wrong or their situation is right or wrong. But understanding that, the range of what's possible, allows somebody to know whether they might want to say something to their chair or head of their division. (Coach)

Thus, coaches functioned as "reality checks" for the assistant professor and as knowledgeable guides to resources within the university. Coaches valued the opportunity to learn how other departments functioned and to see life from the point of view of a younger colleague in another field.

## **B.** Network-Building

Coaching participants also reported networking as a benefit of participation, in eleven observations. For assistant professors, faculty coaches counted as connections in their own right—people the early-career partner would not have met otherwise. As experienced faculty with their own campus networks, coaches could also provide links to other faculty and administrators who had information or experience to help solve a problem or clarify options. For example, one partner spoke of a particular problem that her coach helped to resolve, by connecting her with someone who had information and understanding of the relevant policy issues.

On my own, I would never have been able to go and talk to this other person that she recommended.... What happened was she sent an e-mail to this other person who she knew and said, "I think this person should talk to you." So it's not only that it makes the other person more likely to listen, but it also sort of bridges the gap that I probably wouldn't have done myself. (Partner)

Sometimes the coaches helped to make intellectual or personal connections to others who shared their coachee's research interests, cross-disciplinary connections, or personal situations. They could provide suggestions for how to connect with other academics.

...I was able to just talk with her about networking, and the importance of networking, how to network or how to approach somebody that you're not sure that they want to talk to you.... And I was just able to throw out some ideas, like, "Well, why don't you e-mail and see if you can go for a cup of coffee?" And she tried it and it worked and it was great. So anyway they're a lot of little things that I think she found very helpful, just having somebody to talk to. (Coach)

And [she kept] saying to me, "Look, if you feel like you're intellectually lonely, here's a series of steps that you can take which will ease that problem." ...And she had a lot of really good suggestions and it was her suggestion, actually, that I ... invested more in my network outside the university, which was really helpful. (Partner)

Coaches also benefited from the growth of their networks. They made connections with their fellow participants in the coach training workshop and valued meeting others who cared about the same issues.

Every time I see one of those other people, I'm really happy to see them, 'cause I felt like that was a neat experience, and I feel some camaraderie with them.

The coach training workshops attracted people with a common interest in faculty development, mentoring, and building community, as we discussed in the Motivations section. Participants thus saw the coaching workshop group as a place to begin building intellectual community on campus. These reports are similar to the strong bonding among leadership workshop groups.

I like our conversations so much during the training, where I felt like we were a group of faculty committed to this idea of making it part of the culture. We discussed why it wasn't part of the culture and we all took that back to our home departments and it made me more aware of it.

And it's valuable for me too, to make connections with people in other departments. So I like that, and I think that's what they get out of it too.... In the beginning, we talked about building this community here at CU, and I think that's a really important way to do it, to find ways that you can connect across departments. We all get sort of... stuck in our departments and don't get out much.... You just don't get that many opportunities for that, so it's another way to just kind of build the network.

Such statements highlight the potential of workshop groups of all types to become hubs for gathering and developing faculty groups who can tackle other issues and broaden the work of LEAP by reaching a wider faculty constituency. Indeed, the commitment expressed by the coaches to the goals of LEAP was impressive.

If I do nothing else, I think that, you know, three-four hours worth of conversations, is worth all of my participation in LEAP and worth anything that LEAP does.

Even beyond their current coaching involvement, a number of coaches indicated their willingness to contribute further to the project. For example, they were willing to help recruit assistant professors to the program, or just to make contact with them in a less formal manner.

It would be worth another round of [LEAP] sending us out to meet with people informally and say... "Here's this program. You know, if you wanna take advantage of it, you can. If you wanna work with me, you can, or somebody else,"—a sort of recruiting trip.... I think it might be worth it for us to do that. ...I mean, just sending the coaches out, to give us a new set of names and say, "Get in touch with these people," you know, "Go out for coffee with them and see if they're interested in the program." That might work.

Having found a group of like-minded colleagues, coaches wanted opportunities to continue to talk and work with each other through the project.

I think it'd be nice to kinda reflect, because we talked about a lot of stuff. We brought up a lot of stuff in those coaching sessions. And it'd just be kinda interesting to see if people think things have changed at all in three years.

What I think would be beneficial is to have faculty more in the ranks who are seeing some of these issues of assistant professors. Give input on what is needed to make something like this part of the culture.

They wanted to know more about the progress of the project and felt they could provide the project in return with useful input and ideas.

But now I don't know what I'm supposed to do. I mean, am I supposed to... am I going to remain being part of this program? Am I going to be assigned another coachee? You know, it's... I feel like I invested enough time in it that I want something to come out of it, and I don't know that I feel like I've gotten that feedback. ...You know, if I continue getting coachees, then that's a continued way to be involved. ...Because I feel like this is such an important issue, and yet where's it going?

In sum, new networks were important benefits for both coaches and assistant professors. For newer faculty, their coaches provided access to and ideas for making connections with others with similar professional interests or personal situations, on and off campus. For coaches, the coach training sessions brought them into contact with a group of faculty who shared their interest in mentoring and in making the kinds of climate change that LEAP was seeking to foster. Having identified a group of congenial colleagues, coaches sought an ongoing role in the project and input into its future.

## C. Qualities of a Successful Coaching Relationship

Some of the quotations cited in the previous section suggest elements of effective coaching that led to the benefits described. We elaborate further on the nature of the coaching relationship, as described by both partners.

Several coaches described the relationship as somewhat less formal than they had been led to expect in the training process. No-one reported using the "360° feedback" procedure for self-assessment taught in the workshop, for example. More often, pairs met for coffee and conversation.

... It was just more the ability to have conversations with someone and brainstorm.

And I found that in just talking with them, they just want to talk. I mean, they don't want to fix anything, they just want to chat about what's going on, they want some ideas, they

want to know that I've had similar experiences or not. You know, they want a friend that they wouldn't have met otherwise....

Although the relationship was informal, trust was a crucial element. This included both the formal agreement about confidentiality made as part of the coaching relationship, and the specific interpersonal dynamic between the coach and partner.

I feel protected by that promise.... I have a lot of anxiety about tenure, I feel pressure, I'm having a hard time sleeping and, you know, I don't feel like she's gonna go around and say, "This guy's gonna fail, we should get rid of him quick," or something like that. We have a better trust relationship. So I'm willing to tell her most anything that's relevant to our relationship, to our coaching relationship. (Partner)

Partners highly valued the listening skills of their coaches. They reported as helpful when coaches used what they heard upon listening, offered advice but did not push that it be taken, and recognized the kind of response they should offer, whether providing specific advice or just listening to their partner vent. It was also helpful when the partners felt their coaches recognized that solutions were not one-size-fits-all and appreciated differences among individuals and their needs. Coaches likewise expressed their intention to offer this kind of responsive listening.

So to me the key elements of coaching are... listening as much as you can, and then feeding back something that helps provide a broader perspective. It doesn't necessarily solve any problem, but a broader perspective—and then if there's a particular issue or problem and you can help point them to a resource, fine. But, you know, it could be something that you just say, "Gee, you know, take a week off this summer and (laughs) try something (laughs), try not thinking about it for a week."

Coaches felt the coaching relationship would be most useful if established early.

...Hook people up in the beginning.... I think what's worrisome is, if people get into their second or third year, then it becomes crisis mode and then they might see a coach because they're in crisis. But really the first year is when you can help people just strategize to be optimal, or to optimize how they're doing things.

Coaches thus saw value in placing all assistant professors in some kind of coaching relationship, even if it was never extensively used. Their comments on who needs coaching and why some do not seek it also bear on the issue of low response to the program, which we address next.

# D. The Problem of Low Response to the Coaching Program

Although, as we have documented, the coaching program benefits its participants, this program has been undersubscribed, in the experience of its organizers. More coaches have volunteered to be trained than are needed to meet the demand by untenured faculty.<sup>11</sup> No more coach training workshops have been offered, and some trained coaches have not yet been matched with a partner. When this pattern emerged, we began to ask participants why they thought this might be the case. While they qualified their responses by saying that they were speculating about the motives of others—after all, the interviewees were those who *did* participate in the coaching program—many offered their thoughts on the question.

<sup>&</sup>lt;sup>11</sup> We are aware of only twelve coaching pairs assigned; not all of these developed beyond the initial meeting.

Respondents suggested that junior faculty do not have enough time to meet consistently with a coach; have had past disappointments with similar types of programs; do not want to share intimate life details with a stranger; or are concerned about possible stigma attached to asking for help and the supposed inadequacies that this reveals. One coach suggested that the name "coach," with its connotations of youth and inexperience, might contribute to stigma, noting that he himself would not have sought out a "coach." Others suggested that newer faculty might not realize they could benefit from help.

The people who need it the most don't know they need it. And fear of asking for help. I mean, when you're an assistant professor you're just dying inside, but you're just scared to ask anybody for help. Because it shows weakness, supposedly, you know. (coach)

A second source of data also helps to illuminate this issue. When they expressed needs that a coach might meet, interviewees from introductory leadership workshops were asked if they knew about the coaching program. While most of these interviewees had some awareness of the program's existence, they differed on their knowledge of the program. One faculty member was not aware of the program at all. Others knew of the program, but did not know its purpose or details of how it worked.

Leadership workshop participants were also asked if they would be interested in participating in coaching. Their answers reflect both a level of interest and a lack of immediate need to pursue it. One said that he was interested but hadn't had time to follow up with it—he would like to participate, but needed to be asked again. Another participant said she needed to be directly invited in order to participate, but that she had never been asked. A third had been approached about participating, but at the time she felt like she was already "coached to death" in her department and college. She added that, as those other relationships fade away, she might be more interested in the LEAP coaching program now. In general, these responses seem to reflect the issue of importance versus urgency—while coaching may be more important in the long run, other time demands seem more urgent in the immediate term.

It takes time to go and have coffee, and even though it's helpful—even though I know I feel better when I exercise, I don't have time in the day (laughs). But I think it's just one of those paradoxes where the time spent may be well worth it, but when you have a lecture in an hour, you're scrambling to get that ready from one thing to another to another. (partner)

Only one faculty member said that he felt he already had the knowledge he needed to get tenure, so participating in the coaching program would not be a wise use of his time. He characterized having more advice as a case of "diminishing returns."

These comments are somewhat ironic in light of the efforts made by the LEAP program to invite introductory workshop participants to participate in the coaching program. According to the project assistant, information was provided during the workshop and in repeated follow-up messages about the coaching program. Thus it seems that, while lack of information may be a factor, having this information come at the "right" time may be more important, difficult as it may be to discern that right time. It may be worthwhile for the project to advertise the documented benefits of coaching (as seen in this report) and to experiment with less formal versions of the coaching program, whereby newer faculty might interact with senior faculty members from other departments and begin to develop useful relationships—indeed, as the coaches themselves suggest the program might be built. Other examples are discussed later in

this report—for example, a suggested workshop to review junior faculty's curriculum vitae might also function as a way to encourage greater contact between junior and senior faculty members.

To summarize this section, the benefits of the coaching program were narrower in scope than those of the leadership workshops, but were important to participants. Coaching was a positive experience for both coaches and their early-career partners. For partners, the coaching relationship provided an opportunity to meet other faculty and to gain perspectives outside of their often insular home department. Senior faculty coaches also gained new perspectives and extended networks through both interaction with their junior partner and the coach training workshop. By coaching a newer faculty member, they also felt they were helping to support younger colleagues and to build intellectual community at the university. They asked for more opportunities to work on these issues that were important to them and to share feedback with each other and with the project.

# VII. Evaluative Observations and Advice about the LEAP Programs as Implemented

Thus far we have discussed participants' motivations to participate in the LEAP workshop and coaching programs, and the benefits gained upon participating. In addition, participants offered a broad range of more general comments about the programs and about LEAP's overall mission, as they understood it. We separate these latter into two groups: In this section, we discuss participants' evaluative observations about existing activities, as they have been implemented—that is, observations about the project as participants currently encounter it. These include positive evaluations (other than the benefits received, which have been separately discussed) and criticisms. The number of both positive and negative observations is, generally, equally small. We also include participants' advice for refining, improving, and extending the programs within its faculty development model, which accounts for the majority of observations in this section.

In the section that follows, we broaden the discussion to consider participants' observations about LEAP's hypothesis for institutional change and what may or may not be accomplished through this model. Observations of this type include concerns about problems that the faculty development paradigm may not be able to address and advice on how to expand beyond this paradigm. Again, these comments include those expressing approval of the chosen model of change, critiques of the model, and advice and suggestions for extension and improvement that go beyond the present paradigm of the project. In that section, we begin to examine participants' views of the potential for accomplishing institutional change via these chosen strategies.

We begin with the evaluative feedback from participants about their experiences in the leadership workshops and coaching program. We have organized these observations by three broad types: positive comments; critiques; and suggestions for program improvement. Many of these comments address specific program content, activities, facilitation, logistics, and atmosphere—that is, specific observations about the faculty development activities of LEAP in the form in which they have been implemented to date.

We remind the reader that respondents often refer to "LEAP" but really mean the particular program in which they participated—partly because the program *is* their experience of LEAP, and partly as linguistic shorthand. In this section of the report we classify criticisms according to the aspect of the program to which the respondent is referring—even if they say LEAP when they are referring to a specific workshop. This distinction is a bit artificial, in that respondents

do not always make distinctions between LEAP as a campus-wide program and their own specific participation, but the distinction is useful in analyzing what aspects of the program are working or need improvement. In the later section on observations that fall outside the paradigm chosen by the project, the use of the term "LEAP" more often refers to the overall project, as the respondent perceives it.

# A. Positive Feedback about LEAP Programs

These observations are distinct from participant reports (discussed earlier) of direct benefits they received from participating in the interventions. However, the benefits to participants help to explain their overall positive feelings about the workshops, and their positive feelings may in turn reflect some of the processes or aspects of the workshops that helped to achieve those gains.

In the interviews, the number of these general evaluative observations is small; specific feedback about the workshops was offered in the surveys and focus groups and reported to the workshop planners soon after each workshop. Interview responses tended to reflect only the strongest responses or lasting memories. As the survey data showed, most participants found the LEAP faculty development programs to be positive experiences, and additional comments in the interviews reflect this general positive feeling. Participants experienced the workshops as supportive groups in which they could discuss their concerns and problems more comfortably than they could in their home departments; in fact the interviewer heard very few reports of any negative aspects of the atmosphere.

It was a very supportive atmosphere that I really appreciated....

One male participant mentioned that, even though the other participants in the workshop he attended were mostly women, he didn't feel out of place.

Everybody pretty much made it clear that they thought I was welcome and that I'd provided an interesting point of view, that otherwise would've been absent. So I didn't feel unwelcome at all.

Several participants reported that they had recommended the workshops to friends and colleagues, a sign that the workshops were seen as worthwhile. They specifically recommended the program to newer faculty, the population they felt would benefit most from participating.

I have recommended it to several junior faculty women around campus, that they get involved in LEAP, and I've recommended those peoples' names to Tricia.

I think I definitely would recommend it to new faculty. I think it's best to get them started early on, so yes, I would recommend it.

Some participants referred to specific benefits of the workshops as reasons that they would recommend the workshops to new faculty.

I do think that something like LEAP, or the FTEP seminars, are really nice for new faculty, because I had no idea what to expect. And in the orientation one gets the first week they don't really tell you... you know, it's not about how to be a faculty person. It's about rules and regulations. And I do think it's useful to meet people across campus....

I think both because of the networking ability, and the usefulness of some of the information, I would definitely recommend it.

From the coach training workshops, participants appreciated having the chance to discuss concepts and models of coaching and mentoring, although they did not come to consensus on these concepts. They received useful materials—one participant had shared an article on "career anchors" with several people. They also valued that the facilitators had responded quickly to their feedback—for example, reducing the emphasis on business-style mentoring and formal feedback mechanisms such as the 360° feedback process to discuss mentoring more generally.

These comments echo participants' positive comments in the immediate post-workshop surveys. They express participants' sense that workshops provided useful content, generated safe places for sharing concerns and difficulties, and offered ideas and resources for dealing with these difficulties.

## B. Critiques of LEAP Programs

While the majority of participants characterized their experience overall as positive, other comments supplied criticism of the programs or specific aspects of them. As with the positive comments, the number of negative evaluations was small: participants had previously provided detailed commentary on the post-workshop surveys and in the focus groups, and the interviews tended to draw out only the strongest responses.

Some respondents commented that the content of the workshops was not particularly helpful to them. When asked what stuck with them, or what strategies have they used or implemented from the workshops, they reported that they had not found practical use for the workshop content.

I can't say there were really specific things that I implemented....

Such comments did not necessarily contradict the positive comments about workshop atmosphere and supportiveness, nor did they imply that participants received no benefits from attending. One faculty member, for example, explained that while the content of the workshop was not very useful to her, the networking opportunities in the workshop were beneficial.

I found meeting all the people at the workshop really helpful... [but] the actual content of the workshop was not very helpful for me.

One particular workshop activity came up most frequently in criticisms—a session that used the Myers-Briggs Type Inventory (MBTI) (though, as we discussed earlier, some participants also found this activity useful). Several participants criticized the MBTI, saying that it is error-prone and too simplistic a way to understand the complexity and diversity of individuals. The facilitation of this activity was not seen as particularly effective.

...And we ran into a lot of problems with Paige Monahan, whatever her name is. I thought the Myers-Briggs stuff was not helpful and we spent a lot of time on it.... My God, teach me the nuts and bolts of my job; do not teach me about personality types.

I wasn't really interested in MBTI when they mentioned it. As a researcher, I don't trust classifications. [There are] lots of errors.

There was one day where we did this personality-typing thing, and I thought it was really dumb, honestly. You're supposed to rate yourself on a number of different axes and then you're typed into one of four personalities.... I mean I understand that it's important to talk about different ways of communicating, but the whole idea of typing people into four quadrants, I think, is terribly problematic from a sociological point of view.... All the three Asian-American women... ended up in the same quadrant. (Laughs.) But the

quadrants don't say anything about cultural background or anything, they just say you're this type of person, and I just find that kind of... silly.

Others criticized the gender stereotyping that could be associated with personality-type discussions.

I felt like there was just an *enormous* amount of stereotyping going on in that workshop. It was incredible. [The facilitator said,] "If you're having an emotional reaction about your work, go see a female faculty member." [A participant] stood up and just *blasted* Paige for this, "This is crap. Women should not be doing all the emotional work in the department." That wasn't the kind of help I needed.

While many of the participants who voiced criticisms of the MBTI session saw the need, indeed the imperative, to recognize that people have different ways of working, handling stress, and interacting with others, they generally thought that using the MTBI was not the best way to further this realization. That is, the overall topic was seen as useful by these participants, but not the MBTI-based approach.

A few observations also discussed the coach training workshops. Participants recognized some difficulties with the content and "flow" of the workshop that they ascribed to its early developmental stage, particularly in the first-time offering of this workshop.

Some of the sessions were more useful than others. I think because we were the first group through, it wasn't clear enough what training we needed, so we spent a lot of time talking about the necessary training much more than actually getting it. And so I would like to have seen more practice. Once we knew what we wanted, it would have been nice to do more sort of role-playing and trying things and trying to work scenarios and what to do in the situation.

These comments echo the calls from leadership workshop participants for more role-playing and scenario discussions, which they also found effective. A few coach training participants felt strongly that coaching or mentoring could not be standardized—any mentoring relationship was highly personal, and they objected to any attempt to develop a common model for mentoring.

# C. Advice for Improving the Effectiveness of LEAP Programs

Even more than general positive or negative feedback, participants offered a number of ideas for improving the programs. A small number of observations gave advice about the project's organization of the coaching programs. It was important to participants that the project maintain good communication and confidentiality in communicating with individual coaching participants. Coaches wanted to be updated about their status—for example, whether they would be matched with another assistant professor in the future.

Most of the advice was specific to the leadership workshops. These included advice about the time commitment, timing and structure of workshops, and additional topics that would be useful.

# 1. Advice on Timing

Timing was an issue primarily for the introductory leadership workshops. Several participants stated that they would have preferred to participate in the workshops earlier in their university tenure, when it would have made a bigger career impact. They would have had more years before tenure to implement the skills and advice they had gained.

I wished that I had gotten that advice earlier on in my career. For me, I think it would have been much more helpful if I had been able to participate in LEAP my second year here rather than my fourth.

Some of these comments expressed the recognition that the insights shared in the workshops were ones they had reached on their own, but through hard-won experience. Participating in the workshop earlier would have reduced the steepness of the learning curve.

It was interesting because you'd sit there a lot of times and (laughs) you'd nod when they would say how all these things were important. And you'd figured it out, but if someone had told you it initially—like sometimes you'd think, "Wow, it took me four years to figure that out on my own." Whereas, if I'd had this workshop earlier, I would have been keyed into that much sooner and it probably would have been really helpful....

I think I would have benefited from it earlier.... I would have gotten something different from it at a different time. It might have helped me sort of head off some problems. But because I had already dealt with a lot of them... getting to reflect on them later was also helpful.

The latter speaker went on to give a specific example of how the workshop advice had reinforced her prior experience. She discussed a topic raised in the introductory workshops, balancing effort between the short-term demands of teaching and the longer-term demands of scholarly work.

I was teaching a class my very first semester, a brand-new class with students and faces and wanting to learn and you wanting to teach them. So immediately, I felt like the teaching piece became very important to me to do a good job... and then later to see that, in your tenure process, as long as you're moderately okay in teaching, that's okay.... It took me quite a while, I feel, to come back to that realization and to shift some of my focus... so, just those things that they would tell you and some other things as well, it was just nice.

Another example of learning on one's own came from a participant who had discussed his difficulties in managing stress. Knowing that some workshops offered stress management as a topic, the interviewer asked whether a stress management workshop would be helpful to him. The participant pointed out that career stage was an important variable in the potential impact of such an offering.

I don't know, now that I've been at it a few years, but it would have been helpful early on. I just don't know at this point if it would be any more helpful. You know, you learn on your own, and stress is definitely something to have managed.

These examples make clear that the timing of career development training is crucial to its impact on participants. None of the participants said that the workshop was not helpful because it hadn't been offered to them at the right time—rather, they felt the workshop could have been even more helpful had they taken it earlier. More experienced assistant professors found the workshop advice valuable, but had discovered some of it already on their own.<sup>12</sup> Their

<sup>&</sup>lt;sup>12</sup> It is possible that more experienced participants' sharing this in the workshop may have helped to validate the advice for the newer faculty participants.

comments thus reinforce the potential value of offering the introductory workshops to all incoming faculty early in their tenure (at least for faculty in their first academic positions), as has been discussed.

# 2. Advice on the Length and Structure of the Workshops

A few interviewees also made suggestions about the scheduling of the workshops (length and scheduling were also discussed in the surveys). As noted in our discussion of the stipend, the time commitment was seen as substantial—essentially a week out of winter or summer break time that could be used for scholarly work. One interviewee, for instance, was waiting to hear a report from a colleague as to whether the time had been well spent.

I don't know what this, this one-week-long LEAP thing would be like, and also a week is a lot to commit to. So if I felt like it was gonna be a waste of time, then I'd really be disappointed in spending a week in there doing that. So I'll get a frank assessment from one of my colleagues after this week's up and see what he thinks.

A senior faculty member raised a concern about scheduling workshops only during semester breaks, which he perceived as a barrier to attendance by new faculty in his own department. People whose scholarly and creative work takes place off campus (such as science or social science field work, study in foreign libraries, or performance collaborations) were unable to attend at these times.

Some participants suggested that spreading the workshop sessions out over a longer period of time would provide greater potential for learning and absorbing the material and applying it to their work.

If you could have more frequent sessions of—instead of having it for four days, maybe it could be a shorter session and then repeat it six months down the line or something for the same group, you know... so you're held accountable for what you've learned. You come back, reconvene, see if it's really helped you, and what you could get that would help you more.

I think more of a spread-out program in which you're discussing some of those issues over a larger period of time instead of just a week would be helpful. I think that could be useful in terms of trying to reinforce some of the skills that we were working on in the project. I think it's really hard to be hit with a lot of stuff during one week and then, "Okay, go to it." It would be nice to be able to follow up on certain things.

The second speaker also recognized that the many time commitments of faculty are a potential barrier to implementing programs that are spread out temporally. The advantages and disadvantages of the multi-day model he proposed would need to be examined.

Of course, that said, you know, the time commitment for follow-up would have to be somewhat minimum, maybe one meeting a month or something like that would work out, but it's hard to find much time to do.... It would be hard to say, you know—an hour a week or a couple of hours a week, I don't think would work out at all. But yeah, something sporadic might be a good idea.

This speaker's suggestion also allows for a combined structure, with an initial, intensive, multiday session in which the group members connect personally, and then some structured follow-up sessions to develop additional topics, share how members have used the information, and reestablish and deepen the group connection. Such comments also point to the potential of the initial group as a place to continue to deepen skills, develop a collegial spirit and build a community that can take collective action.

## 3. Advice on Follow-up Training and Additional Topics of Interest

Participants were asked to describe their additional wants and needs for faculty development at their current career stage, and to anticipate the needs they might have for the career stages that lay ahead. They suggested that the project offer more frequent, shorter, "one-off" training sessions to develop specific skills or target particular difficulties (perhaps specific to particular faculty career stages).<sup>13</sup> The one-off might fill a variety of roles, offering topics from the longer workshops that are re-formulated for a broader audience who did not attend the original workshop; topics that provide in-depth work after an initial introduction; and additional topics not included in the original program. One-off workshops were seen as appropriate follow-ups to the long workshops, providing both a topic of interest and a chance to get together with the workshop cohort. Others asked for LEAP to initiate more purely social gatherings, such as a lunch table at the UMC.

It would've been beneficial to take particular topics and have mini-workshops on those. I found some of them more useful, the conflict resolution for example. Although, now I've been able to access that outside of the LEAP program.... So, if there were some shorter workshops, more focused workshops... that would certainly be attractive to me.

I think the more specific the better, so that if there was a pickup session it would be very specific. Conflict management, administration of large classes, once again, rules and procedures in the university. I think that would be very helpful.

Many faculty also suggested particular topics for these workshops. These suggestions from the interviews overlap and augment the suggestions made in the post-workshop surveys. Faculty suggestions varied by career stage. For example, several early-career faculty suggested a session on advising and working with graduate students. Other suggestions focused on their needs for assistance in preparing a tenure case and checking in on their progress toward the reappointment and tenure review. They sought both advice from senior faculty experienced in the tenure and promotion process, and advice from newer faculty who had just passed through their reappointment or tenure review. Working sessions on keeping pre-review records and preparing the dossier, sharing of case studies or personal experiences, and opportunities to get feedback from faculty in other disciplines were among the specific ideas suggested.

What I would most benefit from would be something that was specifically devoted to the process of applying for promotion or tenure. And we did do a lot of the details of that process, which was another really valuable thing. But more specific information, or looking at how other people are putting together teaching portfolios or research statements... would be really nice. Like, to have 'before' and 'after' stories from people who have actually made it through, and what worked and what didn't. I'm not sure what that specifically has to do with leadership, but it certainly has a lot to do with promotion and making it through that process successfully.

<sup>&</sup>lt;sup>13</sup> It should be noted that the program of "one-offs" was not as strongly developed at the time these participants were interviewed, as it became later. Many of the topics participants suggested can still be incorporated.

One faculty member had recently completed his comprehensive review, and had discovered in the process that he needed a better system for keeping track of all his professional activities.

I would say that it would be better to have things that allow you to learn how to track what you're actually doing. So, you know, keeping journals, or just keeping ideas on what you've been up to as far as the research/teaching/service axes.... What's the best way to keep track of that? You just don't want to throw everything into a box.

As noted earlier, this session might be best included as a one-off rather than as a component of the introductory leadership workshop, since not all early-career faculty wanted to focus on these details.

Another pre-tenure faculty member suggested a session to assess the curriculum vitae (CV) before a review, in time to catch problems and gain a perspective on how a CV might appear to readers inside or outside the department.

There's one thing... that would be a great thing to do in LEAP. That would be to have an annual CV review with the coaches. Nobody had looked at my CV until I came up for reappointment, and if you wait that long you're in deep trouble. Here's an example... [in the field in which I was trained,] what matters is your book. The book is *the holy grail,* and anything else you do is very nice, but who cares. So there isn't really this huge push towards publishing journal articles. So when I finally took my CV in hand and went to a senior member of my faculty and said, "Look at this, is there going to be a problem?" He looked at me and said, "If you publish one more article in an edited volume I will take you out into a field and shoot you." That is a quote, "Take you out into a field and shoot you." Because I had a book, two volumes that I edited, and eleven book chapters, and in this department, that's like suicide. I had no idea, it was Year 2 and I already had commitments for like three more book chapters and he's like, "*Stop now, don't ever do this again!*"

Her suggestion that this would be a good role for faculty coaches dovetails well with the willingness of coaches to participate in less formal contexts with a larger number of young faculty.

As an aside, this quotation also highlights some special concerns of faculty doing interdisciplinary work.<sup>14</sup> Almost by definition, the disciplinary training and scholarly approach of such faculty are different from the department in which they are hired and thus disciplinary norms surrounding publishing and presentation of scholarly work may differ—the discovery of which may be (as in this example) a surprise to both parties. Our interview data is rich in information on the issues surrounding interdisciplinary work from an unexpectedly wide array of academic contexts; it is an important topic for further analysis and discussion.

While the LEAP programs have placed a strong and well-received emphasis on supporting untenured faculty, an interesting finding from the interviews is that not only newer, untenured faculty feel isolated or unprepared for the future. We learned from our interviewees that as they move into positions of greater authority and responsibility, faculty of all ranks desired more information about the expectations of their new positions, and advice on how to do these jobs well. Their work changed in character, requiring not just scholarship and teaching, but an

<sup>&</sup>lt;sup>14</sup> We reported this need in our February 2005 presentation to the LEAP advisory board.

increasingly broad range of interpersonal and administrative skills. With their graduate education focused on developing scholarship, faculty did not have previous education or training to support these new duties, and reported feeling unprepared for their new professional roles and the changing tasks that accompanied them—more administrative work, more time spent managing others and less time doing things themselves. These new roles took some getting used to and required new types of skills and abilities.

As I've gone through the system for five years now, I see things becoming more—a shift in terms of actively doing research in the field. I'm certainly seeing the transition to more administrative-type duties. Writing proposals over and over, supervising students, less time in the field, more time spent on paperwork, that kind of thing. So I guess training on how to handle that transition, how to move smoothly from actively building instruments in the field to being in more of an administrative, supervisory role, would be helpful.

As they advanced in their careers, faculty were not just attending meetings, but leading them, and they sought greater skills in leading meetings and organizing groups effectively.

One of the things that comes to mind that wouldn't actually be all that difficult to do, I think, would be to have some training in running effective meetings. I think a lot of department business is done in faculty meetings, and if those are poorly led, or poorly managed, or are free-for-alls, which it sounds like there are in some departments, department business doesn't get done very well... and people feel unheard, unappreciated, left out, whatever. And I don't think it's really that hard to run an effective meeting. So I could imagine two-three hours of training for departments that could be really effective.

Associate professors were a particularly interesting group. They wanted opportunities to discuss issues such as how to make good use of a sabbatical to further longer-term career goals or to initiate a change in direction. They wanted to consider and discuss with others the implications of making changes in their work, such as altering the typical 40/40/20 percentage mixture of research, teaching, and service to pursue in depth a particular teaching interest or service role. The following speaker articulated why the professional development needs of recently-tenured associate professors might be both distinct from those of other groups and particularly acute.

A faculty member here told me once (laughs), a long time ago, that they felt like associate professors tend to fall through the cracks in some ways. That was a stage at which people either made it or didn't. That that was a vulnerable stage, even though it doesn't seem like it should be vulnerable. Because of this sort of, "Okay, I did it," you know, "Now what?" That it is a pretty vulnerable stage, and some people... don't do very well in that period.... I'm feeling kind of like, "Well, okay. Now what?"

(she continues) And I think that some kind of post-tenure workshop—maybe not immediately post-tenure, but two or three years after. Because immediately post-tenure you're just exhausted and just trying to chill out.... I'd be interested in something like that, in just talking with other people and hearing from some more advanced faculty about what *this* phase is about. And what are some of the possibilities and how might you pursue them. Like, if I said to myself, "Okay, I want to be dean someday," well, what would I do?

Another associate professor expressed similar feelings about the post-tenure transition—a mixture of readiness to try something new with some apprehension about leaving behind strategies that had been successful in the past.

Sometimes you have to try things that you don't know how they're gonna turn out... and it's not really jumping off a cliff. I mean, it would lead to something else, probably, if I didn't like it, but it is a little frightening. And at this stage, at least I feel like, "Okay, the only thing to do is just to keep doing what I've been doing," really. Because it's secure—it's almost like you paint yourself into a corner, you know, it's secure and I know what it is, and I may not love it, but I know what it is, and doing something else is scary. I don't know. So, yeah... I think it'd be a great workshop to do.

In addition to demonstrating the uncertainties that accompany the move into a new career stage, these quotations highlight the feelings of isolation and vulnerability that faculty may feel even after achieving the major milestone of tenure. Guidance and support from others would be helpful to them as they plan for their post-tenure years.

For mid-career faculty, changes in work role occurred as they moved (or considered moving) to administrative roles at the department, college, or university level. They sought more information about these roles and advice on how to manage part-time administrative duties—perhaps as part of "trying on" a new leadership role—while still maintaining a vigorous scholarly program.

I would've appreciated more focus on specific issues in an academic environment—for example, how to deal with having part-time administrative jobs. Your first administrative job in academia is very often a part-time thing, where you're expected to continue running your research group and also do this administrative job. And is that, I'd like to know, is that difficult? When they say it's half-time, is it really half-time? How do you handle your graduate students when you're spending time in Old Main or in Regent Hall? —something like that. Those would've been interesting.

The following speaker likewise expressed concerns about managing a new leadership role. She suggested that LEAP could support opportunities for department chairs to interact with each other—to exchange ideas and reflections for their own benefit as well as for the benefit of incoming or future chairs.

One thing that could happen that would help people like me, who are just going to come into a role—it would help me *now*, to see what the community of chairs in my college is like. And I think that when the department chairs get together, they get together for business meetings. It's that point in time when the deans can announce things to the chairs and set up new department policy. I think that there's *no* opportunity—and there should be, even if it's just once a year, or once a semester—for chairs to reflect on what it is like for them. They are not having time to do their research, they're cut back from teaching, their access to graduate students is much less, simply because of the constraints of time, all of those issues that they don't get to voice, but *should* get to voice, is one issue. But, I think that it would be important for people who are coming into the role to see that. To see the consequences of what they are about to jump into.

Throughout all these comments runs a common thread— the desire to hear from experienced colleagues who have been in these roles, are perceived to have managed them well, and are

willing to share their lessons learned. Relying on local expertise is a low-cost, home-grown strategy that is very sustainable, and it expands upon a strategy that LEAP programs have used effectively in the past. Indeed, one participant specifically praised this aspect of the workshops:

The thing that I am really liking about LEAP is ... what I call the vertical integration of, of activities. And I think that's been beautifully organized by Tricia and Carole. And then the way they've brought people in to participating in a mentoring [capacity]. You bring in senior women to talk to rookie chairs like us, or you bring in associates to talk about mentoring assistant professors.

These examples also counter the unspoken assumption that tenured faculty do not need help or training—that smart people who have progressed this far do not need anything further in the way of faculty development. These quotations illustrate instead a demand from thoughtful people for changes in institutional thinking and practice to provide career-long support that enables individuals to grow personally and professionally and to apply their experience and skills to improving the institution.

#### 4. Miscellaneous Advice

Other advice include requests for information. There were general requests for more information about university policies, such as family leave, and information about resources available to families and two-career couples. We note that the timing of these interviews was prior to the development by LEAP staff of some information brochures, but also that so far the availability of these brochures does not yet seem to be widely known. Several participants also suggested that LEAP should be more visible on campus, including suggestions that the web site should be a more extensive and up-to-date resource. Again, the timing of these suggestions was relatively early in the project's life span, which undoubtedly affects real and perceived visibility. Some participants felt that LEAP could provide useful data to departments about the gender distribution of their faculty and students, perhaps in comparison with national averages or comparable institutions, that could prompt department-level discussions.

In addition to chairs' training (which was mentioned by several participants), some felt LEAP could be effective in training departmental mentors, not just extra-departmental coaches, or in training for other types of mentoring (e.g. of graduate students). Another participant suggested an interesting variation on the coaching program. Her idea for what might be called a faculty "welcome wagon" is similar to that proposed by one coach; it would extend the networking benefits reported by participants but might be experienced as less stigmatizing and more friendly than formal "coaching."

I also wonder if people... wonder if they need it... and so, while you can't make it [happen], I wonder if every new assistant professor, if they were assigned someone... and that person contacts that person, "Let's go have coffee." Maybe nothing ever happens after that, but that person then knows somebody. So I don't know, you can't force things though—so I don't know how you could do it so it's... every assistant professor is contacted personally by someone in the program. And maybe, here I was talking about the idea of it beginning with the director, but maybe it would be better if it came from another faculty member, you know, faculty member to faculty member.

The strong networking benefits they experienced led others to suggest that LEAP could support formation of interdisciplinary networks and help more generally to foster intellectual community

on campus—needs that were strongly reported by participants, as we have noted and will discuss further in a later report. Participants did not propose specific mechanisms, but a group of creative faculty minds might be set to discuss this issue and brainstorm solutions.

# VIII. Observations about the LEAP Model of Change

We have discussed in the preceding section the observations with an evaluative character—that is, positive and negative responses to the programs offered, and the suggestions offered to improve and expand these programs. A second type of comment concerned the model of change in use by the LEAP project. Every interviewee was asked to discuss whether and how they thought the faculty development programs offered to individuals could collectively lead to the desired "institutional transformation" that is the goal of the LEAP project and the ADVANCE program as a whole. Interviewees also offered spontaneous comments on aspects of the change model that they perceived to work well or less well.

In this section, we summarize these observations about the model of change chosen by the LEAP project. In contrast to the previous section, which focused on the LEAP project in the specific form in which participants have encountered it, these comments are organized around the general model in use and what it can or cannot accomplish, in participants' views. Participants offered their own ideas of how the model may be effective or ineffective and gave advice for how its achievements might be enhanced by altering the model of change. While some of these comments have evaluative elements, they are primarily offered in an analytical spirit, assessing the chances for success with this general approach rather than the effectiveness of specific programs. They also largely address the strategies rather than the goals of LEAP—most participants were supportive of the goals of the project (as might be expected from participants—we did not interview non-participants). Some advice about the model of change is included at the end of this section, but for the most part advice to the project was concrete and program-specific and thus discussed in the previous section.

The issue of how change comes about was interesting to participants but also complex and somewhat abstract, and thus challenging to discuss, and participants approached it in a variety of ways, from practical and experiential to highly intellectual or formalized. Despite this variation in the content, participants' observations can be characterized as falling along a spectrum of agreement to disagreement with the strategies chosen. Although the spectrum of opinion is continuous, in order to organize the narrative, we have sorted these comments broadly into three groups: positive expectations of the LEAP model of change, mixed views, and views that express real doubts or theory-based critiques. To give some indication of the weight of opinion, we report both the number of individuals expressing a particular view and the number of observations made. This is an imperfect categorization, as not all individuals expressed a view, while others expressed multiple and sometimes contradictory views at different times in the interview, as additional ideas came to mind in conversation. Indeed, this multiplicity of views is itself an indicator of the complexity of this issue.

# A. Support for the LEAP Model of Change

The majority of interviewees expressed support for the overall goals of LEAP—indeed, as we have discussed, interest in LEAP's aims was part of what led them to participate. They were interested in creating changes in the campus environment and increasing the representation of women faculty that they saw LEAP seeking to foster.

I think it's an admirable goal, [reading from a LEAP statement] "...to develop an institutional environment ...within which different styles and different approaches are not only accommodated but also encouraged." I think that's really good. (pauses) I think it's a tough goal to achieve, I think it's going to take time—well, obviously time and a lot of work—but I think it's a good overall goal to have.

...[compared to other institutions,] I did wonder at how few people, women, I thought, [were] in the higher levels of the university, and I think that's what LEAP is trying to address. Not just to put women up at the top levels in administration, but also to give the junior faculty who are coming in, a sense that there's a future for them here, at all levels, in their department and with their students and with their peers and with the administration.

While the majority of interviewees supported what they saw to be the project's goals, a sizable fraction also supported the particular model of change used by the project to reach these goals. A total of 20 observations from 17 individuals expressed views that were categorized as largely supportive of the project's model of change. These supporters viewed the work they saw LEAP doing as important and felt this work should continue. In particular, they valued the project's efforts to improve the situations of individuals.

Just keep doing it. That's a huge step, just to have this program and similar programs available....

I think, keep with the individual sort of workshopping, talking about real concrete problems that people are facing. You know, the times that Susan Kent kind of went around the room and asked each of us about our service load and gave advice, [that] was really invaluable.

Efforts to assist early-career faculty as they built their careers were often particularly cited as meritorious.

It's a very broad thing—"I want to help junior faculty"—and I think that's a noble thing to do. And it's also in the good self-interest of the campus to try to retain people who might otherwise fall off the sides because they didn't get proper guidance.

Likewise, the broad inclusion of participants in LEAP programs—men and women, STEM and non-STEM faculty—met with approval. While recognizing that women STEM faculty faced particular challenges, this male faculty member appreciated being included and felt his perspective contributed to the discussion.

I'm also glad that they extended beyond just the original charter—it seemed like it was for female faculty, and I liked how they've extended it to include a broader group of people. But... you know, I think... it is true that it is really hard—there are very few female faculty in engineering, for example, sciences, math, and that kind of thing. And I think that the original charter is still a good one to sort of stay strong and adhere to that one. It does help to bring in other perspectives, though, you know, and so I'm glad they let me in. It was very helpful.

Supporters were aware, however, that strategies chosen to reach the goals would need to be adjusted over time, as the project learned from its own efforts. They sometimes described these strategies as "initial" choices and counseled flexibility and periodic self-assessment.

I'm not sure that I can look in a crystal ball and see [whether the chosen strategies will work]. But I can say that the strategies that LEAP is taking on certainly seem logical—they seem like a very good place to start. And I think there's going to have to be a lot of readjustment, seeing how some things work and if others don't, and kind of fine-tuning it.

Participants who supported LEAP's model of change explained why they thought this bottomup, faculty-centered approach was appropriate. They felt the faculty should take the lead role in deciding what the problems were and how to solve them. This was often expressed as a belief in the power of individuals to make change in their own situations.

You can't top-down that kind of an effort, at least in my observation—you can't do it top down. You've got to bring the grassroots up to saying, to finding what the problems are, to finding what some of the solutions are, and that's where I see what LEAP is doing. It's mobilizing the grassroots.

I do believe that starting with individuals and building that way, the pyramid that way, is probably the most effective, to make those changes.

Other participants felt that, because of the "flat" organizational structure of the university, topdown efforts were not likely to be effective. Faculty did not have to respond to a "boss." As independent thinkers with a high degree of professional autonomy, faculty would not necessarily follow a top-down edict, but might instead be persuaded and mobilized by fellow faculty.

A university is just a group of professors—I mean, that's all it is. And if specific viewpoints change on the direction on where you should go, there's two ways, they come from up above or from below. And if it's coming from the faculty itself, change can happen that way.

So I think a top-down approach sometimes isn't going to work because it's going to hit the... departments and faculty members who don't share that interest and it stops right there.

Participants recognized that a grassroots approach that worked through individual change was also, necessarily, an incremental approach. The following speaker articulated why such a human development model might be particularly attractive to faculty, who have made a career out of educating one student at a time.

Here's where my role as parent comes in. And I'm not going to change society with my kid, but I'm still going to (laughs) work with him, and hope for certain things in terms of the kinds of people that they become. And that's actually what we do in our classroom too. I don't think we ever intend, think that we're going to get everybody... but we're going to try and get a few, and maybe we just get one. But I mean... (laughs) that's the way we work, we should be comfortable with that. (Laughs.)

Participants were asked to explain their views on how helping individuals could transform the university. They postulated a variety of mechanisms by which expansion from individual to institutional change might take place. One important role for LEAP, some suggested, was to get the ball rolling—to raise awareness and to educate people about the issues.

I just want to say the LEAP program is wonderful. If it doesn't do anything but make people aware that you need to get this kind of program going, I think that is a good

beginning—not just to us but to the department level, college or university level. I think they need to have more workshops like this.

And LEAP is an opportunity to think about it. ... It's there. It catches your attention, and it provides a forum for thinking about—these are not easy things.

The project's role in raising awareness could include both department-level awareness of the issues for women and individual awareness by women of their own potential to be change-makers, referred to as "empowerment" by several participants. To be effective, such consciousness-raising efforts had to be steadily applied.

I think there still needs to be... empowerment that goes on, and LEAP is very much in that domain with the workshops that it's doing and, you know, the speaking that it's doing on department levels, with the efforts that Patricia's made to get women faculty, women department chairs together, talking to women about thinking about leadership positions in the university, leadership positions in their own professions—what are the things we need to do, to get to that place? You create that demand and then it's not going to go away—then the political pressure, I think, happens.

One senior faculty member gave an example of how education and empowerment could combine to achieve broader change. In the following example, she described the project's role as both to empower her to speak up in her department and to provide her with the information necessary to argue for and implement an effective solution.

I need to be insistent about a mentoring program in my department. My faculty, they're mostly... men, mostly white men, in a profession that's very white male-dominated. Most of them can't see the need for a mentoring program—they've mentored each other for decades. And, so, we put that in as an across-the-board mentoring program that applies to all faculty, but I know the reason is that if I see where mentoring drops through the cracks, it's with women faculty and faculty of color. And that's something that I need to feel empowered to insist on. Just, you know, when people say, "Oh, you know, we don't really need one of those," I say, "We do, and we're having one, and this is how it's going to work." And I get that information from a LEAP workshop or someone else who's been to a LEAP workshop. And so that's working at it from the middle instead of just trying to talk to young women faculty, or any young faculty, that they should expect some mentoring when they come into this position in the university, and this is what mentoring should involve, and these are the checkpoints....

In this statement, she also addressed a criticism made by others, that LEAP programs needed to target not just the young faculty who were "victims" of the system but the senior faculty who could play a role in amending the system.

A simpler example was offered by another participant. Simply by sharing his own experiences, he could ease the path of a newer colleague and provide one-on-one advice and assistance. Instead of forcing everyone to re-learn the same lessons, transmission of knowledge from one individual to another could begin to change the culture.

*Interviewer:* Is there a link between helping individuals and changing culture? *Participant:* There probably would, but it's going to be a delayed effect. I mean, my first view is that if I were to get tenure and then recruit a new professor into my area, I would

probably be able to save them a tremendous amount of pain, and that's kind of in the process of changing the culture.

Another participant articulated a broader conception of how raised awareness could lead to institutional change. As more individuals became aware of the issues, she proposed, they would take greater individual responsibility for climate-related problems in their departments such as mentoring of newer members. While individual interactions would be the vehicle for this change, these interactions would have a cumulative, positive impact on climate and retention of a diverse faculty body, at least at a department level.

[A colleague] made a good observation once; she said that all discrimination is local. It's like the people you work with more closely are either the ones that are going to bother you or make you feel welcome most directly. So the more people that get involved in coaching or even think about becoming coaches or just think about being nice to each other, to me that's going to make the bigger difference than how many people you actually coach. It's just the whole idea that you should actually think about the welfare of the younger faculty in your department and you should be thinking, "What do I do to make this person comfortable?" and things like that. It's amazing how so many people don't think about that at all. It's like you hire somebody, they're good, they'll do fine and then you just don't pay attention to them.

The above quotation also offers a version of a "critical mass" theory of change. The general idea of these theories is that if enough people have certain skills, the overall quality of communication and climate will improve—the LEAP project's "rising tide" approach. Another version of a critical mass theory of change is seen in the following example.

There was a great deal of discussion about communication [in the workshop] and I think that that's something that is really lacking in a lot of departments, at least based on the comments that people were making. And so I think if more people went to this kind of workshop where they came to understand how important communication is, that that really could improve the atmosphere a lot.

Another means by which LEAP's efforts could foster institutional change was by bringing together groups who could together take action and make progress on difficult issues. These participants suggested that LEAP could be particularly effective in building networks—among women and other underrepresented groups, among individuals who cared about the campus climate, and among people who were in positions that enabled them to contribute to change.

LEAP, in a sense, provides some kind of an institutional backbone for that kind of informal communication that I think is really important for women, and I'm sure, again, for faculty of color.

Others proposed that LEAP's activities could alter the university by developing future leaders who would have better leadership skills and were sensitized to issues of diversity and inclusiveness. As this new cadre of faculty took on leadership roles, they would take a different approach to leadership and set a different tone that would improve the environment for all.

I mean, eventually, hopefully we will be the ones who are, you know, setting the environment. And, so hopefully you'll be, you know, establishing a better sort of... outlook or whatever, environment, by working with the younger faculty.

This mechanism, however, was recognized to be slow. Indeed, even the strongest supporters of LEAP's model of change recognized that this type of change—by any mechanism—would be slow and incremental.

In sum, participants who were generally supportive of LEAP's approach to institutional change agreed with its grassroots approach and felt the faculty should set the agenda for change. They suggested that institutional change could proceed through helping individuals gain skills that they would use in department and university settings to benefit others, by raising awareness of the issues and of everyone's responsibility to work toward a diverse faculty, and by building networks.

#### B. Mixed Views on LEAP's Model of Change

A second group of participants offered mixed opinions on the chances for success of the model of change they saw in use by LEAP. Sixteen individuals offered 21 observations that we categorized as mixed views. Like the first group, most of these commentators were supportive of LEAP's goals—they wanted the project to be successful, but they were less convinced that the chosen strategies would be effective in achieving all the needed changes.

To make it a better workplace for everybody, not just women, but as she said, "If it's better for women, it's better for everybody." But exactly how that's going to happen, is not at all clear.

I think it's working the right problems. I'm not sure it's got the right or the most optimal way to solve those problems yet. I'm not sure the one-week format was, you know, the end-all approach to that.

The majority in this group offered views that were ambivalent in some way, ranging from qualified support to qualified critiques. However, a few participants were agnostic—they simply did not have a clear understanding of just how individual change might lead to institutional change. Exchanges such as the following were not uncommon in interviews.

*Interviewer:* ...That is a question, you know—some of LEAP's goals are institutional, and yet, what's the translation between [institutional and] individual? Is there a cumulative effect?

Participant: Good question. It's hard, really hard to understand (laughs).

Several of these comments indicate that interviewees had not heard LEAP personnel articulate a mechanism for this institutional transformation process that they found convincing.

I mean, I do have a little uneasiness about culture change being affected just by getting women into administration.

The ambivalent group offered similar reasons in favor of the LEAP model of change as were offered by the supporters. Like supporters, participants with mixed views identified and valued the individual benefits of the project's faculty development efforts. Unlike the supporters, however, they felt there were limits to what the developmental approach could achieve.

...more resources are being provided, you know, the kind of helping resources as opposed to the evaluative resources. Those helping resources are being given to young faculty. Yeah, I think it's working, it's working on the—on *one* of the right issues. I think there's certain issues it's just not going to be able to address.

I have to wonder you know, how attainable it is. Just, again, how status quo-driven the university is and how stodgy an institution—I just wonder really, whether that change can be effected. So, so I guess from my perspective now, I can see in a more realistic sense the personal or the individual gains that could come from this. I have a harder time, I guess, actually envisioning that, as much, or that the ultimate goal of institutional modification can be realized. But I have my fingers crossed.

Some had apparently considered, and rejected, some of the same change mechanisms proposed by supporters (and described in the previous section)—such as replacement over time of the current leadership with leaders who had better communication skills, greater sensitivity to diversity concerns, and could set a tone that would establish a more inclusive culture.

I think that at some point the rubber is going to meet the road in that, all of this coaching and so forth, by itself will help at the lower echelons, of bringing women into decisionmaking roles and leadership roles. And I'm not quite sure—my vision is less clear about how it is higher levels of decision-making are going to be filled with minorities and women. I don't see how that's exactly going to work. And, I'm not sure if that's in the initial design of LEAP or if that's something that is going to happen [later]. I hope that Tricia's vision is not that it's going to happen because these junior faculty are going to rise to the ranks in the next 20 years—that's too slow.

Yes, and if that is the limit, the extent of the vision, then I don't think that LEAP will work. But I don't know what the *actual mechanisms* are to make these institutional changes.

Others suggested that a more balanced mix of bottom-up and top-down efforts for change would be necessary.

To make some of these changes that I think need to occur, [it] needs to certainly come from both ends of the spectrum, from the top down and from the bottom up. I don't think it can go either [way], can be successful in any one direction in the top up and from the bottom up—I think has to be mutual.

These participants wanted more recognition of the structural and cultural issues that led to underrepresentation of women. In their view, "fixing" individuals was easier than fixing whole units and their cultures, but the latter was where the problem really lay. One speaker described how uncivil behavior by an individual—for example, in a department meeting—could be more readily addressed by a chair (at least after appropriate training) than could the generalized bad communication habits and turf-protective behavior that were ingrained in departmental cultures.

...And an individual situation that a chair could intervene in, [versus] a situation where it is the entire departmental culture, which is very much of what is going on [in my department]. And there's really been in the past one or two individuals who have really stood out in being nasty—[now] they're gone. There is no one who stands out in making this situation really any worse than anybody else. I think that's harder to change, it's harder, you know—I don't know if the suggestion is that you have conflict mediation in that sense. Because I think there is a sense that LEAP could be really effective in working with departments, but departments have to *want that...*.

These difficulties, she suggested, were harder to grapple with and would not be improved simply by providing individuals with better communication and mediation skills. Likewise, another

participant felt it was important for workshops to point out the structural issues and consider alternative structures, not just offer faculty the skills to navigate current dysfunctional structures.

And I think in the end what will wind up doing [it] is that the men who took the workshop as well will start to realize, "Oh yeah, I don't have to respond. I don't have to internalize these sort of structures of power, hierarchy and criticizing people who are lower in the totem pole," you know, because this is just another system. So I think in the end that will sort of like—you know, it will [offer] possibilities for faculty to try out for the future.

Interviewees' critiques about structural issues are discussed further in the next section.

In the following exchange, one participant gave a rather scholarly argument for a dual approach to change as she described an ongoing dialogue with a colleague.<sup>15</sup> She advocated continuing to discuss the changes needed and helping to change individuals at the same time as one worked to change the system.

*Participant:* One recurring discussion that we have is about whether Gandhi's model of, sort of, change individuals, you know—an inner-level change—is most important, or whether we institute a structural change like communism. So do you try to change the system from the outside? And ultimately, I think, ideally, you are going to want to do both, right?

But I think in general if you just change the system from the outside is what you wind up with is systems that don't work. You have like... because I think that's what the failure of communism. That in fact they tried to change the system from the outside and because the people who were sort of then filling in those places in the new system hadn't really changed, then the system then becomes another structure of oppression.

*Interviewer:* So if I'm following you correctly, you're sort of saying that part of what does make change is looking at them and examine and recognizing and discussing it?

*Participant:* Yeah, and I think the discussion thing is really great because I think that that's how... I think that that's how people really do change. You get... when people start to think about things, that's when people start to... it's a slow process, but I think that's really how things ultimately will work.

Another participant also articulated the merits and limitations of an approach based on individual faculty development. As she discussed in the passage below, empowering individual women and raising consciousness were important, but also required was a broad and strategic plan for engaging these new leaders as a group. She called for LEAP to serve as the gathering point for collective agenda-setting and development of tactics for making change.

...You can't do this from the top down. I think the best thing is to do—sort of what is started now with LEAP is that you embolden and empower enough women in enough different fields and give us the backings to go out and do the job. But what I want to know a little bit is, what is the job, how best to do the job. And I guess, in some senses

<sup>&</sup>lt;sup>15</sup> Indeed, many of the interviewees were far more schooled in these issues than was the interviewer, with professional education and scholarly interests in social and organizational change.

having us tell stories or, you know, really figure out a little bit more what is wrong and how we can individually make it better, would be very useful for me.

(continues) One of the things that I know I was a little bit worried about with the first seminar was, is this going to be a "Let's get together and bitch" sort of session? And these're really fun sometimes, *really* great to let it all out and to, you know, get some sisterhood together. But at the same time they usually don't go anywhere. And so what I'd like to do is to approach this in a much more systematic sort of way and say, "Can we identify the sorts of things that *are* happening in our, in the scientific society, and systematically try to address them ourselves?" And I think that, you know, the bitch session is something you have to go through at some point during your life, when all of a sudden you realize, "Oh yeah! These things are happening. That's not right!" But, rarely have I found a real impetus, or a real... avenue, to get beyond that, actually start feeling I can do something truly, truly positive, on behalf of the field, on behalf of really the community.

She sought clear leadership in setting the task and going beyond sharing concerns to turn the "bitch session" into an agenda for action.

In sum, a number of interviewees expressed some ambivalence about the LEAP model of change. Like supporters, they agreed with LEAP's aims, but held doubts about the effectiveness of the strategies chosen to achieve them. They saw both merits and limits to the faculty development model and felt that it would be more effective coupled with top-down initiatives that could address structural issues.

# C. Critiques of the LEAP Model of Change

A third group of 16 interviewees offered stronger critiques of the model of change, in 23 observations. While some of the critiques offered are similar to the reservations raised by the previous, more ambivalent group, these critiques were more strongly framed. They were distinguished by their greater pessimism about the potential of success within the LEAP model of change as they saw it being applied. Many of these critiques were grounded in speakers' academic knowledge of processes of organizational change. They were largely supportive of the goals, but doubtful about the means selected to achieve them. We categorize these critiques as follows.

## 1. Emphasis on Individual Skill-Building over Institutional Change

One critique that emerged quite clearly concerned the project's emphasis on development of individuals. Some participants felt that the model focused too much on individuals and not enough on institutional structures that fostered or perpetuated inequities. For example, participants were attracted to the leadership workshops by their promise to address the challenges facing women in science, but were disappointed by the workshops' emphasis on individual skill-building. They were concerned that the approach they encountered in the workshops focused too much on "fixing" women faculty and not enough on fixing the systems within which faculty worked.

If you think about the transformation of society or the transformation of women's role as scientists, there are two approaches. One is fixing the women, and [offering] the management skills is sort of like fixing the women and making them better men or making them better scientists and that stuff. And that is very good and very necessary.

But I would like to see more dialogue about transforming society, the thing that Tricia Rankin says that she really does want to do. I haven't gotten a great grasp from LEAP exactly how this is going to happen and what I can do to help it happen.

No, we really didn't address that issue. It was more of an individualized program, which is problematic in multiple ways. Much of the challenges that women and minorities face... in any organization is more structural. And when we have solutions that are based on *you*, we negate those longer patterns that have existed. So you walk out kind of feeling a little energized, but the reality is there's still these other things going on—that no matter how much I know my communication styles, it is not going to change it.

Participants offering this critique wanted the LEAP programs to be more explicit in raising awareness of the structural and cultural factors that hinder women's advancement. With that awareness, they envisioned discussing and generating collective rather than individual approaches to change—a more directly political approach.

For me one of the things that I was a little bit disappointed about was—I was actually more interested in the ad, of ways to increase women in my field. There was none of that.

...making it slightly more political and kind of... not [so] warm and fuzzy. You know, warm and fuzzy is not going to actually contribute to substantive change. Sometimes you've just got to make public the harder, more complex issues.

One male participant expressed similar concerns. He understood that LEAP was directed at advancing women, but felt the project should tackle this by working to increase diversity campus-wide—an effort to which faculty of any gender or ethnicity could contribute—rather than focusing on helping individual women.

As a whole, this... university does not have a good record [on diversity]. So I think they should put these issues on the table.... Going through [LEAP] programs, ... it didn't become that important. I mean, it was more about individual career management. It was almost... indifferent to these questions of race or gender.... ...It was more kind of in terms of the individual experiences—but, you know, at an institutional level, how do you deal with these kinds of things? And how do you encourage more students of color to come in and seek admission? [How do we stop the high attrition of minority faculty?]

This participant wanted more explicit discussion of gender issues in the workshop—for example, how gender affects classroom dynamics. Gender, he felt, should be a topic of the workshop, rather than a criterion for admission.

(continues) I think this is a very important issue that should be given much more importance ... for the university as a whole. ...I don't think the personal gender itself becomes important in the way which they organized... the workshop. Like for example, you don't have a day or even an hour or two hours [within the workshop] just talking about the issue of gender in the classroom or something like that.

While the stated goals of the LEAP project were to change the system, not the individuals, participants did not always perceive that the concrete activities of the workshops were offered in a spirit consistent with that expectation. In their view, language was necessary but not sufficient to communicate that message.

So much of what we did that week could have been understood as creating a particular kind of subjectivity, or creating a particular kind of identity that does "operate well," "produce well," "function well." Somehow that process, even though it can help us individually, seems still to not really change the system (laughs).... Tricia said at the beginning, "I want everyone to know that this is not about changing women...." That was valuable that she said that. But then I think, maybe some other caveat in the beginning that says, "The goal of this workshop is not to further legitimate, the structures of power that exist in the university and society, it is to figure how they work, and figure out what ways you might be able to work within them more effectively, to try to change them if you don't think they're fair."

Moreover, while raising structural issues as a matter for discussion in the workshops, some participants also pointed out that structures and individuals could not so easily be separated—the institution is made up of individuals, and its cultures are expressed through the behavior of individuals.

I mean, when you frame change in terms of giving people the skills they need to thrive within the institution and the understanding of how the institution works, it frames it in terms of, the institution is static and is not actually made up of the very people that you are talking about. So it's kind of not static, it's been reinforced; it's been naturalized in so many different ways.

Another participant made a similar point, noting that it would also be difficult to measure changes in culture or in group environments, as opposed to noting the progress of individuals.

And that, again, is that thing about the individual compared to how an individual is contextualized, situated... in a community. If you think about leadership as being somebody who has unit responsibility or line authority... it's easy to mark the progress on that. And so the emphasis is probably going to go toward getting different kinds of people in that. Tracing the effect back into operating units... is really difficult.

As the sophistication of many of these comments makes clear, many of the participants had (or recognized that their colleagues had) scholarly expertise in organizational structures and system change. While valuing the skills they gained in the workshops, as academics they also wanted to see the project's efforts to be grounded in theory and based on an intellectual rationale for its choice of actions to solve the larger structural issues. Likewise, another participant felt that research findings on the sociology of science could be used more effectively. She observed that it was important to deal with the practical issues for women, such as promotion and tenure processes, but she felt that the underlying issues were broader and were related to the way people interact in the scientific workplace.

...But there's relatively less ... in terms of the sociology of the science, the sociology of knowledge kinds of things. The kind of work that Bruno Latour does and some other people, and Donna Haraway, about working in teams and how the laboratory actually works, on different models of the laboratory, and science community studies and things that I think you could actually take into a department as a whole... I think there's relatively less of that, that I see as being a part of what LEAP is addressing. And ... it's what makes sense and what's saleable... and then a lot of times you sort of have to do the... science community stuff on the side (laughs) where it's a bit of a subterfuge. And

so, to that extent, I'm happy to do the coaching, which fits into the 'women in science' model, but my intent... is to try and work about changing community interactions.

In sum, participants making this critique felt that the LEAP approach was sometimes too simplistic or naïve in relying on faculty development to enable the large changes desired, which they saw as caused by structural problems rather than individual deficits.

## 2. Need for Clearly Communicated Vision and Broadened Ownership of that Vision

A second group of criticisms of the LEAP model of change surrounded what participants perceived to be a lack of clarity in the project's strategic vision. These observations are similar in some respects to the concerns of the "ambivalent" group, who wanted to better understand how the project intended to achieve its aims of institutional transformation through individual development. However, for this group of commentators, the lack of a clear mechanism for this transformation was a deal-breaker—while they supported its aims, the lack of a clear plan was sufficient to raise doubt about the project's potential for success, no matter the degree of good intent.

They're just deciding to do programs but there's no strategic plan. ... I get the feeling that nobody is driving. We're just going down the road, the road is not a bad road, you know, the scenery is interesting but we don't really... I don't know where they're going and I don't know who is driving the bus. And maybe Tricia is reluctant to step into the driver's seat and say this is what needs to be accomplished.

These participants wanted the project to articulate its theory of change: what are the problems to be solved, what are the actions to be taken, and how will these actions address those problems? We emphasize that, like the supporters and the ambivalent, the critics were generally supportive of the aims of the project, but they felt it important to state clearly how the chosen activities would further the broad aims of the project.

But if I had been a reviewer on it, I would have said there was no clear path articulated. There's not a path that says, "Okay, here's where we are, here we would like to be," or "Here's where we are and this is how we are going to decide where we want to be." It just seemed a little too nebulous.

I would like to have seen more vision from the top on what we're trying to do. ...It seems like a mistake to jump into such a big program without having more of a clear idea of what your goals are and what the problems are that need to be fixed. That doesn't diminish from the value of any of the individual activities that are going on. ...I felt like if I were going to do it, I would have started with a set of goals and ideas for what should be done and maybe some of those are wrong, but I didn't see the draft, do you know what I mean? ...I didn't see a vision, which kind of made me surprised that it got funded, first of all, and then it seems to me like it's going to be less effective. In the long run, we'll find that we're not really sure what we accomplished because we didn't have a clear set of things that we were trying to accomplish. And maybe... it just wasn't articulated.

The spirit of such comments was supportive of the goals of the project but offered analysis to help it be more effective. Participants felt it was not too late for the project to re-focus its strategies, select from those deemed to be working best, and broaden its tool kit to approach hard problems from a variety of angles. Although they sought leadership in bringing the group

together and identifying realms for action, a number of participants also invoked community participation in this re-focusing project.

...It would be great if somebody came up with a list of things that they want to accomplish and a list of ways that they were going to try and do it, and then allow people to make suggestions to change.

On the other hand, the things that they were doing seem like good ideas, so it would be nice, even now in retrospect, to go back and say, "Here's what we felt we should do. How does this all fit together in some kind of a strategy?" And I don't think it's necessarily bad to go back and try to formulate a strategy based on what you have been doing and then see if it's really doing anything, "Does that [activity] make sense?"

The desire for greater clarity of the strategic vision also reflected participants' concerns that their own time be wisely invested. Coaches, for example, wanted to know that their own efforts on behalf of LEAP, large or small, would be effectively put to use in service of the broader goals. As we noted previously, participants' motivation to participate was influenced by their interest in and sympathy with the goals of the project—thus they felt they could offer useful ideas and energy to the project.

...[that's something] we might comment on, given our experiences having coached. I'm curious that I'm saying this—because why do I want to give that input? Maybe I want that input because I want to know the time I've invested in this is going to have some input, because I want to help change the culture. And yes, you change the culture one on one, that's important.

A second participant echoed this thought, wanting to hear from the project about its progress and evolution and offering her time to provide feedback. She asked to know:

...how the goals of the grant have evolved, partly based on our participation but also just based on the general grant. I would be interested in that because I'm interested in the culture change and this is the mechanism that CU is using to try and change that culture. Having invested the time I have in the program itself some of that feedback—not to mean one-on-one, but just as a group of people that invested time in that program—I would appreciate and I would find interesting. I would make the time to go to something like that a roundtable or something on that.

Participants also felt that broader input from the campus community would enhance the likelihood of making the desired changes truly institutional.

If you're looking for institutional change, then this has to be a program that is identified with the institution and not just with the particular person who's organizing or leading it right now.

In sum, some participants offered the critique that the project did not articulate a clear enough vision, despite its successful individual-oriented strategies. They wanted to understand more clearly its goals and how it would achieve its goals. At the same time they offered their interest and input into that process and their energy to work toward the goals they shared with the project. We suggest that this interest also offers a path by which their critiques can be addressed: leadership can be broadened as faculty feel empowered to contribute and can be organized to move the project forward.

### 3. Preaching to the Choir

A third type of critique was offered by those who observed that the chosen strategy of developing individuals' skills applies only to people who volunteer to participate. In their view, the programs can only reach people who already have an interest in bettering themselves and the university. As one participant put it, "In some ways it's preaching to the choir, because we're all there because we're all interested." Thus the potential for real change is limited, they argued, because the people who contribute most to the climate issues that perpetuate underrepresentation are not participating.

These participants argued that what is needed is to intervene with difficult colleagues who contribute to problems or impede solutions in departments. For example, one participant suggested that incivility was difficult to curb because the people causing the problem did not participate in learning better communication skills, while chairs and other leaders did not generally receive training in how to cope with and deter negative behavior.

So does coaching help with that? Only if you're going to coach the people in the committee who are acting in a poor way. And we don't do a good job at that, right? There is no training whatsoever that is given to any committee chair. Other than to see how another committee chair might have run that committee.

At the same time, interviewees also recognized the difficulties of engaging and reforming unwilling participants.

I think the weakness is that there aren't more people who are required to participate. I think that, unfortunately, the people who participate are probably the ones who are already fairly positive. In our [workshop], we had some good tips for how to deal with difficult people and there were a lot of people who needed that. But the reality is if you're dealing with a real jerk, it doesn't matter how socially adept you are, you may not be able to accomplish anything. So, in some ways the people who need to go to these programs, are the people that have already been identified as not-so-collegial people. (Laughs.) You know what I mean? And again, when you're dealing with that kind of person, it's hard to say whether this kind of program would actually make a difference with them.

A second variation of this observation addressed the participation of men. Some faculty noted that most of the people in departments who are at the root of climate problems are men. They did not make essentialist claims that men cause more problems simply by virtue of being men; rather, they suggested, gender socialization is likely to blame. Nevertheless, as the majority in most academic departments—certainly in the STEM fields—men needed to be included more in LEAP activities to have an impact on the institution.

In these disciplines where 80% of the people are men, having a workshop that could actually get at the men (laughs) who are somewhat resistant to change, I think is helpful.... Because if you just focus on the disadvantaged minority—really it's also about changing the minds of the majority, so those people too need to be a part of the LEAP experience.

I think it's important to educate both men and women about that [creating a collegial atmosphere] and expose men and women to the importance of that. So I think it makes sense for the leadership, for the LEAP program to emphasize women, perhaps, but not

exclude men, because, we're never going to be a university of all women faculty, you know (laughs)—it's never going to happen.

Such observations were not necessarily offered to suggest that LEAP was not including men, since most participants were aware that men did participate. Respondents' experience was varied, however—some workshop groups were primarily women, and thus participants in these sessions came away with a sense that men were not participating strongly. And, because men comprise the majority of the university population, they are proportionately underrepresented among LEAP participants. Interviewees gave strong advice to continue involving men, and to deliberately target men in power positions (such as department chairs). They were not convinced that voluntary participation alone was sufficient to engage these key individuals.

### 4. Need for Top-Down Initiatives and Involvement of Upper Administration

Another type of critique addressed the limited potential of any grassroots-only effort. These observations addressed two ways in which involvement of the university's upper administration was important. First, they said, university management needs to be visibly supportive and involved in the change agenda. Listing specific administrators by name, this speaker suggested:

Maybe this could be a topic for discussion... bring in some university administrators, Phil DiStefano perhaps, or Dick Byyny, or Betsy, to come in and say, "Okay, so now how are we going to work together to effect this institutional change?"

Beyond visibility, the input of these higher leaders could be of substantive as well as symbolic value. While the following observation referred to attributes of former president Elizabeth Hoffman, it nonetheless describes the value of the political and intellectual gains to be made by involving certain types of institutional leaders.

The other way to do it might be looking up in the university... like, I don't know if Betsy Hoffman is involved in this at all, but she's somebody that who... seems to me that would be a good judge of ... what really constitutes leadership. And having her help formulate the vision for it, if you could get her time, might be helpful, because she is someone that probably would understand the politics of service vs. academic leadership and figure out really what needs to happen and she's supposedly on the science board now, the National Science Board.

These suggestions also echo the "symbols" lever in Austin's model of change (Austin, 1998). Participants suggested the project might capitalize more on its visibility and high status. External funding validated the importance of the work and raised the profile of the project, drawing faculty attention in a way that a sincere but strictly voluntary effort might not.

...Knowing that it's there, knowing that the program was—you know, it was funded by NSF. Wahoo, you know, that's one of the big catches! You got a big NSF grant, that's a gold star for it. Knowing that there are resources and people and emphasis being put on this, it is that feeling of investment.

And if you identify it with the things that do have weight in our community—money (chuckles), NSF grant, big famous people endorsing it—then these things, you know, given that, I think that it is likely to be a great success.

While we did not ask participants to discuss this lever of change, it may be possible for a faculty and administrator group to brainstorm additional ways in which the "symbols" lever might be activated.

Another role for institutional leaders would be to provide the long-term follow-up necessary to really accomplish and institutionalize the desired changes. This critique was a general one—a challenge for any reform project, whatever its model of change. A number of participants made this point, arguing that a five-year grant was far too short to make the desired changes in institutional culture and habits of interaction.

I think time is going to change it. I hate to sound so pessimistic.

And this is probably the hardest problem there is in academia, is equity... and discrimination. And... I think we're talking a generation for these kinds of things to start to go away—an academic generation being 25 or 30 years. And obviously there are gradual changes that occur and there's going to be... you know, what do they say in evolution, a punctuated equilibrium? —you get a big surge in one area. But no, it's that kind of persistent, steady effort that's going to amass the changes I think that we need to see.

The NSF is nuts if they think they can accomplish this in five years. I mean, these should be 20-year efforts and the university should be... putting aside support to really embed this in the institution. The problem's not—the climate, the culture... just doesn't change that quickly. And... I don't think you can even get into assessing accomplishments in a less than five-year time frame.

Because of the slow pace of change, institutional resources would need to be mobilized on a scale well beyond the time of the grant. Given the financial straits of Colorado higher education, mobilizing these resources would be a particular challenge for achieving the institutional change goals espoused by LEAP.

I think LEAP certainly... is... *can* be and *is* successful, and part of it is just education. The next part, though, an actual implementation is outside the resources of LEAP, because that just gets to money.

This participant—a leader in a department facing a revolving door of minority faculty—went on to explain why, in his view, institutional resources were required to attract and retain a more diverse faculty. Without the financial resources to make an attractive counter-offer, CU could not retain its minority hires. Culturally, other cities and institutions were more comfortable places for faculty of color than a predominantly white university in a predominantly white city.

There's not enough support here. Not only institutionally, but just the town, the county. ...That's why, I don't know if any kind of training is actually going to achieve any outcome if the resources aren't there—or some incentive. You know, if you do hire a person of color, what do you get? You know, is the university going to come to the plate with something? I guess that's where I mitigate my Pollyanna [outlook]— yes, things would be better if the resources were there. [But] there still may have to be the extra carrot.

Moreover, he added, faculty became cynical if they were constantly asked by the administration to document diversity issues in their departments but given no resources with which to improve

them. Constant reporting did not solve the problem, but only made more work and generated a sense of despair.

Chairs and directors were just sent this *mind*-numbing grid to fill out in terms of diversity, goals, expectations and stuff. And the response from chairs was just... acid. ...It's work without any sense of, "after I do all of this, what happens to it? What do I hear back? And are there any resources to fix anything?" ...I understand the need for more information, but... it's got to stop unless there're resources there to deal with it. Whether it's retention or whether it's recruitment, it's just not going to happen.

Further, one-time initiatives were seen as not enough. He gave as an example a project to address salary equity of tenured women faculty a few years ago. Initiatives needed to be part of a sustained program, not rarities.

...That was just a three-year project and that's *done*.... I mean, it helped, it certainly helped, but ... even in the third year I was like, "Well, we need the announcement of what's next." You know, what's the next project, what's the next focus? And there wasn't one. (Laughs wryly.) We went two steps forward.... And it just was painful because, people forget so quickly that, well, actually there *was*, I think, a very effective program, but if it's not followed up by the next one, or a parallel or a sister project, people are going to forget that *anything* ever happened, and then you get back this, "Oh, *nothing's* ever happened." Well, actually something *has*, but... there wasn't a follow-through.

We have quoted this participant at some length, in part because he provides a cogent analysis of one of the long-term barriers to this type of reform, the need for real and deep institutional commitment, in policies and in dollars, and as stated above, in time. He was also one of the few participants to tie LEAP's activities closely to the institutional rewards structure as a means for making change—and in doing so, to identify yet another of the "levers of change" that have been proposed to aid in making institutional change (Austin, 1998). The rewards structure is a lever of change that participants might be invited to consider how to more effectively deploy.

## D. Advice to the Project on Broadening the Change Model

We have outlined the observations made by interviewees about the model of change chosen by LEAP and their views of the extent to which this change model may or may not be effective in accomplishing the desired institutional transformation. Faculty also offered some advice about ways to achieve this transformation. Most of these suggestions have already been offered alongside the critiques, as they tend to be general advice—e.g., "broaden the leadership"—rather than specific strategies for how to accomplish this. Yet faculty expressed a sincere interest in helping to think about these difficult issues, and a few pieces of advice did stand out in the interview data by the frequency with which they were offered.

## 1. Require Chairs' Training as a Step Toward Institutionalization of Change

Many participants suggested that the project add to its repertoire strategies that would more directly address institutional change. Foremost among these was training of department chairs, who were seen as key institutional players. Without strongly departing from its existing faculty development paradigm, LEAP was seen as an initiative that could provide training for department chairs. Many viewed departments as the appropriate unit for institutional change, thus chairs, in their roles of leading a unit and setting the tone for unit communications and

processes, were seen as key elements in raising the individual development model to an institutional level. Several participants felt that this training should be standard and mandatory for all those in administrative positions, but especially for department chairs.

You know, there would be a wonderful thing, to have every new department chair, every new administrator, required to go through some kind of training, and to have that—I don't know if you could actually make it a pre-req for the position, but to really strongly encourage it. You know, if you just had a better trained, more aware group of chairs, I think that in itself could cause a lot of change.

Given the strong tradition of autonomy among academics, some participants were unsure whether or how training could be required, but suggested that the reward structure could make training either obligatory or positively recognized.

I would like to say that this part about making chairs' training compulsory is an exceptionally good idea. And long overdue. Now that I think about it, that is the way to get to tenured faculty. And when you talk to people in other departments about what are their troubles with getting along with people, it's very often the department head who's causing problems.... It'd be nice if he had to go too. Chairs are often in a position to make a lot of changes, if they want to. And I think something like this might help them, might make them more likely to do it. And especially that supervision workshop I went to, we kind of had the same discussion. Why don't chairs do this [attend leadership workshops]? Because it's not rewarded... it's possible for the university to force them to do it, and that would be better. But it would be even better to reward them for doing it.

Another participant took this notion a step further. Training of chairs, she felt, was one means to enlist a broad base of support to sustain initiatives like LEAP, and to make institutional change possible.

If you're looking for institutional change, then this has to be a program that is identified with the institution, and not just with the particular person who's organizing or leading it right now. I think it is important that that it broaden in the sense of having really broad support from the administration. And whether that means having more people involved in the leadership of it, I can't really say. But I think it has to be clear, and maybe that's why this idea—I keep thinking about this idea of requiring this kind of training for department chairs. That would be a more broad-based, institutional commitment, right? Because you're going to have to effectively impose that on people. You know, you've just been elected department chair, and now you've got to go take leadership training.

Participants who voiced this suggestion, in all its variations, expressed their appreciation of the efforts that LEAP has made thus far, but also emphasized that more needed to be done. They argued that teaching skills and educating individuals about the university and its systems is not sufficient to develop policies, processes, and behavioral norms that will create and sustain a gender-equal faculty. They saw institutional systems as the target of change and chairs training as a practical and symbolic step toward this goal.

#### 2. Continue to Pursue a Diverse Audience

A second set of advice surrounded the audience of the LEAP programs. Many participants felt that LEAP, or its successor, should address all types of diversity, not just gender issues. These comments were generally offered in support of the broad approach that LEAP was already taking

(or, occasionally with incomplete understanding of that approach, depending on the speaker's experiences with LEAP programs).

I think LEAP should recognize that as a program it probably could be beneficial if it would not stay concentrated within one academic unit, sciences in Boulder.

I think LEAP has a lot of opportunities to not only help the disadvantaged minorities but also to reeducate and lower the barriers of entry for those people who are in majority.

I think it's important that males on campus have the opportunity to participate in this from, just again, the standpoint of the institution moving forward. That it doesn't do us any good if we're raising the awareness and promoting the skills of women on campus, if we're not doing the same thing for men.

Other interviewees suggested broadening the audience to include non-tenure-track faculty, graduate students, and staff.

In addition to these two categories of frequently-made suggestions, a variety of additional suggestions were made that assumed different definitions of the problem to be solved. We will analyze these suggestions along with their explicit or implicit statements about the nature of the problem for institutions—that is, what aspects of the institution *need* to be changed, in the eyes of participants, to better accommodate women scientists and engineers. However, to do this would substantially expand the scope of this report, so we delay that analysis for another time.

## **IX.** Conclusion

In this report, we have focused on the outcomes of the faculty development activities of the LEAP project, drawing on interviews with 35 leadership and 12 coaching program participants, five focus groups, and surveys completed by 49 participants. We have documented the motivations of participants to participate and the gains that they cite from attending leadership workshops, both immediately following the workshop and at several months' remove, and the aspects of the workshop, both planned and serendipitous, that led to these gains. For the coaching program, we have discussed the benefits of the coaching relationship to both assistant professors and their senior faculty coaches, and the nature of the coaching relationship that led to these benefits. From this evidence, it is clear that the LEAP programs have been beneficial to their participants, providing useful skills and knowledge, supportive personal and professional networks, increased professional confidence, and a greater sense of support and investment by the university.

We have also summarized participants' general impressions and feedback about these programs, both positive and negative. To their credit, organizers have responded to specific feedback about the programs as they received it and have adjusted the programs (particularly the workshops) to respond to participants' concerns and advice. Lastly, in addition to program-specific feedback, participants also offered broader perspectives on LEAP's goals—which they largely supported—and its chosen strategies, about which their opinions differed widely. Some participants found LEAP's grassroots-based, faculty development model compelling as a way to achieve institutional change. We have described their views of why and how this could take place. And, as we have also described, others raised doubts or even strong misgivings about the chosen model of change—but even these were shared in a spirit of support for the overall aims of the project and an interest in seeing it learn from its experiments and become more effective.

The belief of many participants in the faculty-centered, bottom-up model of change expresses a democratic—and perhaps very American—faith in the power of the people. Indeed, the strong positive outcomes of the project's faculty development programs suggest that the project has been effective in attracting, developing, and energizing faculty. This alone may be enough to argue that this hypothesis of change—one shared by many—has been worth trying, among the several experimental models supported by the ADVANCE program.

Others argue that this grassroots model would be enhanced by more effective cooperation with top-down initiatives, a view that project leaders have also come to express in recent months. Still others offer critiques of the faculty development model of change that parallel scholarly work on organizational change and point out compelling concerns and ideas that might be incorporated into an evolving project design. A project that attempts fundamental social change among an educated and articulated population such as university faculty is fortunate to have more knowledgeable and thoughtful consumers than many other types of social intervention—but it is also then perhaps more obliged to listen to them.

To summarize, we find that the LEAP professional development programs have had positive effects for individuals. They have generated interest and engagement among a group of faculty who support the project's goals and express willingness to contribute their ideas and energy. However, we do not yet see signs that the faculty so engaged have been effectively mobilized to help push forward the project's aims. Nor have we not yet heard from our interview population about any top-down initiatives that have taken root. We have not yet identified (nor may it be possible to identify, at this early date) signs of change in the climate that would be outcomes of the "rising tide" change mechanisms proposed by the project and some of its faculty participants.

A hint of the direction in which to proceed may lie in what is perhaps the most striking, unexpected theme that emerges from the body of interview data: the desire of participants to contribute to an effort that they view as necessary and important.<sup>16</sup> As we shall discuss elsewhere, faculty have much to say about the stresses of time—their lives are busy and they are challenged to balance their work and personal lives. Thus it is surprising to hear them, within the same interview, volunteer their time, ideas, and energy to contribute to the work of the project. Feeling themselves in sympathy with the goals of LEAP and ready to join with others in the effort to change the campus culture, they ask to be informed about the project's work and its goals and to be invited back to contribute to these.

It would have been helpful to have them have a summary of, "Here's what we learned from this; here's where we're going next." ...It would have been helpful for me to have some feedback from the program about what they've learned from our conversations and that... partly I would have learned how our conversations fed back into their ideas of how to change the culture, if I'm going to be part of the program.

I would definitely consider participating in something because I feel like it's a really worthwhile goal.

And so what I'd like to see next is the next stage. Now that I feel like I have some skills to deal on that level, I'd like to see more about how we can effect more change outside.

<sup>&</sup>lt;sup>16</sup> We continue to hear this theme in the second-round interviews as they proceed.

As evaluators of other reform projects, we recognize such comments as indicators of a potential resource. They suggest a means by which the project's chosen model of change can be expanded to address the concerns raised by participants, while remaining consistent with its original conception as a human development model. We encourage the project to build upon the good will, community readiness, and interest that it has already stimulated; to develop greater community ownership of the change process; and to seek ways to empower faculty collectively, individually, and at all levels of seniority to tackle the challenging problems that they so clearly identify.

We have argued that the LEAP model is an appropriate experiment in social change, given its context within the ADVANCE program as a whole and among other efforts at institution-wide reform. It then follows that we can learn the most if this experiment is pursued to its logical end, expanding the model so as to draw fully upon the grassroots support documented here. As we continue to document the achievements and challenges of the change process, our understanding can be combined with what has been learned from other initiatives using other change models. From all of these, it may be possible to develop a blended model of change that can be exported to other universities.

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# Appendix 1: Summary of Research and Evaluation Design for LEAP

### I. Institutional Map: Career Options for Scientists within the Academy

- *Goals:* Determine where scientists with advanced degrees work at CU-Boulder—the people who are or are not in the "pipeline" of interest to LEAP.
  - Quantify the proportion of men and women faculty and non-faculty in academic positions of different types

• Identify the demographics of occupants of specific positions to inform our sample for subsequent interviews

*Strategy:* This study is descriptive and quantitative, and is based on existing institutional data. It results in a map of science career roles at CU, by gender, ethnicity, field or discipline, faculty/staff category, academic or institute location, salary and provides necessary background for selecting sample for Study II, Pathways. The career groups to be distinguished include:

- faculty (tenure-track, tenured, research);
- instructors, lecturers, and other non-tenure-track teaching positions;
- postdocs, including some at CU-affiliated government labs;
- research associates (soft-money researchers) other than postdocs, including affiliated government labs;
- graduate students.

# II. Career Pathways Study: Scientists' Career Choices within this Academy

*Goals:* • Determine how women and men in academe envision their careers, make choices about them (including the history of past choices), and react to the career options that they perceive to be open to them. In particular, are women's career choices influenced by different factors than are men's?

• Identify and distinguish between myths and realities of career options, their influence on images of life within those careers (for paths chosen and not chosen), and gendered perceptions of advantages or disadvantages of different career paths. How do these beliefs about the nature of different work paths influence career choices?

*Strategy:* This study is a qualitative interview study incorporating about 140 interviews. The interview sample of women (2/3) and men (1/3) is drawn from the Institutional Map (Study I) from all career groups. The sample emphasizes earlier career stages where choices are still being made or have been made recently. The interviews are anonymous and confidential consistent with the university's Human Research Committee policies.

We seek an understanding of factors driving the combinations of choice and circumstances, perceptions and realistic appraisal, that produce gendered patterns of academic employment that are particular to this university, but are also likely to be found in similar institutions. The information could be used to develop a more broadly-administered survey.

The Pathways interviews address the interviewee's: path to current work situation; work history and future directions; career goals or motivations and their sources; workload patterns, skills, sense of autonomy in work situation; advantages and disadvantages of the work situation; feelings of career success and definitions thereof; role of choice vs. chance or circumstance in career transitions or turning points; links between identity and work; workplace norms about

time, availability, life-work balance, and collegial expectations about these issues; rules and norms about career advancement.

# III. Change Study: Individual and Institutional Effects of LEAP Interventions

*Goals:* • Measure changes ascribable to LEAP programs, including changes in skills, attitudes, climate, coping. What changes do program participants observe? What are their ideas of how institutional change happens? Did this program make a difference for its participants? What effects on the system (if any) does this have?

• Identify additional faculty development needs, at all career stages, that may be addressed by LEAP or other programs.

• Discern how the levers of change identified by LEAP are wielded in practice. How are policies that affect women interpreted or changed; how do institutional leaders encourage and promote desired leadership practices; what are the effects on rewards and evaluation procedures?

• Explore anticipated and, particularly, unanticipated connections made by LEAP with other groups or efforts that may help or hinder its efforts to make change at the institutional level. Such connections may include discovery of common agendas, beneficial leveraging of programs, or difficult issues uncovered by LEAP that relate to other issues on the agenda of university leaders.

## Strategies:

A. Formative Evaluation of the LEAP Interventions.

We are assessing workshops and other interventions to probe what is happening during the LEAP interventions and to gather feedback from participants as well as to detect direct and indirect effects of workshops and to identify issues for future interventions. Strategies include focus groups and surveys immediately following the workshops.

B. Accounts of Change from Participants: Longitudinal interview study of LEAP participants.

The sample for this interview study is drawn from approximately 50 program participants leadership workshop participants, coaches and coachees. Interviews are conducted at 12- to 18month intervals with members of four workshop cohorts and two coaching cohorts from the first two years of the LEAP interventions. The interviews are anonymous and confidential in keeping with the university's Human Research Committee policies.

This study emphasizes the grassroots faculty perspective on change as reported by program participants. We seek to identify evidence of change over time for the program's participants, which may (or may not) be ascribed to LEAP. Signs of personal, professional, and institutional change may include: changes in work situation, promotion, opportunities, status, or resources; increase in civility, respect, or collegiality; change in sense of empowerment, morale, or optimism; shifts in aspiration or expectation; changes in departmental context and value system.

We will also address perceptions of how change happens or fails to happen: signs of change; beliefs about requirements for career success, changes in these beliefs, sources of this information; contributions of LEAP; issues not yet addressed or additional needs, particularly faculty development needs.

# C. Accounts of Change from Change Makers and Leaders: Interview study of LEAP leaders, allies, and observers in LEAP's "circle of influence"

This interview study, designed in response to emergent issues of monitoring institutional change, examines the views of an additional set of 20-25 informants about LEAP's work—people who are within LEAP's "circle of influence" in ways that go beyond direct participation in LEAP programs and beyond the observations of interviewees at the faculty level. In addition to interviewing LEAP leaders and program facilitators, we are using snowball sampling methods to identify active participation, people with multiple connections to the project (including those outside the university), and higher administrators and senior faculty who are in a position to observe, cooperate with (or not), or carry out some of LEAP's institutional goals. Together these form a group of key university witnesses who are interacting with LEAP as it expands its connections and works toward sustaining its programs.

In addition to particular insights that can inform LEAP's plans and strategies, we are interested in broad questions that are issues for *all* university-based systemic change initiatives:

- What are the problems to tackle and the actions to take?
- What processes and sources of resistance run counter to these goals? How can these be interrupted? (Who can do what?)
- How might the presence of this initiative enable, encourage, and/or legitimate prochange intervention?
- What are the roles of top-down and bottom-up forces in change?
- What constitutes real evidence of change?
- What are the roles of tenure processes and reward structures in determining the extent of achievable change?

# **Evaluation Team**

This research-with-evaluation work is conducted by a team from Ethnography and Evaluation Research. We are part of the Center to Advance Research and Teaching in the Social Sciences (CARTSS) at the University of Colorado at Boulder. The team includes Sandra Laursen, Liane Pedersen-Gallegos, Kristine DeWelde, Bill Rocque, and Elaine Seymour. Portions of the study are conducted in collaboration with Joyce Nielsen and Robyn Marschke from the Department of Sociology. Please contact Sandra Laursen or Liane Pedersen-Gallegos for additional details.

# **Appendix 2: Final Workshop Evaluation Instrument**

Note: Spacing for answers has been removed from this version.

Please answer the following questions to help us assess the effectiveness of this LEAP workshop. Results of these surveys will go directly to workshop facilitators.

1. What is your position here at CU Boulder? (please circle)

assistant professor associate professor full professor instructor/adjunct other

- 2. Have you had any prior training similar to what was offered in this workshop? Y N
- 3. What motivated you to participate in this workshop?
- 4. To what extent did the series of workshops meet your expectations? (check one)

\_\_\_\_\_ Fully met my expectations

\_\_\_\_\_ Somewhat met my expectations

\_\_\_\_\_ Did not meet my expectations at all

Please explain:

5. How do you believe that this training will help you achieve your goals? Please explain.

6. What topics were the most useful for you (please refer to the session or presenter in your answer)?

7. What topics were the least useful for you (please refer to the session or presenter in your answer)?

8. What topics or issues would you like to see added to the workshop (please be specific)?

- 9. What could be condensed (please refer to the session or presenter in your answer)?
- 10. What did you think of the length of the workshop as a whole (i.e., number of days)?

\_\_\_\_\_Too long \_\_\_\_\_Just right \_\_\_\_\_Too short

11. What did you think of the length of individual sessions?

\_\_\_\_\_ Too long \_\_\_\_\_ Just right \_\_\_\_\_ Too short

12. Was there enough time provided between sessions for relaxation, informal interaction, processing new information, etc.? Y N

13. Were the activities well chosen to address the topics?  $\mathbf{Y} = \mathbf{N}$ 

14. Were the facilitators effective overall? Y N

15. What would you suggest to improve facilitators' effectiveness:

16. Overall, what was the greatest strength of the workshop (please refer to the session or presenter in your answer, if applicable) ?

17. What needs improvement? How would you go about making this change?

18. Would you recommend this workshop to others? Y N

Please provide any additional comments or suggestions about the workshop in the space below and on the other side of this form. Thank you for your participation!