

Lawrence Fellows in Liberal Arts and Sciences: A Two-Year Study

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I. Introduction

While higher education has been the focus of research for many decades, there has been a growing interest in the past decade to examine more systematically doctoral and postdoctoral education. According to recent reports, there are over 40,000 doctoral degrees annually awarded in the United States (Golde, 2006). One of the major issues facing these students is whether they are adequately prepared to become the future faculty of higher education (Wulff, Austin, and Associates, 2004). Major studies such as the Carnegie Initiative on the Doctorate (Golde, Walker, and Associates, 2006) and Doctors Without Orders (Davis, 2005) provide ample evidence about the issues that confront doctoral and postdoctoral students when they consider their future employment.

One of the most interesting findings from the research on doctoral and postdoctoral education involves the role of liberal arts institutions. While these schools do not have formal graduate programs, they have been shown to be important to individuals who pursue graduate degrees. Studies have shown that doctoral students have a strong interest in working at liberal arts colleges (Golde and Dore, 2004), that private liberal arts schools are important sources of candidates for doctoral programs (Townsend, 2005; Lemke, 2006), and that the conceptualization of academic life as a faculty member is rooted in the undergraduate experience (Bieber and Worley, 2006). Given their role in the development of future faculty, liberal arts institutions are a logical place where doctoral and postdoctoral students can acquire the skills and experience necessary to succeed as faculty in these institutions.

Lawrence Fellows in Liberal Arts and Sciences is a postdoctoral teaching fellowship program that has as its goal to develop the professoriate of the future by providing recent doctoral degree recipients from the most prestigious research universities with mentoring, teaching opportunities, and research collaborations that will better prepare them for tenure-track academic positions, especially in elite liberal arts colleges. In addition, the program aims to enrich student learning at Lawrence, more quickly introduce to the curriculum and undergraduate research programs the newest research techniques being pursued at distinguished graduate programs, enhance faculty research and performance, and further augment the college's robust offerings of one-on-one learning experiences for all students.

The purpose of this paper is to report on the systematic evaluation of the program. With support from a Teagle Foundation grant through its *College-Based Working Groups in Liberal*

Education initiative, Lawrence University assembled a working group comprised of faculty, staff, students, and administrators to study the Lawrence Fellows. Specifically, the working group investigated, over two years, a series of research questions pertaining to the original goals the Lawrence Fellows program was designed to achieve. These questions include the following:

- 1. Does the program help Fellows obtain skills necessary to achieve excellence in teaching and research in tenure-track positions?**
- 2. Does the program generate greater intellectual excitement on the Lawrence campus?**
- 3. Does the program result in new ideas and techniques (e.g. lab procedures, performance innovations) being introduced more quickly and sustained in the academic and/or research programs?**
- 4. Does the program increase the number of professional collaborations between Lawrence faculty and fellows in teaching, research, or both after completion of the fellowship?**
- 5. Does the program spur greater numbers of research opportunities for our students as well as other forms of student-faculty collaboration?**
- 6. Does the program achieve greater curricular diversity without compromising the small class sizes students currently enjoy?**
- 7. Does the program allow Lawrence faculty to teach a larger number of advanced courses and/or engage in more one-on-one instruction (tutorials, etc.) that heretofore have been impossible due to time, money, or personnel constraints?**
- 8. Does the program improve the quality of student advising for graduate school?**
- 9. Does the program better connect students with faculty who teach in graduate programs?**
- 10. Does the program lead to more and stronger connections between Lawrence and research universities?**
- 11. Does the program garner greater recognition of Lawrence among faculty at research universities?**
- 12. Does the program enhance Lawrence's academic reputation among faculty at research universities?**
- 13. Does the assessment plan, as currently structured, enable the college to evaluate over the long term whether the program results in the Fellows persisting and succeeding in academic careers? What additional mechanisms, if any, might be needed to track the Fellows' careers?**

The significance of this study lies in the fact that the topic of the study—The Lawrence Fellows program—has the potential to serve as a model for strengthening connections between premier liberal arts colleges and leading research universities, as well as to enable new PhDs to make a more successful transition from graduate school to tenure-track jobs. As such, the study dovetails with Dr. W. Robert Connor’s call for greater collaboration between research universities and liberal arts colleges. In his statement published in the June 2004 annual report of the Teagle Foundation, Dr. Connor mentions that top-tier liberal arts institutions play a vital role as “feeders” of the best and brightest students to graduate programs at leading research universities. Similarly, he states that the nation’s best research universities supply the postdoctoral recipients most coveted by both leading liberal arts colleges and research universities seeking to fill tenure-track teaching positions. Yet, in spite of this interdependency—or what Dr. Connor aptly terms a “confluence of interests”—there is not a strong record of institutional partnerships between R1s and liberal arts colleges. The Lawrence Fellows program acknowledges and embraces the interdependency of these institutions and seeks to establish meaningful, mutually beneficial connections.

II. Structure of the Lawrence Fellows Program

During the first two years, the Lawrence Fellows program was supervised by a Director and Chair of the Fellows Committee. The Fellows Committee was comprised of five additional tenure-track members of the faculty who represent all academic divisions (Humanities, Social Sciences, Fine Arts, and Natural Sciences). The Director and committee members set policies, oversee hiring, and supervise the development of Fellows. Starting in the 2007-08 academic year, the administration of the Fellows program will reside the office of the Provost and Dean of Faculty.

Fellows are selected through a highly competitive process that is as rigorous as the process for tenure-track hires. Application processing proceeds with a review of applications by departments, followed by department-initiated phone interviews. Departments then recommend up to two candidates for review by the Fellows Committee, who recommend candidates to the Provost and President for on-campus interviews. The field of applicants is narrowed further by the on-campus interviews, which include departmental interviews by faculty, an interview with representatives of the Fellows Committee, an interview by a student committee of department

majors, as well as a presentation or class session given by the candidates. In 2005, eight Fellows were appointed to the program. Fellows' appointments are for two years with the option of continuing an appointment for a third year. The departments/programs to which the 2005/06 Fellows were appointed include Biology, Conservatory of Music, Geology, Gender Studies, Philosophy, Physics, and Theatre Arts. In 2006/07, five additional fellows were appointed to the departments/programs of Anthropology, Art and Art History, Economics, Psychology, and Religious Studies.

The Fellows program includes a comprehensive, and largely Fellows-driven, teaching and professional development plan. Each Fellow is assigned a faculty mentor, who assists as needed with the creation of a customized plan that includes systematic self-reflection, goal-setting, individualized plans to achieve goals, feedback from multiple sources, peer and faculty support. The objective of this planning process is to encourage Fellows to be thoughtful and proactive in the development of their careers, while ensuring that they receive the best advice and available resources to achieve their goals. Fellows teach three courses during their first academic year (Lawrence has a trimester system) and four courses during the second year. And while they were not required to do so, many Fellows offered tutorials and independent studies throughout the academic year.

III. Study Design

The working group from Lawrence was assembled in January 2006 to investigate the research questions that determined the degree to which the Lawrence Fellows program was accomplishing its goals. This group comprised the Director of Research Administration (who served as chair), three faculty members (the Director of the Fellows program, one faculty member from the Natural Sciences and another from the Conservatory of Music), two Fellows, the Director of Career Services, a consultant from the University of Wisconsin, and a student.

The initial task of the working group was to develop clear, operational definitions for the terms and concepts contained in the research questions listed above. Once the definitions were established, the group created plans for collecting data appropriate for addressing the questions. A primary method used to collect information was web-based surveys. During the two years of the project, surveys were sent to faculty, students, and the Fellows' graduate advisors/mentors at their degree-granting institution. Also, end-of-year annual reports and interviews of Fellows were analyzed to gather information about their experiences and opinions about the program.

Finally, students' evaluations of courses taught by Fellows were used to determine quality of teaching. All of these instruments are included

Web-based surveys were sent to students in Spring 2006 and 2007. Students were selected to receive a survey if they had a major or minor in the disciplines represented by the Fellows and/or had taken a course from a Fellow(s). In 2006, 180 (38%) of 477 students completed the survey. In 2007, we expanded the eligible number of students in the Conservatory. Of the 1069 students in the sample, 334 (31%) completed the survey.

In Spring 2007, all full-time, tenure line faculty received a web-based survey. Faculty were not surveyed in Spring 2006 because we wanted their input to be based on two full years of the program, the normal time of Fellows' appointments. Of the 128 faculty who were sampled, 73 (57%) completed the survey.

In order to get information on what the graduate advisors/mentors located at the degree-granting institution of the Fellows, a short survey was sent to them in Spring 2007. Of the 12 advisors/mentors who were sent the survey, seven (58%) completed it.

IV. Results

The results section is organized around the research questions that guided the study. For each question or series of questions, data are presented that were collected through the various instruments described in the study design.

1. Does the program help Fellows obtain the skills necessary to achieve excellence in teaching and research in tenure track positions?

A central aim of the Fellows program is to aid Fellows' development as academics. Below, we address evidence from teaching evaluations, faculty and student surveys, Fellows' self-reports, and measures of scholarly productivity to address the question of whether the program helps Fellows to develop as both teachers and scholars.

a. Development as Teachers

The primary manner in which faculty are assessed at most institutions (Lawrence included) are through student course evaluations administered at the end of each term. Thus, we report student evaluations to assess Fellows' improvement over time, paying particular attention to changes from their initial classroom experience to later terms. Were Fellows successful in the classroom and did they show evidence of improvement over time?

To investigate the success of Fellows in the classroom, data are presented on the evaluations completed by students of courses taught by Fellows, assistant professors, and all faculty for the 2006/06 and 2006/07 academic years. These data represent the average evaluation across all three terms of the academic years. The response categories used in the evaluations are 1) poor, 2) mediocre, 3) satisfactory, 4) good, and 5) excellent. Tables 1 and 2 show the comparative course evaluation results. Comparisons for each question on the teaching evaluation forms suggest that, on the whole, Fellows performed about as well as tenure-track Assistant Professors and as well as all faculty combined when examining specific aspects of teaching. In general, Fellows scored within about .10 points of other faculty on the 5-point scale. Given the generally small size of any differences, it is difficult to infer any significant patterns.

Table 1. Average Course Evaluations for 2005/06

| Question | Fellows | Assistant Professors | All Faculty |
|---|---------|----------------------|-------------|
| In general, how would you evaluate this course? | 4.11 | 4.23 | 4.31 |
| Please rate the helpfulness of the instructor's comments on your course work. | 4.16 | 4.13 | 4.17 |
| Please rate the degree to which the course was organized in a way that enhanced your learning. | 3.93 | 4.13 | 4.20 |
| Please rate the extent to which you found the course intellectually stimulating. | 4.23 | 4.25 | 4.34 |
| Please rate the degree to which the instructor promoted understanding of general concepts in addition to knowledge of specific facts. | 4.21 | 4.37 | 4.43 |
| Please rate the accessibility and helpfulness of the instructor outside of regular class times (e.g., office hours, appointments, email). | 4.56 | 4.31 | 4.30 |

Table 2. Average Course Evaluations for 2006/07

| Question | Fellows | Assistant Professors | All Faculty |
|---|---------|----------------------|-------------|
| In general, how would you evaluate this course? | 4.02 | 4.16 | 4.21 |
| Please rate the helpfulness of the instructor's comments on your course work. | 4.06 | 4.11 | 4.14 |
| Please rate the degree to which the course was organized in a way that enhanced your learning. | 3.95 | 4.04 | 4.08 |
| Please rate the extent to which you found the course intellectually stimulating. | 4.26 | 4.17 | 4.21 |
| Please rate the degree to which the instructor promoted understanding of general concepts in addition to knowledge of specific facts. | 4.14 | 4.27 | 4.32 |
| Please rate the accessibility and helpfulness of the instructor outside of regular class times (e.g., office hours, appointments, email). | 4.44 | 4.37 | 4.33 |

Fellows did tend to score slightly lower on overall evaluations, organization, and teaching of concepts, but were perceived as helpful, intellectually stimulating, and highly accessible (this latter score tended consistently to be higher than the scores for other faculty). Given their relative inexperience this pattern is not surprising. However, keep in mind that differences were quite small and that the scores shown in Tables 1 and 2 include course evaluations of Fellows during their first term of teaching when their scores tend to be lower. Overall, the Fellows course evaluations across both years compare favorably to other Lawrence faculty and generally performed up to Lawrence's high teaching standards.

Comparisons between the initial terms of teaching and subsequent terms are of particular interest for assessing whether the program enhances the development of Fellows as teachers. There have been two cohorts of Fellows - eight Fellows who began teaching in 2005-06 and five Fellows who began in 2006-07. We examined these two separate groups (Cohort 1 and Cohort 2)

for changes in student course evaluations over the initial year of teaching. As Table 3 indicates, for both cohorts the numerical teaching ratings (based on 1-5 scales) assessing students' overall evaluation of Fellows' courses increased across the first year. The first cohort showed strong improvement comparing Term I to the Terms II & III of their initial year. The second cohort similarly showed improvement, though the contrast was between similar scores in Terms I & II compared to improved scores in Term III. Further, when compared to averages for the entire faculty, the Fellows' average scores tended to be as good as other faculty's scores or to exceed them after 1-2 terms of teaching.

Table 3. Improvement of Fellows during their first year

| | Term I | Term II | Term III |
|-------------|--------|---------|----------|
| Cohort 1 | 3.90 | 4.30 | 4.22 |
| Cohort 2 | 4.06 | 4.01 | 4.52 |
| All Faculty | 4.26 | 4.23 | 4.17 |

In short, student evaluations provide evidence of rapid improvement in Fellows' teaching, consistent with a central goal of the program, and this effect replicated for each cohort.

It is difficult to assess how much credit should be allocated to the Fellows program itself (e.g., reduced teaching load, mentoring) for Fellows' favorable teaching evaluations or simply to the benefits of experience. To attempt to answer this question, we turn to Fellows' subjective perceptions of how and why their teaching improved. Fellows' comments on their annual report forms suggest that one key to their teaching development has been the reduced course load they experience, allowing them to devote more attention to each course. Fellows often credited the support they received from mentors, other faculty, and other Fellows. As one put it "... *the key strength of the program is the level of support and opportunity to seek advice and help from others. This occurs as a result of the mentoring, the trips to Bjorklunden (with faculty from the committee as well as mentors) and the general dynamic of the group of fellows.*" Another suggested that "...*one of the major strengths in my mind, is the support, encouragement, and reduced load to work on developing and teaching courses... The people I work with in the*

department, and LU in general, are wonderful, collegial, supportive, understanding, and encouraging.” Another observed that *“the best aspect of the program was probably the mentoring. It is extremely helpful to have someone who can help the transition into a faculty position – providing advice and constructive criticism, sharing course materials, and so forth.”*

Fellows’ opinions were more mixed concerning the value of the various development tools the program uses. One Fellow found *“the various forms of evaluation to be helpful in the main, whether self-assessment, video, etc.”* but also noted that *“the video assessment was more helpful when assessing a lecture rather than a group discussion.”* Others found the videotaping of classes off-putting and viewed it as unhelpful, finding the experience more “disruptive” than helpful. In general, the only aspect of the program that seemed to elicit resistance from many Fellows was video-taping one class each term. There was generally more support for the value of getting student and mentor feedback (although at least one Fellow found the mentor visit also to be disruptive of class dynamics).

In general, Fellows spontaneously seemed to focus on the mentoring and support relationships with faculty and other Fellows as important strengths of the program in helping them develop their teaching skills. Regular interaction with other Fellows and with mentors was viewed very positively and several mentioned the weekend retreats as valuable opportunities to foster these connections. Finally, it is important to note that the reduced course load is a structural element of the program that allows Fellows to focus more attention on each course.

In the survey of faculty opinions, two questions assessed opinions about whether the Fellows program: (a) provided mentoring that helped to prepare Fellows for careers at selective liberal arts colleges and (b) provided teaching opportunities that helped Fellows prepare for liberal arts careers. Although the initial question did not distinguish mentoring for teaching versus research, it is safe to assume that teaching was a salient aspect of faculty responses. For this question, 69% of faculty surveyed rated the program as doing a good or excellent job of mentoring Fellows and fewer than 13% rated it as doing only a fair or poor job. With respect to providing the Fellows with teaching opportunities that prepare them for their later careers, about 79% of faculty rated the program as doing a good or excellent job and only 7% rated it as fair or poor. Thus, faculty perceptions tended to match those of the Fellows that, with respect to teaching, the program itself is generally doing a good job of preparing Fellows for subsequent academic positions.

Faculty expanded on these views in their narrative comments, which suggested that they view the program as being particularly strong on providing Fellows with “*the opportunity to learn about life as a liberal arts professor and an introduction to the ideal of a liberal arts community of scholar/teachers*” and as “*great at giving young scholars a place to learn how to teach and refine their pedagogical skills.*”

b. Development as Scholars/Artists

Based on their productivity, Fellows seem generally to have continued to develop their scholarship or artistic contributions while in the program. In their annual reports, Fellows were asked to document their research or artistic achievements. Table 4 summarizes these contributions across the first two years of the program:

Table 4. Scholarly and Artistic Output by Fellows

| Publications Accepted, appearing, or in press | Compositions, Productions and Performances | Works in Progress Submitted or in Preparation | Presentations (off-campus) at Conferences & Universities | Recognition and Awards |
|---|--|---|--|------------------------|
| 17 | 32 | 26 | 33 | 10 |

These numbers suggest a high degree of scholarly activity by the Fellows (who numbered 8 in the initial year and a total of 12 in the second year). Fellows published in a variety of scholarly journals (e.g., *Journal of Mammalogy*, *British Journal for the History of Philosophy*, *Physical Review*, *The Physical Actor*, *Personality and Social Psychology Bulletin*) and gave papers at national conferences in their fields of study (e.g., National Conference for the Society for Music Theory, National Women’s Studies Association Conference, Geological Society of America Conference). *All* Fellows were involved in professional activity, publishing articles and/or producing original compositions and performances.

Whether the Fellows program itself promoted this high level of accomplishment receives mixed reports from Fellows. In general, Fellows uniformly praised the program in their annual reports (most gave the program a 5 on a 1-5 numerical rating, with the lowest rating being a 4). Fellows felt that they had received a considerable amount of support and experience enabling them to develop as teachers and scholars. However, despite having half the teaching load of a

regular faculty member, Fellows nevertheless felt that teaching, individualized instruction, and community service had taken more time away from scholarship and artistic activities than they had anticipated.

These concerns are encapsulated in comments by Fellows on their annual reports such as:

- *“Even though I have a lesser teaching load, I find I’m putting in extra teaching time in part because that’s the campus ethic. I want to be very available and helpful to my students. This flows over into student extra-curricular requests—in my desire to be an active member of the campus community I say ‘yes’ to most student requests.”*
- *“Greater emphasis on teaching than on scholarship/creative output: program materials tend to emphasize teaching – the teaching mentorship is great, but I would like to see an equally strong emphasis on scholarship and creative work.”*
- *“It is more difficult to make progress with research without the research community that many Fellows are used to from graduate school. Though there is an explicit mechanism for the Fellows to get feedback on and help with their teaching, the feedback on and help with research is mostly through informal interaction with the mentor(s). It might increase the research output of Fellows if their research progress were aided through some explicit mechanism, similar to how their teaching is evaluated and discussed with the mentor.”*

Thus, even within this program structured to make the transition to an academic career easier, at least some Fellows felt burdened by competing demands. Learning how to balance such demands is perhaps the most important thing Fellows can learn that will help them to forge successful academic careers; however, Fellows urged more emphasis in the program on scholarship, perhaps by limiting individualized instruction to topics directly related to their research.

Another source of information is the perception of Lawrence faculty, based on their responses to a question about whether the Fellows program achieves the goal of providing research collaborations that better prepare Fellows for subsequent academic careers at elite liberal arts colleges. The program was rated good or excellent at providing such collaborative opportunities by 57% of faculty respondents, while 22% rated it as only fair or poor at doing so. Thus, echoing Fellows’ concerns about scholarship, faculty also perceived the Fellows as receiving fewer opportunities to enhance their scholarship relative to their teaching.

To summarize whether the program helps Fellows obtain the *skills* necessary to achieve *excellence* in teaching and research in tenure track positions, the answer appears to be an emphatic “yes” with respect to teaching. However, with respect to scholarship and artistic

development the Fellows' reactions are more mixed. On the one hand, Fellows appear to have been productive and to have benefited from a lower teaching load, yet many nevertheless seemed to feel that they had not been able to devote as much time to research or artistic endeavors as they had hoped. Part of this may simply be due to the realities of the limits in resources and time available for research within a liberal arts as opposed to a research university setting. However, the Fellows would generally like to see an increased focus on their development as scholars and artists within the program, which has been more adept at and attentive to promoting teaching development. Faculty appear to concur with this assessment, rating the Fellows program very favorably regarding the goal of providing mentoring and teaching opportunities, but less favorably (though a majority still rated the program as good or excellent) at providing research collaborations.

2. Does the program generate greater intellectual excitement on the Lawrence campus?

The question of whether the presence of the Fellows increases intellectual excitement at Lawrence is best assessed through the student and faculty surveys. The surveys specifically asked faculty and students to rate the Fellows program in terms of (a) its overall contributions to campus intellectual and/or artistic life and (b) increasing students' enthusiasm for learning. Both the faculty and students responded favorably to these questions. The first most directly assesses perceptions of increased intellectual excitement. In response, 79% of the faculty and 76% of students (the average for both years) rated the program as good or excellent on this dimension, with only 4% of faculty and about 9% of students rating it as fair or poor. Thus, there seems to be consensus, from both faculty and student perspectives, that the program has enhanced the campus's intellectual life. Both faculty and students also felt that, on the whole, the Fellows program had a positive effect on increasing students' enthusiasm for learning, with 68% of faculty and about 60% of students rating the program as good or excellent, with fewer than 14% of faculty and 18% of student rating it as fair or poor.

Further analyses of these data were conducted where students were partitioned by class level and faculty were partitioned by academic rank. Tables 5 and 6 contain the student ratings for intellectual excitement for the two years of the study. For both years, a lower percent of freshmen give the Fellows an excellent or good for increasing the intellectual excitement on campus compared to sophomore, juniors, and seniors. This may be due to upper class students

having more classes and exposure to Fellows. And except for sophomores in 2005/06, approximately 80% of upper class students give the Fellows an excellent or good for increasing intellectual excitement.

Table 5. 2005/06 Rating for Increasing Intellectual Excitement by Student Class Level

| Rating | Freshmen | Sophomores | Juniors | Seniors |
|----------------|----------|------------|---------|---------|
| Excellent/Good | 60.0% | 67% | 79% | 83% |
| Satisfactory | 20.0% | 15% | 18% | 9% |
| Fair/Poor | 20.0% | 19% | 4% | 9% |

Table 6. 2006/07 Rating for Increasing Intellectual Excitement by Student Class Level

| Rating | Freshmen | Sophomores | Juniors | Seniors |
|----------------|----------|------------|---------|---------|
| Excellent/Good | 67% | 79% | 83% | 79% |
| Satisfactory | 15% | 18% | 9% | 13% |
| Fair/Poor | 19% | 4% | 9% | 8% |

As Table 7 shows, there does not appear to be much difference in the faculty ratings for intellectual excitement. As with upper class students, approximately 80 of assistant, associate, and full professors rate the Fellows program as excellent or good for increasing intellectual excitement. And it is interesting to note that no assistant professor who completed the survey rated the Fellows program as fair or poor on the question.

Tables 8 and 9 contain students' ratings of whether Fellows generally increase student enthusiasm for learning (for survey responses in 2005/06 and 2006/07). As with intellectual excitement, freshmen tend to give lower ratings than upper class students, particularly in 2005/06. On the other hand, approximately 70% of upper class students in both surveys rate the

Fellows as excellent or good for increasing enthusiasm for student learning while less than 20% rated them as fair or poor.

Table 7. 2006/07 Rating of Increasing Intellectual Excitement by Faculty Rank

| Rating | Assistant Professor | Associate Professor | Professor |
|----------------|---------------------|---------------------|-----------|
| Excellent/Good | 82% | 79% | 78% |
| Satisfactory | 18% | 14% | 19% |
| Fair/Poor | 0% | 7% | 4% |

Table 8. 2005/06 Rating for Increasing Student Enthusiasm for Learning by Student Class Level

| Rating | Freshmen | Sophomores | Juniors | Seniors |
|----------------|----------|------------|---------|---------|
| Excellent/Good | 48% | 64% | 78% | 70% |
| Satisfactory | 22% | 18% | 13% | 13% |
| Fair/Poor | 30% | 18% | 9% | 17% |

Table 9. 2006/07 Rating for Increasing Student Enthusiasm for Learning by Student Class Level

| Rating | Freshmen | Sophomores | Juniors | Seniors |
|----------------|----------|------------|---------|---------|
| Excellent/Good | 64% | 78% | 70% | 64% |
| Satisfactory | 18% | 13% | 13% | 19% |
| Fair/Poor | 18% | 9% | 17% | 17% |

The faculty ratings for increasing student enthusiasm for learning probably show the most variation across faculty ranks. While there tends to be some consistency in the excellent or good ratings across ranks (73% vs. 68%, vs. 65%), the percent figures for the other two rating

categories by rank are substantially different. That is, a substantially higher percent of professors gave a satisfactory rating than assistant professors while a substantially lower percent of professors gave a fair or poor rating than associate and assistant professors.

Table 10. 2006/07 Rating for Increasing Student Enthusiasm for Learning by Faculty Rank

| Rating | Assistant Professor | Associate Professor | Professor |
|----------------|---------------------|---------------------|-----------|
| Excellent/Good | 73% | 68% | 65% |
| Satisfactory | 7% | 16% | 27% |
| Fair/Poor | 20% | 16.0% | 8% |

Narrative comments support the notion that the program has added intellectual excitement. Among faculty one of the overarching themes concerning the benefits of the Fellows program was its enhancement of the intellectual environment and academic programs of the university. The vast majority of comments point to how the Fellows bring new perspectives and experiences to the campus and the classroom. Typical statements along these lines were: *“Having recent PhDs helps broaden the level and range of intellectual enthusiasm here at Lawrence”*; *“The program brings new and exciting professionals and ideas to the campus, and translates in a wider community of learners and teachers”*; and *“The Fellows program revitalizes the professoriate and the curriculum by bringing enthusiastic young scholars from top graduate programs to our campus to work with us and our students.”* Such statements reflect the sentiment expressed in the majority of faculty comments.

Students also provided comments suggesting that they found the Fellows program to increase intellectual enthusiasm because it *“...gives students an opportunity to experience a wider scope of views and knowledge within a field, especially if the department is small,”* *“refreshes and renews the campus,”* *“[is] really good to have new people teaching on campus who have different perspectives and teaching styles than the professors who are already here,”* and *“[the program] brings a diverse spectrum of ideas and research,”*

In summary, the Fellows program appears to have met the goal of increasing intellectual excitement, both among faculty and students. The infusion of a relatively large (given the size of the campus and faculty) pool of recent PhDs has broadened the intellectual community at Lawrence, fostering greater intellectual engagement and excitement.

3. Does the program result in new ideas and techniques (e.g. lab procedures, performance innovations) being introduced more quickly and sustained in the academic and/or research programs?

Here we concentrate on transfers of knowledge that go beyond the introduction of courses new to the curriculum, bringing knowledge, techniques, artifacts, and/or technology to Lawrence that might otherwise not appear on campus as quickly (or at all) if not for the Fellows program. These include a wide range of contributions; for example, informing faculty and students about a new theory or technique (in the lab or studio), purchasing and training faculty and students on new software, bringing in a collection of artifacts (e.g., fossils or specimens) that remain at Lawrence.

In their annual reports, Fellows give examples of a variety of such contributions. These included new computer software for: analyzing music performances, constructing and running computer-administered psychology experiments, saving images written on whiteboards during class, composing original music and creating musical notation, engineering and design in Physics. Fellows also introduced and trained students and faculty on new techniques, including: new dance and movement techniques for Theater and Drama students, new ways of teaching the core Gender Studies course (normally co-taught by multiple faculty), morphological and molecular analyses for estimating evolutionary relationships among organisms in Biology, fossil preparation techniques in Geology.

In both the faculty and student surveys, respondents were asked to rate “any transfer of knowledge (e.g., new content areas), laboratory or performance techniques, or technology (e.g., equipment or software, artifacts, new applications) to Lawrence for which the Fellows are responsible.” Both the faculty and the students generally rated these transfers of knowledge or techniques to be good or excellent, with 73% of faculty and over 90% of students giving these ratings. Only 14% of faculty and fewer than 3% of students rated the contributions of Fellows on

this dimension as fair or poor. Thus, students seemed to be particularly aware and appreciative of the new ideas, techniques, and technologies that Fellows introduce.

In their narrative comments on the survey, students frequently cited specific new ideas or theories they had been exposed to by Fellows (e.g., Terror Management Theory in Psychology, Queer Theory in Gender Studies, game and social choice theories in Economics). Students also cited specific techniques they had been taught by Fellows (e.g., mime and movement techniques in Theater, bioinformatics in Biology, Japanese pottery techniques in Art, techniques for preparing fossils in geology). Additionally, students cited new hardware, that was introduced at least in part because of Fellows (who not only precipitated their purchase but oversaw their installation), that will remain at Lawrence, such as the plasma centrifuge in Physics and a gas-fired ceramics kiln in Art.

Therefore, the Fellows program appears to have been successful at increasing the transfer of new ideas, techniques, and equipment to Lawrence. There are many examples of such transfers, and both faculty and (especially) students seem to be aware that they are occurring.

4. Does the program increase the number of professional collaborations between Lawrence faculty and Fellows in teaching, research, or both after completion of the fellowship?

The Fellows program has not existed long enough to establish whether continuing collaborations occur between faculty and former Fellows. However, it is clear that many faculty and Fellows have begun collaborations that are likely to result in professional relationships that last beyond the fellowship period. First, based on the faculty survey, a total of 38 Lawrence faculty reported having been involved in collaborations with Fellows. Further, they were generally very positive in their ratings of these experiences with about 82% rating them as good or excellent and only 5% rating the collaboration as fair or poor. Some of these collaborations have already resulted in professional presentations and (planned or already achieved) publications. For example, the Fellow in Psychology is a co-author with one faculty member on a paper that has been accepted for publication in the *Personality and Social Psychology Bulletin* and co-author with a another Lawrence faculty member on a paper recently submitted to another journal, with more joint work in progress that could lead to future publications. The Fellows located in the Conservatory have collaborated with a number of faculty in creating music pieces

designed for faculty and students. The Fellow in Theatre has also collaborated closely with faculty in co-directing plays and operas. Collaborations with faculty have also occurred in the area of teaching. For example, the Fellows in Biology and Physics have co-taught introductory level courses with faculty in their respective departments, and a Fellow in the Conservatory shared an upper division performance course with a Conservatory faculty.

Moreover, Fellows have collaborated with each other on research projects and teaching. Three Fellows in the Conservatory, Geology, and Biology worked together writing a composition reflecting how scientists try to understand the natural world. And the Fellows in Philosophy and Physics co-taught a new interdisciplinary course on the some key physics breakthroughs of the 20th Century and their philosophical implications.

In sum, although it is not possible to directly assess whether collaborations between Lawrence faculty will continue with former Fellows once they have left Lawrence, many collaborative relationships have been established between Fellows and faculty and the faculty have rated these collaborations highly. Additional collaborations have occurred among the Fellows. As one Fellow stated, *“This collaboration has been wonderful for all of us. One of the things I enjoy most about Lawrence is the opportunity to work with people from such diverse fields – I have been inspired by the others working on this project. The energy and enthusiasm when we get together to work on this is incredible.”* Given the many technologies (e.g., email) that allow academics to remain in touch, we suspect that many of these relationships will continue into the future.

5. Does the program spur greater numbers of research opportunities for our students as well as other forms of student-faculty collaboration?

In addition to the collaborations among Fellows and faculty, there have been a number of opportunities for students to work with Fellows. In the 2005/06 survey, 65 students indicated they had collaborated with Fellows. Of these 65 students, 11% were freshmen and sophomores, 35.4% were juniors, and 27.7% were seniors. In the 2006/07 survey, 195 students indicated they worked with Fellows, of which 11% were freshmen, 24.6% sophomores, 31.3% juniors, and 33.3% seniors. When these students were asked to rate the contribution of the collaboration with a Fellow to their academic program, over 80%

of the 2005/06 respondents and almost 70% of the 2006/07 respondents rated the collaborations as excellent or good.

Students were asked to explain/comment on their collaborations with Fellows. The following comments are illustrative of the quality of these collaborations:

- *“We worked together, though not for credit, to prepare a paper of mine for presentation at the..... regional meeting. She was very helpful in not only helping me refine the academic material but also in how to prepare for a conference environment. It was a very positive experience and has really gotten me excited about doing further upper-level work!”*
- *“Outside of a classroom situation, my experiences with Fellows has been very positive. They are extremely knowledgeable in their fields and eager to share what they know.”*
- *“The fellow has helped me with my research project by offering advice (since it was quite recently that she was doing her own research project). She has also helped me with career and graduate school advice...”*
- *“I get the sense that the fellows seem to act best as encouragers and mentors of projects that students have brewed up themselves. It's very much about students initiating some neat idea, like a one-act play or a scientific journal club, with responses from the fellows that... end up propelling students to go way above where they might have otherwise.”*

Based on the annual reports submitted by the Fellows, the types of collaborations with students vary considerably. They included performances and concerts, theatrical productions, honors projects, and research projects from tutorials and independent studies. Other less formal collaborations, but still examples of interactions among Fellows and students, included founding clubs (e.g., Women in Physics) and film series, participating in student-organized volunteer activities, and coaching in recreational clubs. While these activities may not carry the same academic value as research and scholarly activities, they do point to the involvement of the Fellows in many aspects of the students' lives which, from a liberal arts perspective, has educational benefits.

In sum, Fellows and students do collaborate on a variety of projects and the data indicate that the collaboration involve students from all class levels. And while many of the projects were curricular, there were also many extra-curricular collaborations.

6. Does the program achieve greater curricular diversity without compromising the small class sizes students currently enjoy?

One of the major advantages of the Fellows program is to provide students with a greater range of course topics. By virtue of their disciplinary areas, interests, and perspectives, each Fellow has specific teaching and research interests that help expand the current curriculum offered by departments/programs. Thus, even though the Fellows may have taught a course already listed in the catalog, their approach to the topic and pedagogical philosophy undoubtedly will be, to a certain degree, different than their faculty colleagues. Moreover, while Fellows were not required to offer tutorials and independent studies, they often did so. Each tutorial and independent study added to Lawrence’s curricular diversity.

Table 11 contains the types of courses offered by the Fellows. It is clear from these data that the Fellows offered a variety of courses across all levels of the curriculum. It is interesting to note that the 23 new courses (which are counted in the introductory and upper division course) taught by the Fellows represented 36% of all the courses they taught, excluding tutorials and independent studies. If one defines tutorials and independent studies as new courses and include them in the total number of courses, 60 out of 101 or 59% of the courses taught by the Fellows could be seen as new courses.

Table 11. Types of Courses taught by Fellows

| Introductory | Upper Division | Tutorials/Independent Studies | New Courses |
|--------------|----------------|-------------------------------|-------------|
| 38 | 26 | 37 | 23 |

There was no indication from course records that the class sizes of the courses taught by the Fellows were any larger than courses taught by other faculty. The average class size ranged from a low of seven students in Art classes to a high of 49 students in introductory Physics classes. Overall, the average class size for all courses taught by Fellows during the 2005/06 and 2006/07 academic years, not including tutorials and independent studies, was 19 students.

The summary of the curricular diversity question is very straight-forward. The Fellows taught a variety of courses across all levels of the curriculum with over one-third of them being new to the curriculum. And with the inclusion of the tutorials and independent studies, it is very clear that the curriculum at Lawrence became more diverse with the presence of the Fellows.

7. Does the program allow Lawrence faculty to teach a larger number of advanced courses and/or engage in more one-on-one instruction (tutorials, etc.) that heretofore have been impossible due to time, money, or personnel constraints?

This question is fairly difficult to answer with direct evidence. The types of courses that Lawrence faculty teach depend on a number of factors. These include the number of majors and minors in a program, demand for general education courses, leaves of absence and sabbaticals, retirements, and so forth. Therefore, even if faculty did teach more advanced courses or one-on-one instruction during the past two years, it would almost impossible to attribute it to the presence of the Fellows.

The evidence we do have that may address this question is more indirect and relates to data for question 6 on the curricular diversity. Fellows taught 38 introductory and 26 upper division courses during the past two years. In the simplest of all worlds, that would mean that the 64 courses would not have to be taught by faculty and they could devote their time to advanced and individualized instruction. To complicate this somewhat, 23 of these courses were new to the curriculum. This would mean that the 41 courses taught by the Fellows could allow faculty to teach advanced and individualized instruction. Yet, faculty may be needed to teach additional sections of these courses and, as mentioned above, some faculty co-taught with the Fellows. And, one of the hallmarks of Lawrence's philosophy is the individualized approach to education. This means that many Lawrence faculty would already be offering individualized instruction regardless if the Fellows provided the time to do so. Therefore at this point, we cannot offer an accurate number of advanced courses and individualized instruction that faculty taught because of the teaching responsibilities of the Fellows. All we can say is that it reasonable to assume the Fellows did provide some

“degrees of freedom” for faculty to offer more courses than would not have been possible without the Fellows program.

8. Does the program improve the quality of student advising for graduate school?

In both the 2005/06 and 2006/007 surveys, students were asked what sources they used to obtain information on graduate and/or professional schools. For those students who reported seeking information about graduate school, Table 12 breaks down the percent of students who sought advice from various sources available at Lawrence, including the Fellows. These percentages reflect the fact that students typically use multiple sources to gain information about graduate/professional schools, so that column and row totals exceed 100%. While faculty advisors and faculty who are not the student’s advisor are clearly the most prevalent and obvious source of information, it is encouraging to see that the Fellows are frequently asked about graduate/professional schools; in the 2005/06 this occurred at a level similar to the percent seeking advice from the Career Center (33% vs. 35%, respectively).

Table 12. Sources of Information about Graduate/Professional Schools

| Sources | 2005/06 (N=66) | 2006/07 (N=118) |
|---------------------------|----------------|-----------------|
| Alumni | 26% | 26% |
| Career Center | 35% | 34% |
| Faculty Advisor | 77% | 69% |
| Fellows | 33% | 20% |
| Faculty (not advisor) | 65% | 66% |
| Staff (not Career Center) | 13% | 9% |

Another set of questions asked in the two student surveys measured the type of information provided to students about graduate/professional school. The different types of information included providing information about which tests need to be completed, helping to identify specific programs to which the students could apply, writing letters of recommendation, providing feedback on personal statements and essays submitted in the students' applications, providing hints and suggestions on what to include in the application, and helping students identify ways in which their future education could be financed. As can be seen in Table 13, the Fellows provided a variety of assistance to the students who sought information. In 2005/06, 82% of those students sought advice from the Fellows on identifying graduate/professional programs. Fellows were also used as a source of ways to finance future education most likely because of their experience in financing their own graduate education. In 2006/07, more students sought advice from Fellows (44%) than any other single source of information for identifying programs and were actively involved in writing letters of recommendation at a level comparable to faculty. When one combines the data from Tables 12 and 13, it is clear that the Fellows are an important source for a variety of assistance and information for a significant number of students who are interested in graduate/professional school.

Finally, a question appeared on the 2005/06 survey that asked students to rate the quality of the advice received by the sources of information. On a scale of 1) poor to 5) excellent, the average rating for Fellows was 4.55, equal to the rating for alumni and slightly higher than the 4.40 and 4.47 rating for faculty advisors and non-advisors, respectively.

Taken together, these data indicate that students do view the Fellows as a viable source of information about future career education. They are involved in virtually all aspects associated with the process of applying for graduate/professional programs. It should be mentioned here that the Fellows do not formally advise students. The time and energy they invest in students interested in graduate/professional school is strictly voluntary and speaks to their interest in and commitment to helping students with this aspect of their education. And based on the students' evaluations, they do a very good job.

**Table 13. Type of Assistance from Sources
2005/06 (N=66)**

| Sources | Testing Recommendations | Identify Programs | Letter of Recommendation | Feedback on Statements | Application Help | Ways to Finance |
|---------------------------|-------------------------|-------------------|--------------------------|------------------------|------------------|-----------------|
| Alumni | 21% | 86% | 14% | 0% | 43% | 29% |
| Career Center | 45% | 60% | 5% | 30% | 50% | 10% |
| Faculty Advisor | 38% | 74% | 54% | 18% | 33% | 18% |
| Fellows | 6% | 82% | 12% | 12% | 29% | 35% |
| Faculty (not advisor) | 28% | 67% | 47% | 19% | 25% | 35% |
| Staff (not Career Center) | 20% | 60% | 40% | 0% | 0% | 0% |

2006/07 (N=118)

| Sources | Testing Recommendations | Identify Programs | Letter of Recommendation | Feedback on Statements | Application Help | Ways to Finance |
|---------------------------|-------------------------|-------------------|--------------------------|------------------------|------------------|-----------------|
| Alumni | 16% | 37% | 5% | 0% | 25% | 16% |
| Career Center | 18% | 27% | 1% | 16% | 29% | 10% |
| Faculty Advisor | 17% | 34% | 21% | 8% | 15% | 5% |
| Fellows | 8% | 44% | 23% | 5% | 15% | 5% |
| Faculty (not advisor) | 11% | 36% | 27% | 8% | 13% | 7% |
| Staff (not Career Center) | 16% | 42% | 11% | 11% | 5% | 16% |

9. Does the program better connect students with faculty who teach in graduate programs?

The data presented above suggests that the Fellows do play a role in assisting students with their preparation for graduate/professional school. Another aspect of this preparation is helping students make contact with faculty from graduate/professional programs. Table 14 shows the percent of students in the 2005/06 and 2006/07 who answered the questions about graduate/professional school that indicated they were given the names of faculty.

Table 14. Contact with Faculty in Graduate/Professional Schools

| Sources | 2005/06 Faculty Contact (N=51) | 2006/07 Faculty Contact (N=101) |
|---------------------------------|---|--|
| Alumni | 18% | 12% |
| Career Center | 3% | 7% |
| Faculty Advisor | 35% | 32% |
| Fellows | 24% | 15% |
| Faculty (not advisor) | 33% | 30% |
| Staff (not Career Center) | 0% | 5% |

As shown in the data discussed for question 8, faculty (both advisors and non-advisors) are the primary source for names of graduate/professional school faculty. The next most frequent source for faculty contact were the Fellows with 24% of the students in 2005/06 and 15% in 2006/07 that named the Fellows as sources for faculty contact. This is another example that

the Fellows are viewed by students as an important conduit for information about future educational opportunities.

10-12. Does the program lead to more and stronger connections between Lawrence and research universities? Does the program garner greater recognition of Lawrence among faculty at research universities? Does the program enhance Lawrence's academic reputation among faculty at research universities?

Questions 10-12 are viewed as long-term objectives of the program. Because the missions of the two types of institutions are different, it takes time for liberal arts schools to develop connections with research universities. And as connections are made, one would anticipate greater recognition of Lawrence and an enhancement of its reputation. In its first two years, the Fellows program has helped Lawrence with these objectives. For instance, we asked the Fellows to identify the most appropriate person at their degree-granting institution (e.g., graduate advisor or mentor) to whom we could send a short survey about their impressions and opinions of Lawrence and the Fellows program. Of the 12 people that were contacted, seven responded to the survey. While this is a small number of respondents, the results from the survey are promising. As Table 15 indicates, the Fellows program has increased the respondents' awareness and opinion of Lawrence. Almost all of the respondents indicated that the Fellows program had strongly increased the favorability of their opinions about Lawrence and that they would recommend that other graduate students seek out a Fellows position at Lawrence. These graduate advisors and mentors not only appear to be interested in having their future graduate students apply to the Fellows program, but also would look more favorably on Lawrence students applying to their graduate program. This sort of reciprocal relationship is a very good start to developing connections between Lawrence and research-oriented institutions. And overall, 71% of the respondents reported having a high opinion of the Lawrence Fellows program. Unfortunately, but as expected, it is too early in the Fellows program to really produce strong interest for establishing tangible relationships.

Table 15. Impressions and Opinions of Graduate Advisors/Mentors

| Question | Extremely/Very Much | Somewhat | Slightly/Not at All | No opinion |
|---|---------------------|----------|---------------------|------------|
| Has the Fellows program increased your awareness of Lawrence? | 72% | 14% | 0% | 4% |
| Has the Fellows program increased the favorability of your opinion about Lawrence? | 86% | 0% | 0% | 14% |
| Are you more likely to recommend that other graduate students who are interested in careers at liberal arts institutions apply to be Lawrence Fellows | 86% | 0% | 0% | 14% |
| Has the Fellows program increased your interest in having Lawrence students apply to your graduate program? | 57% | 29% | 0% | 14% |
| Has the Fellows program led to stronger connections between Lawrence and your institution? | 14% | 14% | 43% | 29% |
| Has the Fellows program increased your interest in establishing connections with Lawrence? | 17% | 33% | 33% | 17% |
| How favorable is your overall opinion of the Fellows program? | 71% | 14% | 0% | 14% |

The Fellows have also helped to connect Lawrence with other institutions by inviting colleagues from other schools to Lawrence. Throughout the two years researchers/scholars from Duke University, Boston University, Arizona State University, University of Minnesota, University of Chicago, and Skidmore College have presented lectures and/or worked with Lawrence faculty and students. Prominent musicians and composers from Hong Kong, New York City, and Amsterdam have also worked with faculty and students, resulting in the important international connections that would undoubtedly not be made without the Fellows.

Finally, Lawrence’s profile and reputation should be substantially enhanced by a conference to be held at Lawrence in late October, 2007. This conference is titled “*The Role of*

Liberal Arts Colleges in the Changing Landscape of the Professoriate.” During the past 20 years there has been an increasing volume of literature focusing on the preparation of doctoral students for careers in the professoriate. The impetus for this attention from scholars, researchers, policy makers, and other stakeholders stems from the growing recognition that doctoral preparation and training as historically conceptualized are not consonant with the expectations, demands, and challenges that characterize 21st-century higher education. It is clear that the landscape of the professoriate is changing and that a range of higher education institutions — from liberal arts colleges to doctoral research universities — should contribute to the support and definition of this transformation. We view the Lawrence Fellows program as an example of how a liberal arts and sciences school can participate in this transformation.

The conference’s keynote speaker will be Dr. Ann Austin from Michigan State University. Dr. Austin is a prominent researcher in the area of organizational change and transformation in higher education and is co-author of *Paths to the Professoriate: Strategies for Enriching the Preparation of Future Faculty*. We believe her participation in the conference will draw national attention to Lawrence and the conference. Another presenter at the conference is Alyson Reed, the Executive Director of the National Postdoctoral Association. Other presenters come from schools such as the University of Wisconsin-Madison and Indiana University-Purdue University (IUPUI).

Given enough time, we believe the Fellows program will make a significant contribution to establishing the connections and collaboration with research universities and other types of schools that will enhance our academic reputation and profile. As more and more Fellows come to campus and others move on to pursue their professional careers in higher education elsewhere, the name “Lawrence Fellow” will always be part of their educational credentials. This can only have beneficial consequences for Lawrence.

13. Does the assessment plan, as currently structured, enable the college to evaluate over the long term whether the program results in the Fellows persisting and succeeding in academic careers? What additional mechanisms, if any, might be needed to track the Fellows’ careers?

The Lawrence Fellows program will be in its third year in 2007/08. And with the inclusion of the new cohort in Fall 2007, 19 Fellows will have been part of the program. Of

the eight original Fellows who were appointed in Fall 2005, one Fellow left after the first year for a tenure-track position at Lafayette College. Another Fellow in the first cohort will be starting a tenure-track position at Carthage College in Fall 2007. Two other Fellows from the first cohort decided to leave after their second year. One left for a Fellowship at Yale University and the other received a research post-doctoral position at Aarhus University in Denmark. The remaining four Fellows will be continuing for a third and final year at Lawrence. In the second cohort, one Fellow accepted a tenure-track position at Lawrence after his first year. Another Fellow took a long-term visiting professor position at Union College that has the promise of leading to a tenure-track job there. The other three fellows in this cohort will be returning for their second year. Therefore, five of the 13 Fellows in the first two years have left Lawrence but only one has been gone for more than one year.

We fully intend to follow the careers of our Fellows and will be developing a one-, three-, and five-year survey to collect information on the progress of their careers. We will be most interested in whether the Fellows eventually become part of an academic institution and whether their experiences as a Lawrence Fellow contributed to their professional development. In addition, Lawrence has a tradition of inviting alumni back to campus to learn more about their “life after Lawrence.” To that end, we will be exploring the possibility of having a “Lawrence Fellows Reunion” after five or ten years and/or start a lecture series where former Fellows would be invited back to Lawrence for a formal presentation to the campus.

This concludes the presentation of data and information for the thirteen research questions that formed the basis of our evaluation of the Lawrence Fellows program. Before moving to a discussion and summary of the findings, we present a summary of the narrative comments that faculty and students provided on the surveys they completed. Some excerpts from these comments were mentioned earlier but, when taken together, this more extensive summary of the comments provides a deeper analysis of the program’s impact on campus.

V. Summary of Comments

Faculty in the survey were asked to comment on the benefits of the Fellows program, concerns they have about the program, and ways in which the program could be improved. When

analyzing these comments, the results were partitioned by rank to determine if different themes emerged based on academic rank (professor, associate professor, assistant professor). For the most part, all of the themes discussed below appeared in the comments of faculty from all ranks.

a. Benefits

The overarching theme for the benefits of the Fellows program pertained to how the Fellows contribute to the intellectual environment and academic programs of the university. The vast majority of comments point to how the Fellows bring new perspectives and experiences to the campus and the classroom. The ability of the Fellows to help departments expand their curricula and contribute to programmatic needs by offering courses in the Fellows' research areas were seen as a positive contributions. Statements mentioned above include "*Having recent PhDs helps broaden the level and range of intellectual enthusiasm here at Lawrence*", and "*The Fellows program revitalizes the professoriate and the curriculum by bringing enthusiastic young scholars from top graduate programs to our campus to work with us and our students.*" These comments reflect the sentiment expressed in the majority of faculty comments.

Two other themes emerged from the faculty comments concerning the benefits of the Fellows program. The first has to do with how the program benefits Fellows, rather than Lawrence. This is reflected in a comment that focuses on the central goal of the program:

"The Fellows provide a way for Lawrence to extend its mission as a community of liberal arts teachers and scholars. The question should not be what the Fellows do for Lawrence but what Lawrence does for the Fellows. It provides them the opportunity to learn about life as a liberal arts professor and an introduction to the ideal of a liberal arts community of scholar/teachers."

And as expressed by one faculty member, "*The program is great at giving young scholars a place to learn how to teach and refine their pedagogical skills.*"

Second, the Fellows program was viewed as a way of increasing Lawrence's visibility in the wider higher education community. Faculty commented that the Fellows program "*rais[es] Lawrence's profile among liberal arts colleges and at research universities*" and "*At professional conferences, Lawrence University is often confused with St. Lawrence University.....The Fellows program.... may help with name recognition so candidates would consider applying here.*" Such comments speak to the public relation impact of the program.

b. Concerns

The first concern mentioned by a number of faculty was that resources allocated to the Fellows program might be better used by hiring new tenured-track faculty. This concern was expressed with different levels of fervor from *“My only concern with the Fellows program is that it serves as a temporary solution to a real problem: the need for more tenure track faculty”* to *“I believe that the fellows program is a poor use of Lawrence's resource...I think that we should focus instead on raising funds for more tenure-line faculty.”* Thus, the Fellows program is seen by some faculty as a temporary solution to a growing need for more faculty.

Second, as mentioned in the “Program Description” section, Fellows’ positions differ significantly from that of tenure-line faculty. Fellows have a reduced teaching load (one course per term), do not formally advise students, and have no formal service obligation. This difference in responsibilities resulted in frustration and low morale among junior faculty and adjunct professors, who feel that they do more for the university without being recognized as much as the Fellows for their efforts. The following statement summarizes this sentiment:

“New tenure-track faculty can bring to the campus knowledge of the latest developments from graduate programs AND can offer more courses per year than fellows do and can serve as advisors and contributors to departmental and campus-wide service in essential ways.”

It is important to note that this concern was not limited to statements made by junior faculty. Rather, faculty from all ranks recognized the tension created within the ranks by having people with “special” or “hybrid” appointments.

The third concern prevalent in faculty comments related to the administration and structure of the Fellows program. This concern revolves around three issues. The first is the administrative location of the program. As initially conceptualized, the Fellows program was administratively located in the President’s office and run by the Fellows Committee, which was chaired by a faculty member appointed by the President and composed of faculty across the campus. Some faculty suggested that the program should be administered through the Provost’s office, reasoning that Fellows are teaching faculty and should therefore be under the academic division of the university. Statements such as *“If the Provost were responsible for the Fellows program, the fellows could be more fully integrated into the campus community”* and *“Do not*

leave this program with a faculty committee” capture this issue. This move occurred in spring 2007.

The second administrative issue concerns selection of the Fellows. Some faculty believe that by changing the administrative location of the program, departments would have greater oversight of the Fellows and the selection process would place greater weight on the curricular needs of the academic programs than previously has been the case. *“It seems to me that the department, rather than the committee, is the best judge of the credentials of the fellow”* and *“It is inappropriate for a committee of faculty members to be responsible for hiring and for overseeing people who are essentially faculty members”* are examples. Because the Fellows program sets up a hiring competition between departments (none of whom are guaranteed a “slot”), departments whose candidates were given lower priority rankings by the Fellows Committee may be dissatisfied by the process. Whether moving the administration of the program into the Provost’s office will lessen this tension remains to be seen. Such tensions may be inevitable in a program where departments compete for hiring slots and an external agent assesses which departments have made a stronger case. Further, a shift to weighing departmental need over simply getting the best quality candidates, regardless of which departments these candidates would be in, poses a potential threat to what is unique about the program, shifting it more toward an adjunct faculty or sabbatical replacement model. Such trade-offs will have to be carefully assessed as the program continues under the Provost’s administration.

The third issue relates to the structure of the program, particularly the types of courses taught by Fellows. According to the data presented earlier, Fellows have taught not only upper division courses and/or courses specifically related to their research area but also introductory courses. Some faculty believe that Fellows should be teaching more introductory and core level courses.

“I think that fellows would often benefit more from teaching core courses in their field, given the need of most colleges and universities. We need to clarify for fellows and current faculty an expectation that their courses will be of service to the college or conservatory, as well as offering them valuable experience in teaching.”

Other faculty suggested that Fellows should not teach introductory courses in their first year, unless they are team-taught with a tenure-track faculty member, nor should Fellows be required to teach introductory courses every year. Fellows have already successfully taught introductory

courses and participated in Lawrence's signature Freshmen Studies program, but the costs of a poor performance by a Fellow in a large introductory course is high for the large numbers of students in these courses, the department, and the reputation of the program (especially since some suspect that Fellows are more like "teaching assistants" than "real professors"). The issue of how best to allocate Fellows to different types of courses has been discussed frequently among the Fellows Committee, Provost, and President. The current recommendation to departments is that Fellows ought to get experience teaching lower-level courses, but probably not in their first year (unless team-teaching with faculty). More generally, differences in opinions about what Fellows should teach should be further discussed, and it is important that departmental and faculty expectations are aligned with administrative policies that weigh the best interests of all parties – students, Fellows, departments, and the University as a whole.

c. Improvements

The suggestions for improving the Fellows program build off of the concerns raised by the faculty. Some of these "improvements" could be interpreted as weakening the program, such as re-thinking the size of the Fellows program. Other suggestions are more constructive, such as more "*coordination with academic administration*", "*have more incentive to do new research in collaboration either with faculty or with students*", and "*permit Fellow to engage in off-campus research during one or two terms of the academic year.*"

Some faculty have expressed the concern that the program is at risk of straying from its initial goals and devolving into a program that uses the Fellows as adjunct professors or replacements for faculty on sabbatical. This suggests that rather than being "improved," the program needs assertively to remain focused on its original goals, that it should

"Keep the "main thing" the main thing--we are supposed to be training the next generation of liberal arts faculty. We need to focus on how we can better serve the Fellows rather than on how the Fellows might better serve Lawrence."

By contrast, other faculty suggested that one way to better prepare Fellows for tenure-track positions is to make the appointment more like a regular faculty position. As one faculty member said,

"The best preparation for their next step is to put in one or two years of full or near-full teaching load ...and this should include required and intro courses which they will have to teach at the next level at any liberal arts institution."

Another area of suggested improvement was to make the Fellows program more prominent in the university's culture. This would include greater involvement of students in the Fellows program as the following statement indicates:

“Increase communication to students about Fellows. Students are absorbed in their own lives and sometimes forget to engage with Fellows who are truly bringing something special to each Department. Perhaps Departments should be encouraged to organize lunches with their fellow for students to learn more about them and what they have to offer.”

Another faculty member offers the following intriguing way to increase the Fellows' profile on campus as well as that of assistant and adjunct professors:

[A]ll second year fellows could be required to give a talk on their scholarship or a performance or exhibition by the end of their second year. If these were set up by the beginning of the year, organized into a series, and published as a group on a flyer (as with the convocations), it would, at once give the program a higher profile on campus and emphasize the importance of the scholarly development part of the fellows program. New tenure-track faculty and continuing adjuncts could be invited to participate as well on a voluntary basis. We could call it the "Lawrence Fellows and New Faculty Colloquium".

When taken together, the majority of the responses (34 out of 37) to the improvement section of the survey indicate a desire to keep the program with modifications. Some of these changes have already occurred (e.g., administrative location of the program), others would be fairly easy to implement (e.g., lunches with students), and some will take external support to achieve (e.g., more research collaborations, off-campus research). Various suggestions, however, suggest competing directions for the program that will need continued debate.

Students were asked to comment on two topics that are particularly relevant to the evaluation of the future of the Fellows program: (a) the extent to which the Fellows program has contributed to their department's intellectual life and (b) their impressions of collaborations between Fellows and students.

Many of the students provided opinions and examples of courses offered by specific Fellows and how the Fellows provide fresh, new perspectives as evidence of their contribution to their departments' intellectual life. There were also more general statements by some students that captured the sentiments represented in such specific comments. Good examples of these comments include the following:

- *They have been instrumental to the development of several new and exciting courses. They have also presented multiple fascinating lectures on their current research. I have also had an opportunity to engage in friendly, intellectual conversations with several fellows. I think they are very personable and approachable, and I really appreciate their addition to LU.*
- *It seems like fellows are offering courses that wouldn't have been offered otherwise or freeing up a regular professor to offer something they might not have otherwise. I have also heard fellows give interesting (not course-related) talks and have had good informal interactions with them.*

Other students mentioned the new research areas and topics that the Fellows have brought to Lawrence. One student expressed it this way:

I feel that the fellows have brought a lot of the up and coming research that is being discussed in their individual areas by graduate students. This is quite motivational because it allows students to explore new controversial topics that may not have entered their textbooks yet. I also feel that the fellows are very passionate about their work as well as excited to pass on their expertise and flexible to accept new ideas- all of which are great qualities to have on staff at Lawrence. I think that the fellows will also be a great draw for new students at Lawrence

Another similar comment by a student suggests that the Fellows have a positive impact on the learning environment of departments, stating that:

The Fellows have contributed to their department's intellectual life by creating a welcoming environment to which all students from any background immediately feel comfortable and free to discuss any topic or issue. The Fellows have had a dramatic impact on offer[ing] new and creative courses which have been a great joy to partake in. It is great to have their new perspectives on topics and research opportunities and I hope the Fellow program will last a long time because it is a huge asset to both faculty and students. Whoever came up with the idea to start the program at Lawrence should get an award.

While the majority of the students' comments expressed positive and supportive opinions about the Fellows program and its effect on the intellectual environment at Lawrence, there were some students who clearly were not impressed with the program. Most of these comments have to do with the quality of teaching from the Fellows. One student echoes the positive sentiments expressed above while at the same time expressing dissatisfaction with the classroom experience by stating:

I think that the Fellows contribute to a certain extent in the intellectual life of the campus. However, this contribution does almost no good to the student if that contribution cannot be communicated through teaching. The fellows have also made it possible to offer new

courses or offer courses that would not have been otherwise offered. I think that this is great, but if the professor has a low level of comfort/experience with the course material, this could be counterproductive. I realize that programs such as the Fellows' Program are necessary for providing experience to new professors, but at a school of the caliber of Lawrence, I think that more is lost than gain overall. However, the informal relationships have been great. I have had really good personal experiences with the fellows I have interacted with, but felt short changed in the classroom

There were comments made by a few other students suggesting that the Fellows program is inconsistent with the reputation of Lawrence. Examples of this include:

- *One of the main reasons for choosing Lawrence was the excellent student-teacher ratio and the lack of TA run classes. This attention to excellence from professors is what separates Lawrence from the Ivy League and other larger college systems who do have courses that are run by TAs because of the professors' focus on their own research.....I feel that Fellows will try very hard at what they do, but it is degrading the experience that has become known as the Lawrence Difference. I have heard from other students, comments about how we are losing professors and fellows are being increasingly needed to fill the spots that they are leaving open... The introduction of Fellows will not fix the problem in the long run and will instead lower the opinion of Lawrence as an institution.*
- *I think the fellows program should be changed or gotten rid of. When I was applying to Lawrence they advertised how every class was taught by a professor, and that was important to many people. Bringing the fellows in to teach classes that were originally taught by full professors is bad, and I believe will not keep Lawrence at the highest standard. We need professors who have experience, and intentions to continue to teach, not fellows who don't have experience teaching or don't have intentions to become full professors.*

One of the more insightful comments made by a student captures the “awkward” status the Fellows have in relation to the full-time faculty that can reduce a Fellow’s effectiveness as a teacher:

They have in general had a stimulating impact on my intellectual environment--the most prominent drawback that I can articulate is the lack of teaching experience. This has in a few cases resulted in an extreme fall of productivity in the classroom. The fellows have the most to offer in informal settings, I think. The really exciting part of the fellows program for me is the presence of new ideas and new people with a lot of energy to carry out those ideas. For that reason, the fellows appear to me as colleagues who have a lot to offer in discourse on mutually interesting subjects, rather than as trained teachers. This presents something of a problem, as the fellows are treated a lot like professors, leading classes, giving lessons, etc. they are in a limbo position in between student and professor, and the confusion between the two is, I think, the cause of many of the problems I have seen.

Keeping in mind that Fellows quickly achieved course evaluations as positive as those of tenure-track faculty, these comments point out how any “stumbles” by individual Fellows in the classroom risk being generalized inappropriately to “all Fellows” because of the salience of this group as “different” from other faculty. It is interesting to note here that the percent of students who rate the Fellows program as excellent or good increases with greater exposure to Fellows, primarily in the classroom. Yet, such individual variability in performance by instructors is inevitable, but it seems particularly important to monitor Fellows closely and mentor them effectively to avoid sub-par teaching performances.

The responses concerning collaborations point to the importance of informal interactions with Fellows and the role these interactions played in furthering the academic interests of the students. Speaking about one specific Fellow, this student said:

[He]has had a major effect on my education. I've had him all three terms: for a structured class, and independent study, a tutorial, and this summer for research. I wouldn't have had the opportunity to work one on one on so many projects if he weren't here. He is also very important to me in informal interactions, for he always encourages me to further my work and test my academic limits while remaining a supportive figure.

Another characterized the Fellows as “*encouragers and mentors of projects that students have brewed up themselves*” while another pointed to the age similarity between Fellows and students as important in collaborations by saying “*I think most importantly, they are closer to us in age than most professors, so it is good to talk informally with them to see what they did for school and how they're using their education.*”

VI. Discussion and Summary

This paper has presented findings from a two-year study of the Lawrence Fellows program. The study was guided by thirteen research questions that were derived from the goals of the programs. To reiterate, the Fellows program provides recent doctoral degree recipients with mentoring, teaching opportunities, and research collaborations aimed at better preparing them for tenure-track positions in academia, especially at elite liberal arts colleges. In addition, the program is designed to enrich student learning, introduce to the curriculum and

undergraduate research programs the newest research techniques being pursued at distinguished graduate programs, enhance faculty research and performance, and further augment the university's robust offerings of one-on-one learning experiences for all students. Through the analyses of both quantitative and qualitative data, we presented evidence that the Fellows program is generally accomplishing its goals. The analysis also uncovered some areas where the Fellows program can be improved.

Based on interviews and summary reports, the Fellows view the program as a success. They are receiving invaluable mentoring and gaining direct experience in teaching courses that span all levels in the curriculum. Fellows have taught lower and upper division courses, participated in individualized instruction, and offered a number of new courses structured around their research and scholarly interests. And based on their course evaluations, the Fellows are quickly developing into high quality educators who meet the standards of elite liberal learning institutions.

The research and scholarly productivity of the Fellows has been impressive, but there remains the issue of balancing teaching, research, and service commitments. There was evidence that the Fellows appear to be doing more than expected with regard to becoming involved in individualized instruction, informal advising activities, and extra-curricular activities with students. These time commitments compete with research and both Fellows and faculty expressed the desire to re-focus the program towards providing more opportunities for research, scholarship, and artistic endeavors. At the same time, Fellows clearly benefit from their lower teaching load and, arguably, must learn how to balance competing demands on their time if they are to succeed in tenure-track academic jobs where the demands will only get heavier.

There is no doubt that the Fellows program has been well received by students and faculty. The clear majority of each group believes the Fellows have brought intellectual excitement to the campus. Students are excited about the Fellows' courses and the opportunity to collaborate with them on research and artistic projects. There were high ratings from both faculty and students for the Fellows' infusion of new ideas, techniques, and technology. And while not necessarily expected to, the Fellows made substantial contributions one-on-one instruction in tutorials and Independent Studies with students.

There were some initial thoughts at the beginning of the Fellows program that given the temporary nature of their positions, Fellows might not become involved in the culture and

rhythm of the campus, but just teach their courses and do their research. This has not been the case. In fact, the evidence presented above indicates that the Fellows quickly became acculturated and assimilated into the campus community, engaging in a wide variety of community activities, extra-curricular contact with students, and optional one-on-one instruction. Although not required to be advisers, Fellows frequently assisted students who were preparing to apply for graduate and professional schools. Students took advantage of the educational backgrounds and experiences of the Fellows as they considered different schools, prepared applications, and made contacts with faculty in graduate and professional programs.

Finally, we believe the Lawrence Fellows program has the potential to serve as a model for strengthening connections between premier liberal arts colleges and leading research universities. The Fellows program acknowledges and embraces the interdependency of these institutions and seeks to establish meaningful and mutually beneficial connections. The first two years of the program has made some strides in establishing this interdependency. Fellows have invited their colleagues from universities to give lectures at Lawrence. The graduate advisors/mentors of the Fellows expressed a very favorable opinion of Lawrence and an interest in recommending the Fellows program to their graduate students and having Lawrence students apply to their graduate programs. Further, the October conference will certainly attract people from across the country who are interested in learning more about the program.

The study did uncover aspects of the Fellows program that need to be addressed. While there is enthusiasm and support for the Fellows, some faculty believe the resources dedicated to the program should be re-directed into faculty positions, and that the administration of the program should be located in the Provost's office. The difference in appointments of Fellows and tenure-track faculty has created some frustration and low morale, especially among Assistant Professors, who arrive at Lawrence faced with a full teaching load. There are conflicting opinions about teaching expectations and a sense that the Fellows' research programs should be integrated more fully into the campus culture. The Fellows are perceived as not quite being "professors" and, by some students, as more like graduate teaching assistants, making it important to continue to educate students about the high standards used in hiring Fellows and the fact that Fellows arrive with the same kinds of qualifications as most Assistant Professors. Finally, there are students who believe the quality of teaching from the Fellow does not meet the standard they expect from an institution like Lawrence.

The concerns expressed about the Fellows program are certainly important to address and some already have been (e.g., the program is now administratively located in the Provost's office). It seems that there needs to be continuing efforts to educate everyone on campus about the exact nature, characteristics, expectations, and funding of the Fellows program. Continued communication to the campus community about these aspects of Fellows program would probably go a long way toward eliminating some of the concerns. Because the Fellows program has been in existence for only two years, it would be premature at this point to judge whether it is worth the investment of effort, time, and resources. The program needs more time to evolve and mature to determine whether it is a successful postdoctoral teaching fellowship program. Interesting enough, this is exactly the sentiment expressed by the majority of students. On average, over 70% of students want the Fellows program to continue through their college career.

VII. Conclusions

The Lawrence Fellows in Liberal Arts and Sciences is a bold and innovative program that reflects a philosophy that liberal arts and sciences institutions can play an important role in the preparation of future faculty. While new and still not completely evaluated, the Fellows program shows significant promise as a model for developing and strengthening connections between premier liberal arts colleges and leading research universities. In many ways, which have been documented in this paper, the Fellows program is a “win-win-win” situation: Fellows win, faculty win, and students win. Schools that are thinking about starting a program similar to the Lawrence Fellows program should carefully consider the results of this study in their deliberations. Lawrence University views the Fellows program as a distinctive feature of its institutional profile and academic program that serves to enhance the educational experience for all students. We believe with time and continued evaluations, the Fellows program will be an enduring feature of Lawrence.

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