WISELI’S LIFE CYCLE RESEARCH GRANT PROGRAM:
FORMATIVE AND SUMMATIVE EVALUATION

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Background

The Women in Science and Engineering Leadership Institute (WISELI) project is funded through a National Science Foundation grant for five years (2002-2006). It is one of 19 grants awarded through the NSF ADVANCE\(^1\) Program to primarily doctoral universities around the country. The long-term goal of WISELI is to ensure that the gender make-up of faculty, department Chairs, and Deans reflects the make-up of the undergraduate students. To achieve this goal, the WISELI initiative seeks to transform the UW-Madison campus into a “living laboratory” to promote gender equity for women in science and engineering through issue studies, research and evaluation, and the continuation and development of campus initiatives and programs.

One critical initiative, related to the mission of WISELI, was the creation of the Life Cycle Research Grant (LCRG) program. In the original proposal, the following describes the purpose of these grants:

Research grants will be available to women faculty at critical junctures in their professional careers (e.g. between grants, a new baby, parent care responsibilities). These grants are meant to be flexible and women may apply for varying amounts and academic purposes. (p.18)

In the original “Call for Proposals” on the WISELI website\(^2\), the following describes the program and identifies who is eligible:

In collaboration with the Graduate School, WISELI (the Women in Science & Engineering Leadership Institute) is pleased to announce the Life Cycle Research Grant Program. These funds will be available to faculty and permanent PIs at the University of Wisconsin-Madison who are at critical junctures in their professional careers when research productivity is directly affected by personal life events (e.g. a new baby, parent care responsibilities, a life-partner's illness, one's own illness). These grants are meant to be flexible and faculty may apply for varying amounts and academic purposes.

Eligibility: These funds will be available to faculty and permanent PIs at the University of Wisconsin-Madison who are members of the biological or physical sciences division, or who can demonstrate that their research is in the biological or physical sciences.

The LCRG program was initiated in the fall semester of 2002 and will continue through fall of 2005. Since its inception, four people have received grants, with another two pending approval (see Table 1).

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\(^1\) NSF SBE – 0123666, $4.75 million provided from January 1, 2002 to December 31, 2006; the ADVANCE Program is subtitled “Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers” and its mission as stated is: “The goal of the ADVANCE program is to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce” (Program solicitation).

\(^2\) http://wiseli.engr.wisc.edu
Table 1: LCRG Applicant and Grantee Information

<table>
<thead>
<tr>
<th>Application Deadlines</th>
<th># of Apps.</th>
<th># of Awards</th>
<th>Grantees</th>
<th>Grantees’ Circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/29/02</td>
<td>2</td>
<td>2</td>
<td>1 female Assistant Professor</td>
<td>Sick child, new baby, new hire</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 male Professor</td>
<td>Major surgery</td>
</tr>
<tr>
<td>3/31/03</td>
<td>6</td>
<td>2</td>
<td>1 female Assistant Professor</td>
<td>Spousal care, care of child</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 female Associate Professor</td>
<td>Major illness</td>
</tr>
<tr>
<td>3/31/04</td>
<td>6</td>
<td>2</td>
<td>1 female Assistant Professor</td>
<td>Care of child, change in marital status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 female Associate Professor</td>
<td>Change in marital status, department change, care of child</td>
</tr>
</tbody>
</table>

The LCRG program is financially supported by the original WISELI grant, along with supplementary money from The Graduate School in order to extend these grants to men and to more awardees (see Table 2).

Table 2: LCRG Program Funding Sources and Amounts

<table>
<thead>
<tr>
<th>Year</th>
<th>WISELI</th>
<th>Graduate School</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2003</td>
<td>20,819</td>
<td>14,250</td>
<td>35,069</td>
</tr>
<tr>
<td>FY 2004</td>
<td>85,585</td>
<td>28,717</td>
<td>114,302</td>
</tr>
<tr>
<td>FY 2005</td>
<td>83,313</td>
<td>22,215</td>
<td>105,528</td>
</tr>
<tr>
<td>Totals</td>
<td>$189,717</td>
<td>$65,182</td>
<td>$254,899</td>
</tr>
</tbody>
</table>

In order to understand the implementation of and impact of these grants on the recipients, evaluation activities were undertaken in 2003 and 2004. In June through August of 2003, formative evaluation of the implementation of the grant program was completed. In February through May of 2004, summative evaluation of the impact of these grants was completed with the initial four grantees. This report chronicles the results stemming from these two evaluation activities.

Formative Evaluation of the LCRG Program

As a means to understand the implementation of the LCRG grant program during its first year (2002-2003), email surveys were sent to the Principal Investigators and Executive Director of WISELI, and to the two members of the WISELI Leadership Team who reviewed applications and made recommendations about who should be awarded the grants. These five individuals were asked to reply to the following questions:
1) In your opinion, what was the original intent of WISELI's Life Cycle Research Grant program?
2) Related to Question 1, who was the grant intended to serve? For what types of “life transitions?” What was the grant money to be used for?
3) Were the applications consistent with the original intent of the LCRG program? Please explain your response.
4) Were the awardees of the grants consistent with the original intent of the program? Please explain your response.

From the responses to these questions, along with an independent document and website analysis by the WISELI evaluation staff, the following conclusions and recommendations were made to the WISELI Principal Investigators and Executive Director in August 2003.

Formative Evaluation Conclusions
The following discrepancies and similarities were found when comparing the descriptions of the Life Cycle Research Grant program from the original grant proposal and WISELI’s call for proposals on the website:

a) Being between grants is listed in the original grant proposal as an example of a “personal life event” deserving of additional monetary support, but the call for proposals does not mention that circumstance.

b) The original grant says the Life Cycle Research Grants will be available to women faculty while the call for applications says the grants will be available to faculty and permanent PIs (with sex not being a factor).

c) Both the grant proposal and the call for proposals mention life circumstances of a new baby and parent care responsibilities.

In light of these discrepancies, along with experiences of the reviewers of the applications, PIs and Executive Director, the following conclusions were also made:

d) The term “critical junctures” may be too vague because there were different perceptions of what this meant. Some thought it was applicable to junior faculty who were trying to achieve tenure, while others thought it was applicable to anyone at any point in their career. This led to discrepancies between people’s priorities when awarding the grants.

e) There is no discussion of a difference between a “personal life event” and a “critical career juncture” in the ADVANCE grant proposal, but the call for proposals and all

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3 “Research grants will be available to women faculty at critical junctures in their professional careers (e.g. between grants, a new baby, parent care responsibilities). These grants are meant to be flexible and women may apply for varying amounts and academic purposes.” (p.18)

4 “These funds will be available to faculty and permanent PIs at the University of Wisconsin-Madison who are at critical junctures in their professional careers when research productivity is directly affected by personal life events (e.g. a new baby, parent care responsibilities, a life-partner's illness, one's own illness).”
interviewees recognized a clear difference in the two circumstances and that a combination of both contributed to an applicant’s need for the award.

f) Some emphasized the “critical juncture” piece of the requirements over the “personal life event” piece of the program, while others did the opposite. For some it was more important that the stress was occurring at a critical point in one’s career (e.g., the birth or adoption of a child while trying to achieve tenure); for others it was more important that the event was stressful but not necessarily occurring at a critical place in one’s career (e.g., a senior tenured faculty who has become ill). The grant does not separate these two, but the call for proposals states that the awards are for those at critical junctures in their professional careers when research productivity is directly affected by personal life events. In other words, the two need to occur simultaneously.

g) There were differences in people’s perceptions of whether these grants were intended for people going through the typically expected stress of having or adopting a child and having extra care-giving responsibilities, or for people dealing with major unexpected stresses such as illnesses. One who felt the grant should be for childcare-related events felt that this particular emphasis is what sets the Life Cycle Research Grants apart from other grants that other campus organizations could provide. Also, there were differing viewpoints about whether having or adopting a child was a life event that warranted monetary support, or whether it was just a normal life event that many people deal with and therefore not worthy of extra funding.

h) There was some resistance to awarding grants to those who were having or adopting a child because these applicants only predicted a future need of money to cover upcoming care-giving duties. It was obvious that those with immediate problems would be more deserving of the grants, so no grants were given to applicants with babies who had yet to arrive.

Formative Evaluation Recommendations
Based on the respondents’ comments and observations about the implementation of the LCRG program, the following were recommended:

1. There needs to be a set of criteria for choosing the awardees of these grants, with priorities clearly stated. It would be ideal for those within in the WISELI program and reviewers of the applications to agree upon and state whether there is more importance associated with the “critical career juncture” or the “personal life event.”

2. The reviewers need to consider how these two events, in combination, affect one’s research agenda.

3. There needs to be evidence within people’s applications as to why they do or do not deserve and in turn, do or do not receive an award.

4. WISELI needs to remove the suggestion of the birth or adoption of a child as a “personal life event” from the call for applications because it will typically not earn someone one of the grants. Still, something needs to be done for the people whose research agenda is being affected by the arrival of a child at a critical juncture in one’s career.
From these recommendations, the WISELI staff made the following change to the second sentence in the “Call for Proposals,” as found on the WISELI website for years 2003-2004 and 2004-2005.

In collaboration with the Graduate School, WISELI (the Women in Science & Engineering Leadership Institute) is pleased to announce the Life Cycle Research Grant Program. These funds will be available to faculty and permanent PIs at the University of Wisconsin-Madison who are at critical junctures in their professional careers when research productivity is directly affected by personal life events (e.g. complications from childbirth, parent care responsibilities, a life-partner's illness, one's own illness). These grants are meant to be flexible and faculty may apply for varying amounts and academic purposes.

Further, summaries were created to identify “life events” and “career junctures” of each of the applicants. The reviewers also noted why particular applicants received first priority and why they were ultimately awarded grants over others.

Summative Evaluation of the LCRG Program

In the spring of 2004, the four recipients of the grants of the first two rounds of the grants agreed to participate in in-depth interviews. Each interview was held in the recipient’s office and standard human subjects protocol was followed (i.e., signed informed consent, discussion of the use of the data, confidentiality and anonymity guarantees). During the interviews, the following questions were asked:

1) General question about life event – how are they/their children/spouse doing?

2) To what extent did the funds enable you to continue your research project(s)? What hindered or supported this process?

3) To what extent did the funds assist you in making significant progress in your research and/or enable you to obtain additional funds that would support your research beyond the scope of the grant? What hindered or supported this process? (Ask for specific examples – publications, presentations, grants awarded, etc.)

4) If the life event negatively influenced your career path, to what extent did the funds help you to re-align with that path? What hindered or supported this process?

5) Did the life event put you at risk for leaving UW-Madison? To what extent did the funds help you to stay at UW-Madison?

6) What would you have done if you had not received the grant during the situation?

7) What do you think the university/department could/should do to help faculty during major life cycle events?
8) Do you think this is a program that should be continued?

9) Relative to other programs for women faculty on campus, where do you think this program falls in terms of value?

10) Have you told others about this grant? How do you describe it? How is it perceived? By department? Colleagues?

11) Were there other positive or negative outcomes that occurred as a result of the funds received? If so, what were they?

12) Are there others in your department or elsewhere who can attest to the impact that this program has had on you and the UW? May I interview them?

Each of the interviewees agreed to be audiotaped, and the recordings were subsequently transcribed. The text of their responses was coded using a qualitative analysis software program\(^5\), and was analyzed into thematic areas. From the interviewees’ responses, five overarching themes were identified as impacts of this grant on both their personal and professional lives, on other peoples’ lives and on the University. Further, they had much to say about the program’s overall use and value. And, in subsequent discussions and email, each provided documentation about the publications, presentations, and grant proposals that are directly attributable to the time they were supported by the LCRG program.

Impact of the Life Cycle Research Grant: Overarching Themes

The following themes and illustrative quotes reflect the positive impacts of the grant on the awardees. To say all felt the same way about each of the themes would be incorrect, as every individual’s case had different variables, contexts, and consequences. It is accurate to say that each of the following themes stem from comments and experiences identified by most, if not all, of the interviewees.

I began each of the interviews with a general question about the life situation that instigated the interviewees’ application for the grant. In each case, their own or their child’s health had improved and all felt their lives were “on the upswing.” In general, their professional lives improved in tandem with their personal lives. In each of these themes, one reads how the personal and professional are interwoven and how the grant has affected each.

- The Only Grant of Its Kind

The recipients of the LCRG grants immediately noted that this was the only type of grant that validated peoples’ personal lives and recognized how “suffering” can impact their professional lives. In the interviewees’ opinion, this is what made the grant extremely valuable, as noted by Andrew\(^6\):

\(^5\) ATLAS.ti: www://atlasti.de
\(^6\) All names are pseudonyms.
Because of the nature of the program, you help people that suffer somehow. I would say that the value of this program is greater than other programs, because you help people to cope with tragedy. So emotionally, it's important . . . I'm not aware of any program that I would be able to apply to on campus justifying my request based on health-related issues. I think you are the only program of this kind. And I'm not aware of any programs like yours in other institutions . . . Typically people don't give a damn about health. If you're sick, then you go.

Mary’s comments resonated with Andrew’s:

There are no grants that I can apply to that are geared towards this kind of situation. Everything is about science. I did look for grants, small, big, large – everything is about the merit, the scientific merit, but behind the scientific merit is a person. A person has a life and that life can change . . . If I hadn't gone through this, I would not even think that [this type of grant is] necessary, because if you go into science, you're expecting the tough times. Especially at the beginning of career, because you're fighting for recognition . . . I felt like this is something [that happens] once in your lifetime . . . So I was really lucky [with the timing] because one year earlier, I wouldn't have had the grant.

The interviewees attributed “the culture” at the UW and in the United States as one of the main reasons why there are no mechanisms to deal with people’s personal situations. For example:

In American culture, people don't talk about their illnesses . . . You have to project yourself in America as a strong, healthy woman or man . . . I grew up in a different culture, where people are not shy about speaking about their illnesses. So, you would have to change the culture.

Andrew continued:

Well, there's a lot of suffering and, the fact that this program exists essentially identifies cases that need to be solved. So, it is hard to exaggerate – this program is very important whether you want to keep it private or not. In American culture, this needs to be kept private because you can hurt a lot of people.

Susan talked about how the culture in the University had played a part in her covering up the issues she was facing at home:

Initially, when I first was dealing with my life event, some of my colleagues were not very supportive, they didn't understand what was going on and they were criticizing me that I wasn't here on Saturdays. There's kind of a culture of, you know, everyone has this set of expectations and we expect everyone here on Saturday. That did not come from my Chair, it came from some of my colleagues in my department. And, that was rather distressing . . . I was told, ‘well, just rely on your partner.’ This came from men whose wives are at home, where it’s much easier to rely on their partners . . . I think there's a lack of realization that it is a bit different to be a woman than to be a man, even with all
the efforts at equality in raising children – it still falls pretty heavily into the mother's domain [especially with a partner who is ill].

She continued:

I think it's just that they didn't understand that their situation and my situation were very different and that I needed a certain kind of support that they didn't need and for them to assume that I could live under the same schedule was ridiculous . . . And yet I would come in at nine at night and work until two in the morning here, and those same people weren't here. It's just that I wasn't here on Saturday because that's when I'm with my son . . . I'm not sure if the university can do much, other than thinking carefully about the culture that's promoted in terms of how people are judged.

After receiving the grant, she felt uncomfortable publicizing it because of the “stigma” she already felt:

I felt that there was a stigma. So I was a little concerned that there would be the impression that because I had these things going on in my personal life to deal with, and because I'd already been criticized for not working on Saturday and my grants hadn’t been funded yet, that there would be this impression that I was not going to be able to cut it. I had the sense that I needed to present a strong front to certain, critical members in my department and to have a sense that they have confidence in my ability to succeed.

From the perspectives of the interviewees, the “culture” significantly affected how they coped with their personal situations and their professional lives. They noted that there are no mechanisms at the UW to address situations similar to theirs, as Mary commented:

There's no mechanism [on campus] . . . this is the first mechanism I have ever heard about to support women and men in a crisis like this. I mean, the department has some overhead money that kicks back every year, but everybody's looking at that money so they can buy some equipment for their own lab, it's all usually divided by the whole department. There's no mechanism to say, you've got faculty in a crisis, we'll set aside some money to support this professor for another year by taking some of this overhead money and giving it to her so she can continue. There was no mechanism like that, and nobody has suggested that either. And so the impression I had is, ‘tough it out, otherwise don't stay here.’

Mary applied for various other grants, as a way to “tough it out.” She was in the mode of writing grants based on scientific merit when she read about the WISELI Life Cycle Research Grant “Call for Proposals” in an email. Once she realized that this program applied to her, she sat down to write the application:

I always write grants for scientific stuff – this is a grant for personal stuff, and I couldn't write it! I had to sit there for a couple of hours. I said, ‘how do I start this?’ You know, this is something very personal, it's not just, this is what I'm going to do, scientific things. This grant is kind of intertwining your life and your science career. It was very hard to
write — there's no template. So, yeah, I sat there for a couple hours just blank, I was just blank.

Mary’s struggle when writing the application did pay off, as she did get funding through the LCRG program. Both she and the other grantees were very willing to continue to describe how this grant has impacted them, both personally and professionally.

- *It Came at a Critical Juncture in their Personal and Professional Lives*

Mary and Susan were both Assistant Professors and at the early stages of the tenure process; Karen was recently denied promotion to Professor, which she attributed to a lack of productivity due to her health issues; and Andrew was attempting to maintain a lab and his cutting-edge research. In general, each was at a “critical career juncture” in his or her life when their individual crises emerged. A few even admitted that they were at risk of leaving the University, academia, or the world, altogether.

Mary was concerned about achieving tenure and if she had made the best choice in being a faculty member:

> Because every three years they do renew your contract. And I was really afraid because I didn't have publications, I didn't have any external grants, and it's really frightening for anybody on tenure track after one and a half to two years, do you have anything to show for it? They hire you on this hope that you can bring a million dollars in, publish five papers a year, and it was really frightening. At times I doubted, should I have children and have come here, because the previous faculty job I had was teaching, mostly teaching, I can do that even with sick kids. I can teach, because you don't have to be there every day. As a major research professor, you really have to be here every day because there are constant technical questions that you have to answer for your student or your lab tech. So, I had to be here every day. And that made it really difficult for me at the time. And I would think, if I had stayed in Iowa for my first job, I wouldn't be so afraid of tenure.

She continued:

> I didn't feel I could make it. So I probably would have started to draw a backup plan and apply a teaching position within a year or so . . . I'm not drawing any backup plan now, because I'm very optimistic. But, if I didn't [get the grant] I probably would have abandoned the research position and go for teaching.

Susan felt as if the grant was one of the things that helped her to “realign” her career path:

> The life event certainly affected my productivity in publishing papers and that was coming back and affecting my ability to get grants. And so I think it did delay me getting my lab established and recognized in the field nationally, which has really happened with this last paper that we got published . . . But now in the last meeting I went to, I noticed that people in my field are now recognizing that my lab's up and running, and I'm
publishing, and all of a sudden there was a difference of, okay, she's making it . . . I really think it was because of the life event and the things I was doing with my partner that delayed that. I think the grant helped me realign by being able to get the paper out, showing that yes, I'm publishing, we're going to be successful, I'm going to do fine now. I'd say the grant came at a time when I was rearranging my whole life, and so, um, everything contributed to getting things back on track.

When asked if the life event put her at risk for leaving the UW and how the grant affected her decision, she answered:

I guess if I had dropped out entirely and stopped being a faculty member. But it didn't put me at risk to go to another institution. I think it was more just dropping out of the whole academic life entirely. So, from that standpoint, [the grant] did help me stay, I think it helped me be successful so I'll get tenure and I can stay.

Karen, on the other hand, had tenure but had been recently denied a promotion:

My [issue] was related to the fact that I couldn't get things done as fast as I wanted to and therefore, I was denied full professor . . . Right now I've got so many things in the works that I'm hoping that they're going to look at [my promotion package] differently when I go up. [The grant] really helped this process, more so than leaving, the process of trying to get full professor . . . I'll probably go up again next spring.

When asked if he was at risk for leaving the University, Andrew laughed and said, “well actually, the world.” His situation was life-threatening and in his case, leaving the University was the least of his concerns. Having an already-established lab and being a full professor did put him in a different category from the rest of the awardees. At the same time, he admitted it was impossible to “exaggerate” the benefits of this grant on his health and psychological well-being during the time of his illness.

- The Grant Provided Psychological Support

All four of the grantees talked about how the grant provided the needed psychological “boost” to stave off depression and further deterioration in their health. When discussing some of their experiences, the grantees used words such as “desperation,” “depression,” “fear,” and “downhill spiral.” Receiving the grant motivated them and made them feel that they could get over the “hump” they had been facing.

Mary described this:

[The grant] kept my hope up . . . I was desperate. I was desperate because I knew I was lacking hands to work in the lab, not lacking ideas. But the situation with my family just totally put everything on hold, I wasn't able to concentrate enough to do everything. [My daughter] was hospitalized so much and she needed so much, and we didn't have immediate family around us . . . So, the grant actually gave me a little bit of hope that I would keep my momentum. Otherwise, I think it would be a downhill spiral. At that
moment, the grant pulled me up, so that prevented me from sliding further down in my career path. I was really afraid I wouldn't be able to make it to tenure, or even to extend my contract.

Others also talked about how this grant was different – it helped them to “reverse the momentum” and was a “life raft:”

I strongly support this program . . . it’s not a huge amount of money, for anybody, but it really reverses the psychological effect of the life event. It reversed that trend of doubting – that’s really dangerous because if you start to doubt your choices, you start to lose your drive. You cannot be driven at the same time that you doubt it. Either you're driven or you doubt it and you quit. So I strongly recommend this to be continued and I hope people in my situation in the future will be able to have the same kind of support.

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This is really different, this is a completely different mechanism . . . It's a crisis line, you know, it's a lifeline, a life raft. That one year was critical, and if I didn't have the [grant] then I probably would say, ‘I can't make it, and I'm leaving.’

Clearly, the grant had far-reaching impact on both their current situations, as well as their futures. At the same time, the grants enabled the recipients to support personnel in their lab or provide new opportunities for grad students and post-doctoral fellows. The following theme describes some of these impacts.

- **Impacts on Others’ Lives, as Well**

The grantees described how they would have had to dismiss key people in their labs. Andrew noted:

Without these funds, I would have had to let the key person in my lab go. Her salary was covered in full, I believe, by WISELI. She's the key to the lab, because she was essentially managing the lab when I was recovering . . . It’s very hard to exaggerate how much this support meant to me. What it still means to me.

With the funds, they were able to hire managers (like Andrew), graduate students, post docs, and/or limited-term employees to complete a specific service for them. Further, most of the personnel who were hired with the grant funds have co-authored or published with the grantees. Without the funds, the interviewees noted that they would have had to be “fiscally irresponsible,” which would ultimately impact them and the other people in their labs.

Susan described how she would have handled life without the grant:

I probably would have been more fiscally irresponsible – I would let a certain amount of debt acquire. Which then, if I get another grant, automatically you're starting behind on it. But I certainly would not have hired undergraduates to help out in the lab, to help out
doing dishwashing. And I would have probably been more cautious about, buying reagents that we really needed for doing the experiments and we probably would have tried to skimp on things. But sometimes, that's counterproductive. You're trying to skimp on something, but the experiments then don't work as well and you end up spending longer doing them, or rather than buying something that helps you do it quickly you do it a more old-fashioned way that takes longer and so I think we might have done some of those kinds of things. It might have slowed the progress a little bit. It's hard to put a value on that.

Ultimately, the grantees recognized that without the extra help – in personnel, buy-out time, or other resources – they were stuck in a vicious cycle of not getting research done, not publishing, and so on. Karen described this:

I applied for the money to give myself some time in the summer to work on research projects. And that was invaluable, because I was able to get a manuscript out. And, I was hoping to get two, but I managed to get one out and one in draft form, so I was pleased with that, but the biggest help was the project assistant. I hired this fellow from engineering to write software for me and convert all the software that I had in my lab, which is old and written in BASIC, into this new form called Lab View, which is a graphical form of software development . . . So now we can easily go onto the computer, use Lab View for almost any type of setup we have, and that just saved a tremendous amount of time, because he developed a program for one, two, three, three different projects, and, and they're generic enough that you could use them for other projects as well by just tweaking them a little bit. He also participated in data collection with another grad student – the two of them helped me collect data on [my field of research].

Mary also needed the “extra hands” to allow her to collect data and write manuscripts, which allowed her to also develop grant proposals:

I was having such a difficult time in my life, I was not being able to work in the lab, imagine that! So I desperately needed someone that could come in and work in the lab on a daily basis to generate data. And even though I was writing grant proposals, in the back of my mind I knew it was not good enough, because I didn't have enough preliminary data. And so it was tremendous help that, [the grant] enabled me to hire a full-time person working in the lab . . . a technician that could be here five days a week, eight hours a day, and that really generated the momentum. That’s why I was able to finish papers. I can either do the work in the lab or write papers – it's a catch-22! You write a paper, you can't do the work, you’re working, you can't write a paper! So I wasn't able to write many papers at all, until the technician come in, then I can say, 'okay, you work in the lab, don't worry about the data, I'll analyze the data.' . . . Within a year and a half, I generated four papers.

The interviewees described themselves in “catch-22” situations and were only able to get beyond them with extra help. All admitted that the actual funding was relatively low compared to the pay-offs they received from the grant. This last section describes how the initial investment reaped great rewards for the recipients and the University.
An Investment in the Grantees’ Future and the University’s

The recipients verbalized many pay-offs, both short- and long-term. These were described qualitatively, as reflected in their comments found in previous sections, as well as quantitatively, as seen in Table 3.

Table 3: Grantee Information about Publications, Presentations, and Grant Proposals

<table>
<thead>
<tr>
<th>Grantee</th>
<th>Number of Publications</th>
<th>Number of Presentations</th>
<th>Number of Grant Proposals</th>
<th>Amount Requested in Grant Proposal(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>$75,000</td>
</tr>
<tr>
<td>2</td>
<td>7*</td>
<td>0</td>
<td>1</td>
<td>$1,807,375</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>$50,000</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>$425,000 (total)</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>12</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
<td><strong>$2,307,425</strong></td>
</tr>
</tbody>
</table>

This table reflects the number of publications, presentations, and proposals that the first four recipients of the LCRG directly attributed to the funding year from the grant. If all of the grant proposals were funded, the original investment of approximately $255,000 (for 6 awardees) would have a return rate of almost 1000%. Even if a fraction were funded, the pay-offs would be significant.

The interviewees described their understanding of this. Susan noted:

[With other grants] you're competing on a national level on everything, and I think that's fair, but you are at a disadvantage because you just don't have the time and energy at the same level as perhaps other people and so it just gives you that little bit of, little extra money to get things pulled together – have another person, have more reagents, have more whatever you need to have your grant be competitive. I also think it's a good idea because of the investment value. If I get my grant, it's going to pay off for the university several fold over.

Mary concurred:

It's really unique to give [a grant] during a very difficult time of a person’s career. And the person could turn out to be, in five years, a big star for the university . . . I'm not saying that I'm going to be a star, but I could be. And, and who is to say that the thirty-two thousand dollars that was spent . . . it's really a drop in the bucket, but it really helps the most fundamental part of the university, which is research and teaching. If you can't keep faculty, you can't get good faculty to stay here, then you lose your prestige as a

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7 Either published or in press, unless otherwise noted.
8 All have been submitted; none funded yet.
* 4 have been submitted, 3 are in press or published.
university. We come here because it's a prestigious university. We believe our colleagues are stars in the field. And if we don't have that belief, we wouldn't be here. So I hope the university will want to keep us here, and develop some mechanism to help us. So I would strongly support this program, even one case a year. If that one person really was drowning. This is a lifeline.

Mary goes on to further describe how she would financially support the program in the future:

If I get tenured and the University asks for donations, I will donate money to this particular program, not to the university as a whole . . . I wouldn't mind doing that because [this program] is critical.

From these comments and the table, one comes to understand the value of the program to the recipients and to the University. Follow-up discussions will occur with these recipients, as well as the two recent awardees, to identify any other impacts on their professional lives.

**Conclusions**

The investment in these scholars has led to significant outcomes, for themselves and the University. For example:

- The recipients were able to mitigate the negative affects of their personal situations through the funds available by the grant;
- The grants provided them with the necessary resources to maintain and extend their research programs;
- The grantees were able to hire staff to be the managers, data collectors, etc., which provided graduate students, technicians, and postdocs research opportunities;
- The grantees were able to be productive, as seen in the number of publications, presentations, and grant proposals that were written;
- The interviewees were unable to identify any negative impacts from receiving the grants.

In conclusion, the four awardees are extremely grateful for the program, the resources they received and the motivating influence the grants provided. They offered to provide “testimony” as a means to further support the program and perhaps enable others to receive similar funding. From our evaluation of the program, seeking funds to continue the program will be a worthwhile endeavor, as there are many faculty and academic staff who would be worthy of this type of support.