

**Impacts of Receiving FORWARD Grants/Awards on NDSU Women Faculty
by STEM Status
May 2011**

Description of Full Sample

Sixty-three women faculty members completed the survey from an overall sample of 67 faculty members who have received at least one FORWARD grant or award. Thus, this survey has a response rate of 94.1%.

Description of the STEM Sample

Forty women faculty members from STEM disciplines completed the survey. In particular, 19 (47.5%) reported receiving a travel award, 7 (17.5%) received a course release award, 7 (17.5%) received a leap research grant, 2 (5%) received a climate/gender grant, and 1 (2.5%) received a leadership development award. In addition, 30 (75%) faculty members were assistant professors, 8 (20%) faculty members were associate professors, and 2 (5%) faculty members were full professors.

Description of the Non-STEM Sample

Twenty-three women faculty members from Non-STEM disciplines completed the survey. In particular, 13 (56.5%) reported receiving a travel award, 2 (6.7%) reported receiving a course release award, 1 (4.3%) received a climate/gender grant, and 1 (4.3%) received a leadership development award. In addition, 18 (72%) faculty members were assistant professors, 6 (24%) faculty members were associate professors, and 1 (4%) faculty member was a full professors.

Perceptions of the Overall Impact of Grants and Awards

Each of the four major goals of the FORWARD project were assessed using a six point Likert scale (ranging from 1 = Strongly Disagree to 6 = Strongly Agree) question. The four goals are about Retention, Promotion and Tenure, Leadership, and Climate.

My participation in the FORWARD award/grant program(s) has had a positive impact on my decision to remain at NDSU.

	Frequency	Percent	Cumulative Percent
Valid Disagree	4	6.3	6.5
Somewhat Disagree	1	1.6	8.1
Somewhat Agree	14	22.2	30.6
Agree	26	41.3	72.6
Strongly Agree	17	27.0	100.0
Missing Data	1	1.6	
Total	63	100.0	

***Overall Mean= 4.82 (SD= 1.06), for STEM faculty = 4.95; for non-STEM faculty = 4.61; no significant STEM status difference.

My participation in the FORWARD award/grant program(s) has had a positive impact on my tenure and/or promotion process.

	Frequency	Percent	Cumulative Percent
Valid Strongly Disagree	2	3.2	3.2
Disagree	3	4.8	7.9
Somewhat Disagree	2	3.2	11.1
Somewhat Agree	11	17.5	28.6
Agree	14	22.2	50.8
Strongly Agree	31	49.2	100.0
Total	63	100.0	

***Overall Mean= 4.98 (SD= 1.33), for STEM faculty = 5.17; for non-STEM faculty = 4.65; no significant STEM status difference.

My participation in the FORWARD award/grant program(s) has helped me develop leadership skills that will assist in my career advancement.

	Frequency	Percent	Cumulative Percent
Valid Strongly Disagree	2	3.2	3.3
Disagree	4	6.3	9.8
Somewhat Disagree	3	4.8	14.8
3.50	1	1.6	16.4
Somewhat Agree	21	33.3	50.8
Agree	20	31.7	83.6
Strongly Agree	10	15.9	100.0
Missing Data	2	3.2	
Total	63	100.0	

***Overall Mean= 4.37 (SD= 1.22), for STEM faculty = 4.39; for non-STEM faculty = 4.32; no significant STEM status difference.

My participation in the FORWARD award/grant program(s) has positively enhanced my experience of the campus climate at NDSU.

	Frequency	Percent	Cumulative Percent
Valid Disagree	2	3.2	3.2
Somewhat Disagree	3	4.8	8.1
Somewhat Agree	16	25.4	33.9
Agree	23	36.5	71.0
Strongly Agree	18	28.6	100.0
Total	62	98.4	
Missing Data	1	1.6	
Total	63	100.0	

***Overall Mean= 4.84 (SD= 1.01), for STEM faculty = 4.79; for non-STEM faculty = 4.91; no significant STEM status difference.

Travel Awards

STEM-Sample

The 19 STEM participants who received a travel award reported that the below accomplishments were associated with receiving a FORWARD Travel Award:

- 3 (15.8%) participants presented at international conferences
- 12 (63.2%) participants presented at national conferences
- 3 (15.8%) participants presented at regional conferences
- 10 (52.6%) participants made progress on a research article
- 11 (57.9%) participants made progress on a grant proposal
- 17 (89.5%) participants met with collaborators
- 14 (21.1%) participants received mentorship that helped with career development and advancement
 - On average, these participants met with 1.85 (SD = 0.68) mentors
 - 8 (42.1%) participants met with a graduate school advisor
 - 3 (15.8%) participants met with a mentor for the first time

Non-STEM Sample

The 13 Non-STEM participants who received a travel award reported that the below accomplishments were associated with receiving a FORWARD Travel Award:

- 8 (61.5%) participants presented at national conferences
- 2 (15.4%) participants presented at regional conferences
- 8 (61.5%) participants made progress on a research article
- 3 (23.1%) participants made progress on a grant proposal
- 11 (84.6%) participants met with collaborators

- 10 (76.9%) participants received mentorship that helped with career development and advancement
 - On average, these participants met with 2.00 s (SD = 0.67) mentor
 - 4 (30.7%) participants met with a graduate school advisor
 - 5 (38.5%) participants met with a mentor for the first time

Course Release Awards

STEM-Sample

The 7 STEM participants who received a course release awards reported that the below accomplishments were associated with receiving a FORWARD Course Release Award:

- 3 (42.8%) participants began a new research project
- 6 (85.7%) participants submitted a peer reviewed article
 - On average, these participants submitted 3.0 articles (SD = 2.12)
 - Overall, these participants submitted a total of 15 articles
- 4 (57.2%) participants submitted a peer reviewed article and had that article accepted
- 2 (28.6%) participants began writing a new grant proposal
- 3 (42.8%) submitted a grant proposal to a funding agency
 - On average, these participants had submitted 5.67 grants (SD = 3.05)
 - Overall, these participants submitted a total of 17 grants
- 3 (42.8%) participants submitted a grant proposal and had that proposal funded
 - On average, these participants had 2.67 grants (SD = 2.08) funded
 - Overall, these participants had a total of 8 grants funded, totaling \$98,243.00
- 3 (42.8%) participants presented at a national conference
- 4 (57.2%) participants presented at a regional conference

Non-STEM Sample

The 2 non-STEM participants who received a course release award reported that the below accomplishments were associated with receiving a FORWARD Course Release Award:

- 1 (50%) participant began a new research project
- 1 (50%) submitted a peer reviewed article
- 1 (50%) participant submitted a peer reviewed article and had that article accepted
- 1 (50%) participant presented at a regional conference

Leap Research Grants

STEM-Sample

The 7 STEM participants who received a leap grant reported that the below accomplishments were associated with receiving a FORWARD Leap Research Grant:

- 6 (85.7%) participants wrote a new grant proposal
- 3 (42.8%) participants submitted a new grant proposal
 - On average, these participants submitted 2.00 (SD = 0.82) grants
 - Overall, participants submitted a total of 8 grants
- 4 (57.2%) participants had a grant proposal funded
 - Overall, these four grants were funded for a total of \$1,733,750.00
- 2 (28.6%) participants presented at a national conference
- 3 (42.8%) participants presented at a regional conference
- 2 (28.6%) participants earned tenure and promotion to associate professor

Climate-Gender Research Grant

STEM Sample

The 2 STEM participants who received a climate-gender grant reported that the below accomplishments were associated with receiving a FORWARD Climate-Gender Grant:

- 1 (50%) participant wrote a new grant proposal
- 1 (50%) participant presented at a national conference
- 1 (50%) participant experienced learning the value of interdisciplinary research
- 1 (50%) participant experienced increased acceptance of her gender/climate related research by her colleagues in their unit

Non-STEM Sample

The one non-STEM participant who received a climate-gender grant reported that the below accomplishments was associated with receiving a FORWARD Climate-Gender Grant:

- 1 (100%) participant experienced increased acceptance of their gender/climate related research by her colleagues in her unit

Leadership Development Award

STEM Sample

The 1 STEM participant who received a leadership award reported that the below accomplishments were associated with receiving a FORWARD Leadership Development Award:

- 1 (100%) participant was able to identify skills that will help her be competitive for leadership positions at NDSU
- 1 (100%) participant was able to acquire new skills that would help her be competitive for leadership positions at NDSU
- 1 (100%) participant acquired a new leadership position at NDSU
- 1 (100%) participant acquired a new leadership position at an institution other than NDSU
- 1 (100%) participant acquired a new leadership position within a professional association

Non-STEM Sample

The 1 non-STEM participant who received a leadership award reported that the below accomplishments was associated with receiving a FORWARD Leadership Development Award:

- 1(100%) participant were able to identify skills that will help them be competitive for leadership positions at NDSU

Qualitative Feedback on the FORWARD Grant/Award Programs

1. What if any challenges or barriers did you experience in completing the goals of your grant/award?
 - Time to complete.
 - Time to write up the research results is very hard to come by!
 - The travel grant has a proposal deadline of January every year, and the fund must be expanded by August 31 of the same year. However, the best time to meet my mentors (my advisor and another female faculty from University of Maryland) is always in October/November during my annual conference. I will need to always file an extension request. It's not a challenge though. However I do hope the award period could be slightly longer.
 - Finding additional funds to cover travel expenses.
 - For course release, I still have not found a person to teach class next year.

- Grant is exceptionally well written- succinct and to the point. Thanks for that.
- NDSU is still a very old fashioned place that is NOT welcoming to women or people from other cultures/countries.
- Not enough time in any given day!
- Time!
- Still in progress through next year. Some network access barriers, somewhat surmounted through grant activities.
- Labs damaged and moved in Minard collapse Dec 2009
- People in different department are not sure about each other!! There is an element of mistrust!!
- Difficulty in recruiting graduate student. Had to adjust the research plan to fit the student's background and skills.
- For the Leap lab renovation grant, we were not able to utilize all the funds. Is there any possibility to allow a certain % of that grant to be used toward equipment?
- The first year no challenges with the grant. The second year I'm dealing with problems bringing my mentor here (health problems that arose after scheduled visit)
- No major barriers. Since the purpose of this funding was to renovate lab space, the only major challenge was to get facilities management to complete the work in the time frame of the grant.
- I have not experienced any barriers. My department was very supportive.
- For the climate grant, we had difficulty getting an appropriate study sample.
- Time (not enough), IRB (overly restrictive), Funds (Not enough for scope of project.)
- There was none.
- As always, finding time to use my research material, amid teaching and service responsibilities.
- Finding enough time to have a productive meeting with my mentor (between our various presentations and panels we wanted to attend). But we figured it out. And I feel like I gained a lot—both in terms of making research progress and getting good advice.
- The student workers we hired weren't as helpful as we had hoped. We had to still do most of the work on our own (or re-do what was done).
- No major pitfalls—we are continuing sequence analysis and some further in-depth sequencing to enhance the genome closure.
- The FORWARD travel award was helpful in facilitating my research but only in conjunction with other awards and money received. On its own, it would have been insufficient to allow me to conduct my research, conference presentations and meetings with mentors. Still working on grant aims, a challenge will be to complete it all by the expiration of the grant.

2. In addition to the benefits identified previously in the survey, were there any other benefits you experienced due to receiving a FORWARD grant/award?

- Mostly, I appreciated the increased number of students who have the research forward, has led to papers and consequently to grants. Continually appreciate the program.
- I think the timing for the NSF report was early. It takes time to develop a grant or manuscript. Work is still in progress so I did not have much information to put in my NSF report.
- Benefitted my career (in general) beyond positive impacts on tenure & promotion.
- The lab and office space survey lead me to being moved out of my small lab and office into a much larger lab and office. I currently have 6 grad students, 3 undergrads, and 2 full time staff members, and the move was a great opportunity.

- FORWARD grant helped me to visit the laboratory facilities and to learn their cutting edge technology. Planning to have a MOU initiated.
- I have made excellent use of the grants over the years. Without them I would not have been able to participate in research programs around the U.S.
- One year after the course release grant and due to the paper I wrote during that time I was awarded an NSF grant.
- I learned about situations in other universities—broadened my experience.
- Recognition from my department and college for receiving a grant/award (with respect to peer evaluation, promotion & tenure).
- Travel grant allowed me to spend quality time with new colleagues in Spain & France. This has turned into a collaboration that will take one of my grad students to France for a semester.
- Increased confidence.
- Yes because I was able to go to the conference, I was able to get up-to-date information on projects conducted by others in my area.
- My graduate student had the opportunity to teach my class. Great CV-builder and great experience!
- Collected pilot data for a grant proposal to be submitted Oct. 2011.
- Recognition of work/ideas.
- Put me in a position to provide input to others seeking funding through these programs as well—thus mentorship role was enhanced.
- Meeting other supportive faculty members on campus.
- Major benefit is that it has allowed me to establish an international research program. Leap grant also allowed me to recruit an excellent graduate student.
- All the workshops and talks that have been organized have been very beneficial to me, and have covered pertinent topics.
- Confidence. Access to more opportunities for networking and sharing research in a single year. An opportunity to attend a smaller but wonderful conference, Feminism and Rhetoric that I've always foregone because of only enough funding for my major conference. Attending Feminism and Rhetoric allowed me to mentor an assistant professor and two grad students, as well.
- The mid-career mentoring conversations and programs have allowed me to more fully understand my way forward to full professor.
- I was able to negotiate office space for my graduate students with the department.
- Working collaboratively. It gave me the chance to develop a great collaborative experience.
- It gave me a different perspective on how to balance research and teaching.
- It gave me experience managing a budget.
- Networking.
- The emphasis of the travel award on working with a mentor was very valuable. My mentors were informative, inspiring, and faced the same challenges we all do. They were not superwomen, just hard working teachers/researchers with a passion for what they do.
- Opportunity to network with established and up-and-coming scholars in my field. Lays ground for future collaboration and/or extended reviewers for my tenure case.
- Envy from colleagues at other institutions.
- The interdisciplinary aspect of the climate grant was great! I expanded my knowledge and received mentoring from it.
- FORWARD grant helped me to network with other colleagues in the campus. The workshops usually really helped me.

- Allowed us to enhance our expertise in genome sequence analysis closure and annotation. Personal mentorship and support. I was able to meet with a mentor in my discipline who understands work-life balance issues specific to the area I research.

3. Are there any other comments you would like to share with us about the FORWARD grants and awards program?

- Would be nice to be able to apply to the research grant again as associate professors and I look forward to the leadership grant. Thanks for all you are doing for us.
- Keep up the good work.
- I recently heard from a female friend and collaborator (an assistant professor in the NDSU plant science department) that the FORWARD program is openly mocked by some of the male faculty in that department. Although I applaud the efforts by the FORWARD program and personnel, I feel that NDSU still has a long way to go.
- I am not sure how others perceive FORWARD. To me, it is one of the best service activity and I'm a true benefiter. I am certain that like me there are several others who were helped and this created a positive impact in the campus not only to women faculty but even to male faculty. The workshops were immensely helpful.
- This is a wonderful program in terms of the support it offers, but in a way it's sad that women have to petition for research support. THANK YOU.
- The grants, though personally helpful in my research do not address the inequity, biased treatment, harassment & poor treatment by administration. The "good ol' boys club" is still dominant, loud and apparent in administration in an appalling pattern.
- FORWARD is making a difference if progress is slow that is because NDSU has a long way to go to improve climate.
- Thank you for the support!
- Tremendously helpful to provide resources that otherwise would not be provided to facilitate advancements
- One of my grants was denied from the FORWARD program because I was "too successful," I feel success should not be defined by reviewers, some of us may just be more driven to succeed than others.
- The program improves morale.
- The programs under FORWARD have been so beneficial to me and my career I would love to see them continued and expanded to include my male colleagues.
- I really appreciate the support I've received. It is making a very positive impact on my career. I also really appreciate all of the seminars and workshops sponsored by FORWARD. They are very valuable to me and others. Thanks!
- Providing opportunities for women faculty to succeed will not change the climate or male administration perceptions of gender inequality on this campus (their thought that everything is equal.)
- Excellent work.
- Hopefully demonstrate to VPRCAAT and upper admin the VALUE of these program awards to faculty to spark new research endeavors. Need to be continued.
- I greatly appreciate the possibility to obtain a grant from this program.
- Wonderful program!
- Turfgrass research is highly industry oriented. Major funding sources are from local turf business and foundation. Due to the souring economic condition and merely existing turf industry in ND, funding opportunities are limited for our turf group. I'd hope to see more research type of grants and awards from FORWARD.

- I greatly appreciate the support from FORWARD program. The support played a significant role in my professional development at NDSU.
- It's a great program for a positive NDSU climate especially for women. I'm fortunate to have been a beneficiary of the program.
- These programs have become so important to my ability to attend conferences and meet with mentors. I worry about the day when the grant funding period is over.
- I think the NDSU FORWARD is an invaluable resource for female faculty on campus.
- Great program!
- These programs have been so valuable to my growth and success here at NDSU.
- Questions 3-6 seem difficult to interpret unambiguously, because they ask about 2 things, 1) did participation in FORWARD grant program influence ___ in some way? 2) Was that influence positive? In most cases my response to (sub)question A would be "no." So my response to selections aren't meant to indicate the grant had a negative influence.
- Thank you for aggressively seeking to improve the campus environment.
- Thank you for the efforts of FORWARD leadership, in making opportunities available for the rest of us.
- Not about program, but thank for taking up the day care issue! (One of the major factors that NDSU had/has going for it when it comes to institutional/material support for female faculty.)
- Thank you!
- FORWARD is one of the boon to NDSU and it has helped in its progress. I'm one of the typical examples who was the beneficiary of the programs and like many of the female faculty whom I know has the same impression. I'm very much thankful to the FORWARD team in taking lecture series, workshops, mentoring opportunities, grants etc., which has been of great help/boost for all the faculty members. I'm very sure that each of the NDSU female faculty had in one way or the other a positive experience with FORWARD. I truly appreciate the TEAMwork and this service towards our GROWTH.
- Good opportunity as a seed for bigger proposals.
- Thanks for supporting my research!
- Very good program.
- Thank you.
- This is a good program that seems to be under-utilized by NDSU faculty members.
- One of the most significant barriers for me at NDSU is the lack of mentorship. The mentor travel grant had been tremendously helpful to me in both accomplishing professional goals and self-care as a woman academic. I am grateful for this opportunity as a non-STEM discipline.
- FORWARD grant was positive but I have left NDSU -> it could not overcome other problems at this school.