

Impacts of Receiving FORWARD Grants/Awards on NDSU Faculty by STEM Status *Summer 2014*

Executive Summary

This report summarizes the impacts that receiving a FORWARD grant/award (i.e., Travel Awards, Course Release Awards, Leap Research Grants, Lab Renovation, Climate-Gender Research Grants, and Leadership Development Award) has on faculty members' careers and productivity. Data collection occurred from April 2014 until August 2014.

The 34 STEM faculty members surveyed associated the following accomplishments with receiving a FORWARD grant/award.

- 101 grants submitted
- 18 grants funded for a total of \$2,455,301
- 37 articles submitted to peer-reviewed journals
- 28 articles accepted for publication in peer reviewed journals
- 6 presentations at international conferences, 38 presentations at national conferences, and 13 presentations at regional conferences

The 36 Non-STEM faculty members surveyed associated the following accomplishments with receiving a FORWARD grant/award.

- 2 grants submitted
- 6 articles submitted to peer-reviewed journals
- 1 article accepted for publication in a peer reviewed journal
- 1 presentation at an international conference, 19 presentations at national conferences, and 4 presentations at regional conferences

Participants were also asked about which of the FORWARD grants/awards were the three most important to continue to fund in order to support women faculty member's promotion, advancement, and retention at NDSU:

STEM Sample

- 30 (88.2%) participants selected the Leap Research Grant
- 25 (73.5%) participants selected the Course Release Award
- 21 (61.8%) participants selected the Mentor Travel Grant

Non-STEM Sample

- 32 (88.9%) participants selected the Course Release Award
- 25 (69.4%) participants selected the Mentor Travel Grant
- 17 (47.2%) participants selected Leadership Development Award
- 17 (47.2%) participants selected the Leap Research Grant

Description of Full Sample

Sixty-eight women faculty members and two men faculty members completed the survey from an overall sample of 95 faculty members who have received at least one FORWARD grant or award. Thus, this survey has a response rate of 73.7%. One participant did not report her STEM status and was therefore excluded from the group comparisons by STEM status in this report. Therefore, the sample size for this report was 69 participants.

Description of the STEM Sample

Thirty-four faculty members from STEM disciplines completed the survey. Of the 34 STEM faculty, 27 (79.4%) were assistant professors, five (14.7%) were associate professors, and two (5.9%) were full professors. All 34 (100.0%) STEM faculty identified as women.

In addition, 25 (73.5%) reported receiving a Mentor Travel Award, 16 (47.1%) received a Course Release Award, 14 (41.2%) received a Leap Research Grant, 12 (35.3%) received a Leap Lab Renovation Grant, four (11.8%) received a Climate/Gender Grant, and four (11.8%) received a Leadership Development Award.

It is important to note that 12 participants reported receiving one FORWARD grant/award, 10 participants reported receiving two grants/awards, seven participants reported receiving three FORWARD grants/awards, four participants reported receiving four FORWARD grants/awards, and one participant reported receiving five FORWARD grants/awards.

Description of the Non-STEM Sample

Thirty-six faculty members from non-STEM disciplines completed the survey. Of the 36 non-STEM faculty, 20 (55.6%) were assistant professors, 13 (36.1%) were associate professors, and three (8.3%) were full professors. Thirty-four (94.4%) non-STEM faculty identified as women and two (5.6%) identified as men.

In addition, 21 (53.8%) reported receiving a Mentor Travel Award, three (8.3%) reported receiving a Course Release Award, one (2.8%) reported receiving a Leap Research Grant, two (5.6%) received a Climate/Gender Grant, and 17 (47.2%) received a Leadership Development Award.

It is important to note that 28 participants reported receiving one FORWARD grant/award and eight participants reported receiving two grants/awards.

Perceptions of the Overall Impact of Grants and Awards

Each of the five 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 five goals are about Retention, Promotion and Tenure, Leadership, Climate, and Recruitment. The below tables report the overall frequencies and at the bottom of each table is the overall mean, the mean for the STEM faculty, and mean for the Non-STEM faculty.

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
Strongly Disagree	3	4.3	4.5
Disagree	4	5.7	10.6
Somewhat Disagree	2	2.9	13.6
Somewhat Agree	17	24.3	39.4
Agree	21	30.0	71.2
Strongly Agree	19	27.1	100.0
Missing Data	4	5.7	
Total	70	100.0	

Overall Mean= 4.61 (SD= 1.35); For STEM faculty = 4.87; For non-STEM faculty = 4.37; no significant STEM status difference.

STEM participants also provided the following comments about their decision to remain at NDSU:

- [Disagree] I still have not decided whether I want to stay. Department climate is the reason for the doubt.
- [No response] Neutral.
- [No response] Cannot say at the moment.

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
Strongly Disagree	1	1.4	1.5
Disagree	4	5.7	7.5
Somewhat Disagree	1	1.4	9.0
Somewhat Agree	10	14.3	23.9
Agree	26	37.1	62.7
Strongly Agree	20	28.6	92.5
NA+	5	7.1	100.0
Missing Data	3	4.3	
Total	70	100.0	

Overall Mean= 4.87 (SD= 1.18); For STEM faculty = 5.23; For non-STEM faculty = 4.53; no significant STEM status difference.
+ Already tenured and promoted to full professor before receiving my FORWARD grant

A STEM participant also provided the following comment about the PTE process:

- [No response] Cannot say at the moment.

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
Strongly Disagree	1	1.4	1.4
Disagree	3	4.3	5.8
Somewhat Disagree	11	15.7	21.7
Somewhat Agree	21	30.0	52.2
Agree	20	28.6	81.2
Strongly Agree	12	17.1	98.6
N/A	1	1.4	100.0
Missing Data	1	1.4	
Total	70	100.0	

Overall Mean= 4.35 (SD= 1.17); For STEM faculty = 4.09; For non-STEM faculty = 4.58; 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
Strongly Disagree	4	5.7	5.9
Disagree	5	7.1	13.2
Somewhat Disagree	3	4.3	17.6
Somewhat Agree	16	22.9	41.2
Agree	21	30.0	72.1
Strongly Agree	19	27.1	100.0
Missing Data	2	2.9	
Total	70	100.0	

Overall Mean= 4.50 (SD= 1.44); For STEM faculty = 4.75; For non-STEM faculty = 4.28; no significant STEM status difference.

One STEM participant also provided the following comment on the NDSU campus climate:

- [Disagree] Money is not everything. Climate is about people's behavior.

The FORWARD program and grants had a significant impact on my decision to come to NDSU.

	Frequency	Percent	Cumulative Percent
Strongly Disagree	3	4.3	4.4
Disagree	9	12.9	17.6
Somewhat Disagree	3	4.3	22.1
Somewhat Agree	3	4.3	26.5
Agree	4	5.7	32.4
Strongly Agree	1	1.4	33.8
NA+	45	64.3	100.0
Missing Data	2	2.9	
Total	70	100.0	

Overall Mean= 2.95 (SD= 2.96); For STEM faculty = 3.00; For non-STEM faculty = 2.92; no significant STEM status difference.
+ Came to NDSU prior to the FORWARD program and grants existence

Non-STEM participants also provided the following comment on the impact the FORWARD grants/awards had on their decision to come to NDSU:

- [Disagree] Did not know about it.
- [NA] Or did not know about it when I came.

My departmental colleagues positively perceived the FORWARD award/grant(s) I received.

	Frequency	Percent	Cumulative Percent
Strongly Disagree	3	4.3	4.8
Disagree	5	7.1	12.7
Somewhat Disagree	3	4.3	17.5
Somewhat Agree	20	28.6	49.2
Agree	18	25.7	77.8
Strongly Agree	14	20.0	100.0
Missing Data	7	10.0	
Total	70	100.0	

Overall Mean= 4.38 (SD= 1.36); For STEM faculty = 4.59; For non-STEM faculty = 4.21; no significant STEM status difference.

Participants were also provided a space to make comments on their departmental colleague's perception of the FORWARD award/grant(s) they received:

STEM Sample

- [Disagree] My male colleagues are often commenting that it is "unfair" for female-only awards.
- [No response] I am not sure that these awards are well perceived. Some male faculty think that it is not "fair" that women get so many extra opportunities just because they are women.
- [Somewhat agree] Some people saw it as an accomplishment. Some saw it as an unfair advantage.
- [Strongly disagree] I think they view these as "non-competitive grants" with no merit whatsoever. They definitely do not count at all toward tenure in my department, and I believe they have hurt my standing in a couple of instances. For example, certain faculty members have said that I have not done my fair share of work because I had the course release grant.
- [Somewhat agree] It's not very much counted as a grant from the perspective of our department. I think that our department does not think that FORWARD grants are competitive; if you are a woman, that's enough to get it. I disagree with this point, but this is the opinion of many male faculties at our department.
- [Somewhat disagree] Not positive or negative.
- [No response] No idea!
- [No response] I do not know.
- [No response] Not sure.

Non-STEM Sample

- [Strongly disagree] No one cares. These aren't seen as external awards that were earned.
- [Somewhat disagree] FORWARD is a great organization that helps to promote female faculty on campus.
- [Somewhat agree] No negatives – equally positive about all FORWARD grants.
- [Agree] ACE leadership has a good reputation.
- [Somewhat agree] I am not sure my colleagues are aware I received a travel grant.
- [Disagree] Pretty sure they aren't aware.
- [Strongly disagree] I don't think they knew or if they did they didn't care.
- [No response] Not sure how my colleagues feel.
- [No response] Not sure.

Mentor Travel Awards

STEM Sample

The 25 STEM participants who received a travel award reported that the below accomplishments were associated with receiving a FORWARD Travel Award:

- 2 (8.0%) participants presented at regional conferences
- 16 (64.0%) participants presented at national conferences
- 2 (8.0%) participants presented at international conferences
- 8 (32.0%) participants made progress on a research article
- 11 (44.0%) participants made progress on a grant proposal
- 22 (88.0%) participants met with collaborators
- 21 (84.0%) participants networked with other professionals
- 22 (88.0%) participants received mentorship that helped with career development and advancement
 - On average, these participants met with 1.82 (SD = 0.85) mentors
 - 9 (36.0%) participants met with a graduate school advisor
 - 7 (28.0%) participants met with a mentor for the first time

STEM participants also provided these additional outcomes they associated with receiving a Mentor Travel Award:

- Planned and later implemented collaborative research project.
- Visit their research labs on site.
- Mentor offered to become a collaborator!

Non-STEM Sample

The 21 non-STEM participants who received a travel award reported that the below accomplishments were associated with receiving a FORWARD Travel Award:

- 1 (4.8%) participant presented at a regional conference
- 13 (61.9%) participants presented at national conferences
- 13 (61.9%) participants made progress on a research article
- 3 (14.3%) participants made progress on a grant proposal
- 17 (81.0%) participants met with collaborators
- 14 (66.7%) participants networked with other professionals
- 19 (90.5%) participants received mentorship that helped with career development and advancement
 - On average, these participants met with 1.89 (SD = 1.10) mentors
 - 11 (52.4%) participants met with a graduate school advisor
 - 6 (28.6%) participants met with a mentor for the first time

A non-STEM participant also provided this additional outcome she associated with receiving a Mentor Travel Award:

- Had three articles published.

Course Release Awards

STEM Sample

The 16 STEM participants who received a course release awards reported that the below accomplishments were associated with receiving a FORWARD Course Release Award:

- 9 (56.3%) participants began a new research project
- 13 (81.3%) participants submitted at least one peer-reviewed article
 - On average, these participants submitted 2.75 (SD = 1.86) articles
 - Overall, these participants submitted a total of 33 articles
- 11 (68.8%) participants submitted at least one peer-reviewed article and had that article accepted
 - On average, these participants had 2.50 (SD = 1.84) articles accepted
 - Overall, these participants had 25 articles accepted
- 10 (62.5%) participants began writing a new grant proposal
- 11 (68.8%) participants submitted at least one grant proposal to a funding agency
 - On average, these participants submitted 3.80 (SD = 3.19) grants proposals
 - Overall, these participants submitted a total of 38 grant proposals
- 4 (25.0%) participants submitted at least one grant proposal and had that proposal funded
 - On average, these participants had 2.00 (SD = 0.82) grants funded
 - Overall, these participants had a total of 8 grants funded, totaling \$288,346
- 3 (18.8%) participants presented at a regional conference
- 8 (50.0%) participants presented at a national conference
- 8 (50.0%) participants earned tenure
- 2 (12.5%) participants earned promotion from assistant to associate professor

STEM participants also provided these additional outcomes they associated with receiving a Course Release Award:

- Organized and hosted a research symposium (approximately 100 attendees).
- Two grants were unfunded, three are still pending. Passed third year review.

Non-STEM Sample

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

- 3 (100.0%) participants began a new research project
- 3 (100.0%) participants each submitted a peer-reviewed article
 - Overall, three articles were submitted
- 1 (33.3%) participant submitted a peer-reviewed article and had that article accepted
- 1 (33.3%) participant began writing a new grant proposal
- 1 (33.3%) participant submitted at least one grant proposal to a funding agency
- 1 (33.3%) participant presented at a regional conference
- 3 (100.0%) participants presented at a national conference
- 1 (33.3%) participant earned tenure
- 1 (33.3%) participant earned promotion from associate to full professor

Leap Research Grants

STEM Sample

The 14 STEM participants who received a leap grant reported that the below accomplishments were associated with receiving a FORWARD Leap Research Grant:

- 10 (71.4%) participants wrote a new grant proposal
- 12 (85.7%) participants submitted at least one new grant proposal to a funding agency
 - On average, these participants submitted 3.00 (SD = 2.73) grants
 - Overall, participants submitted a total of 36 grants
- 4 (28.6%) participants had at least one a grant proposal funded
 - On average, these participants had 1.50 (SD = 0.58) grants funded
 - Overall, six grants were funded for a total of \$696,955.00
- 5 (35.7%) participants presented at a regional conference
- 7 (50.0%) participants presented at a national conference
- 4 (28.6%) participants presented at an international conference
- 5 (35.7%) participants earned tenure and promotion from assistant to associate professor

STEM participants also provided these additional outcomes they associated with receiving a Leap Research Grant:

- Publications.
- Invited speaker at other universities.
- Published an article.
- Provided partial assistantship to graduate student toward PhD program.
- Still ongoing.

Non-STEM Sample

One non-STEM participant received a leap grant reported that the below accomplishments were associated with receiving a FORWARD Leap Research Grant:

- 1 (100%) participant wrote a new grant proposal
- 1 (100%) participant submitted one new grant proposal to a funding agency
- 1 (100%) participant presented at a regional conference
- 1 (100%) participant presented at a national conference
- 1 (100%) participant presented at an international conference

One non-STEM participant also provided this additional outcome she associated with receiving a Leap Research Grant:

- Published manuscript based on research funded.

Leap Lab Renovation Grant

STEM Sample

The 12 STEM participants who received a leap lab renovation grant reported that the below accomplishments were associated with receiving a FORWARD Leap Lab Renovation Grant:

- 5 (41.7%) participants wrote a new grant proposal
- 4 (33.3%) participants submitted at least one new grant proposal
 - On average, these participants submitted 6.75 (SD = 5.74) grant proposals
 - Overall, participants submitted a total of 27 grant proposals
- 3 (25.0%) participants submitted a grant proposal and had that proposal funded
 - On average, these participants had 2.00 (SD = 1.00) grants funded
 - Overall, participants had six grants funded for a total of \$1,470,000.00
- 3 (25.0%) participants presented at a regional conference

- 3 (25.0%) participants presented at a national conference
- 1 (8.3%) participant earned tenure and promotion from assistant to associate professor

STEM participants also provided these additional outcomes they associated with receiving a Leap Research Grant:

- Got up to date facilities – the old facility was hazardous.
- Presented research (or was co-author of research presented) at a national and regional conference, made progress on a research article, met with collaborators, networked with other professionals, made progress on a grant proposal. All this was possible due to well organized and fully functional work space for my group that I was able to create due to the Leap Lab Renovation Grant I got in 2011. Now I can bring visitors and seminar speakers into my lab. We have well-organized place for discussions, while I also can show our lab, equipment, and work of students. This indeed increases productivity of my group and helps to create scientific network and fruitful collaborations. Nice and well organized work stations also help to attract more students who want to work in my lab.
- Supported graduate student research.
- Lab renovation not complete.
- Renovation still being completed, but this was used to recruit and retain graduate students.

Climate-Gender Research Grant

STEM Sample

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

- 3 (75.0%) participants submitted one peer-reviewed article
- 3 (75.0%) participants submitted one peer-reviewed article and had that article accepted
- 3 (75.0%) participants presented at a national conference
- 1 (25.0%) participant earned tenure and promotion from assistant to associate professor
- 3 (25.0%) participants learned about the value of interdisciplinary research
- 1 (25.0%) participant experienced increased acceptance by colleagues in her unit for her gender/climate related research

Non-STEM Sample

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

- 1 (50.0%) participant earned tenure and promotion from assistant to associate professor
- 1 (50.0%) participant learned about the value of interdisciplinary research
- 2 (100%) participants experienced increased acceptance by their colleagues for gender-climate related research

One non-STEM participant also provided this additional outcome she associated with receiving a Climate-Gender Grant:

- Made progress on a research article and met with collaborators. Data collection is not yet complete.

Leadership Development Award

STEM Sample

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

- 4 (100%) participants networked with other professionals
- 2 (50.0%) participants were able to identify skills that will help them be competitive for leadership positions at NDSU
- 3 (75.0%) participants acquired new skills that would help them be competitive for leadership positions at NDSU

One STEM participant also provided this additional outcome she associated with receiving a Leadership Development Award:

- Learned new information that will help in current leadership position.

Non-STEM Sample

The 17 non-STEM participants who received a leadership award reported that the below accomplishments was associated with receiving a FORWARD Leadership Development Award:

- 17 (100%) participants networked with other professionals
- 17 (100%) participants were able to identify skills that will help them be competitive for leadership positions
- 15 (88.2%) participants were able to acquire new skills that would help them be competitive for leadership positions at NDSU
- 1 (5.9%) participant was able to acquire new knowledge that would help her be competitive for leadership positions at NDSU
- 3 (17.6%) participants acquired new leadership positions at NDSU
- 1 (5.9%) participant presented at a regional conference
- 2 (11.8%) participants presented at a national conference

Non-STEM participants also provided these additional outcomes they associated with receiving a Leadership Development Award:

- Belief that I could be a leader.
- Was offered a position outside NDSU.
- Became a better leader. Was able to create new opportunities for my department and the community.
- I've been using the skills in my current leadership position.
- Used new skills in a leadership position at NDSU that I had been selected for a few months before the leadership development workshop.

Future Funding of FORWARD Grants

Participants were asked about which of the FORWARD grants/awards were the three most important to continue to fund in order to support women faculty member's promotion, advancement, and retention at NDSU:

STEM Sample

- 30 (88.2%) participants selected the Leap Research Grant
- 25 (73.5%) participants selected the Course Release Award
- 21 (61.8%) participants selected the Mentor Travel Grant
- 10 (29.4%) participants selected the Leap Lab Renovation Grant
- 11 (32.4%) participants selected Leadership Development Award
- 1 (2.9%) participant selected the Climate-Gender Research Grant

One STEM participant also provided the following comments about future funding of the FORWARD grants:

- [Course Release award] Most important!

Non-STEM Sample

- 32 (88.9%) participants selected the Course Release Award
- 25 (69.4%) participants selected the Mentor Travel Grant
- 17 (47.2%) participants selected Leadership Development Award
- 17 (47.2%) participants selected the Leap Research Grant
- 4 (11.1%) participants selected the Leap Lab Renovation Grant
- 2 (5.9%) participants selected the Climate-Gender Research Grant

One non-STEM participant also provided the following comments about future funding of the FORWARD grants:

- [Mentor Travel award] I am not eligible as a non-STEM department, so I cannot accurately indicate which is most important.

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?

STEM Sample

- I was not able to hold the lab that the lab renovation grant was for. It's back to common equipment space.
- Limited resources at NDSU. Inadequate access to equipment that is available.
- Facilities – getting a bid and getting the work completed, though that's nothing FORWARD would be able to control.
- Finding a suitable person to teach my class.
- No barriers aside from not having full course release – I was still required to teach Senior Capstone.
- I feel I would have been more productive with my FORWARD Leap Grant if it overlapped with the Course Release Award.
- Timeline was short. I needed three extra months to complete the project.
- So far we have made progress toward completion of goals but may need an extension of a few months to achieve goals fully.
- None really – some financial with the lack of clarity or short time to spend monies.
- Wish we had a better and bigger pool of graduate student applicants. NDSU needs to get its name out to a broader population. It's a great school, hope we can attract more students.
- I wish the travel award can be available multiple times a year. Now the fund can be used mostly between February to August.
- Husband not understanding the time that I need to put into work.
- None.
- NA.
- None.
- None.
- None.
- None.
- None.
- None.

Non-STEM Sample

- It was offered during teaching time and given the nature of my classes (hands-on face-to-face), it was difficult rearranging my syllabus and/or getting someone to cover my classes.
- It's hard to find adjuncts to fill in but I was lucky with timing – it worked!
- Time – should have requested a course release as well.
- Not enough time to complete the research project. No mentorship for grant management.
- Only challenge was time commitment.
- Time. Service. No support.
- There were too many overlapping projects, so we have taken longer than expected.
- A minor challenge was balancing the time commitment for the leadership event with other job responsibilities.
- Lack of dean's support.
- I hope the course release/leap research can also be available to female faculty in social sciences.
- Clarity in the application process – some questions of how it overlapped with other funding at the time and whether applicants could receive both awards.
- Childcare challenges during travel.
- Health issues; time to take things further post-award; competing job/life responsibilities.
- Death in family.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.

2. What, if any, challenges or barriers have you experienced in your progress towards promotion and/or tenure?

STEM Sample

- Lack of NDSU and departmental support for research – no start-up, very low AY travel and development funds (\$600/year), no support for qualitative research software, very low graduate student/research assistant support. Lack of program faculty to cover courses making course releases and buyouts difficult and requiring teaching overload at a cost to research and publication. I likely would not have earned tenure and promotion when I did had I not had FORWARD support.
- The funding climate is bleak at most federal agencies. I have not been able to get a major grant from NSF or USDA, even though I have been putting in frequent and multiple submissions.
- Unclear guidelines/benchmarks; lack of “real” feedback about progress; lack of work/life balance; way too much to do (overloaded with work).
- Nature of my research is highly collaborative. This results in many papers written with my collaborators as co-authors. However, many colleagues from my department count it as a weakness, since it decreases the number of papers written by only by my group and me. This misunderstanding of my achievements might negatively result in my promotion and tenure.
- Publication record has not improved at the pace I would like due to agreeing to start many projects from scratch. My program is a “green research program.” Thus, there was a three year gap for publications from the work I started at NDSU.

- Overcoming a belief that my research is not science. This is a barrier for me and my graduate students. Imposter syndrome!
- Much of my work is difficult to evaluate since it's published in foreign journals.
- As a foreign, STEM female scientist I have faced all of the typical hurdles and more in progress towards tenure. I have had to change research focuses and directions to remain competitive as well move from predominantly service related positions to a research and teaching position at NDSU.
- I do feel pulled in multiple directions being extension and research – but that's probably normal. A stronger mentoring program in Extension would be useful.
- Lack of collegiality and support from some members of my department. Numerous attempts to mislead other people (both inside and outside the department) and to minimize and belittle my accomplishments by these faculty.
- One of my greatest (perceived) challenges is feeling isolated in my department (which is about half women and half men). I feel isolated because of my research area and differing world views than my colleagues.
- Chilly climate.
- Probably moving into administration too early in career – I view it as a part of my career development and not a trade off – I'm not giving up my career by going into administration, but I'm not sure that others view it that way. So it is difficult to know how effective leadership skills translate into promotion.
- Too much service.
- Minard collapse, raising young children.
- Balancing family and career.
- Child bearing and care. Course releases (FORWARD and departmental ones) have been the greatest help.
- Only the typical barriers of having a family and finding a work/life balance.
- The amount of work coming from taking care of family challenges me and prevents me from spending more time in research. The pressure coming from family also distracted me.
- Will be able to answer this question next year.
- None.
- None.
- None.
- None.

Non-STEM Sample

- No resources to support research (course buyouts, fund experiments, etc.). No/few grants for non-STEM faculty at NDSU.
- No TA's/RA's first three years. Better now.
- Not having graduate program, not having graduate students, not enough collaboration with other faculty in the department.
- No quality graduate students to work with.
- Too many advisees. Too little infrastructure at NDSU to support research.
- Lack of acknowledgement for creative work, unless it wins an award or competition.
- Not receiving regular mentorship from department as junior faculty.
- Lack of mentoring on campus at NDSU. Minimal pretenure mentoring in my department aside from annual letters.
- Lack of mentoring. An unfair first 3rd year review (had to ask committee to correct their mistakes). Not being included in the informal department network.

- Lore and opinions about time in rank that do not reflect policy. Fear about colleagues who display bullying tendencies being on PTE – perhaps an internal challenge...
- In my department, women have to work harder than male colleagues to receive recognition (i.e., merit pay, positive, annual reviews). There are some men in my department who are supportive of me and my work; however, the few who are not supportive make it difficult to feel comfortable at work.
- I continue to be evaluated more harshly than my male colleagues. It is the micro-contexts of being interrupted when speaking, male golf outings, limited views of what “successful” female professors do, etc.
- Lack of dean’s support.
- Climate is hostile and abusive in my department. People are either afraid of department head or have been sufficiently rewarded to be part of oppressive power structure.
- Being a member of a small department where departmental work is not always shared equally and some members do not complete their assignments.
- I am an associate professor and a department head. It is difficult to find time to develop my portfolio for promotion.
- As soon as I was tenured (actually before I was tenured), I was placed in a high-service coordinator position which required so much time and responsibility my research all but stopped. If a person is highly capable they are given more work which isn’t valued for promotion.
- Given too many responsibilities.
- Time to do research. With a 3/3 teaching load (10 credits/semester) and service, committees, etc., research time is precious.
- Working in cubicles in Ehly Hall for three years of tenure clock.
- I’m pleased to see that maternity leave and modified duties are now available on campus – it was very challenging to deal with childbearing and the care of infants when I was tenure track prior to these changes. 8:30-4:30 meeting schedule is great, too. Wish it was honored for people in administration, too. Provost would keep us until 5:30 or 6:00 sometimes, which presented challenges because I have kids still at home. Also, think the greater recognition of women (as simply present on campus) and their skills has been positive for those on tenure-track.
- Pregnancy/childbirth/childcare; illness; heavy service loads.
- Divorce, personal health issues, financial stress, people perceiving me as weak or “needing help.” In spite of all of the bullshit that accompanies being a young female professor, I still out-perform my colleagues, but they see me as unstable. Unfair.
- Death in family consumed my time.
- Most of the pressure I made upon myself. It may help if motivated people did not get [illegible] so freely but would let more [illegible].
- I have been denied tenure option.
- NONE – A positive experience.
- None so far.
- None.
- None.
- None.

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

STEM Sample

- FORWARD grant helped me to improve my research facilities, applying national grants. I really enjoy the workshops.
- Obtained lab space by having the lab renovation award!!

- I feel I have led our department to upgrading our facilities – super great!
- Get to know a few women faculty on campus, potential collaborators.
- Creation of ties with colleagues in other departments. Also created ties with [Office of] Equity and Diversity.
- I have been able to bring a mentor to Fargo, travel the state with them, strengthen my relationship and explore new collaborative opportunities. Also, I've been able to renovate my lab space into something more useful.
- It's a great feeling to get your first grant! Leap Lab Renovation Grant was the very fast grant I got. This was such an important support from NDSU – like someone was saying – “See, you can do it. Just try farther!” This feeling of support, encouragement, and appreciation of your hard work is very important for junior faculty, especially during their first years.
- I was able to have time to do some strategic planning – in terms of evaluating my career, research, and teaching goals (current and future) and 2) developing a plan to move forward.
- The travel award was useful as it was awarded in my first year at NDSU before I had travel money from grants and was dependent on start-up funds entirely.
- They have helped support my lab and research at a time when federal funding is at an all time low. Despite very strong reviews of my proposal, my proposals have repeatedly run up against agencies not having sufficient funds to fund these grants.
- More confidence in work with support of FORWARD grants.
- It allowed me to speak very, very positively about these opportunities with faculty candidates during interviews.
- Generally seeing the climate at NDSU as more positive.
- As I come from a department where I feel faculty are all treated fairly, I can't really speak to the overall climate improvements. I still run into obstacles almost every day that have to do with gender and perception of what kind of research I do.

Non-STEM Sample

- Satisfaction of being part of a vibrant community of women.
- Getting to know other women researchers and faculty members.
- I got to know other faculty associated with FORWARD.
- Opportunity to meet other women on campus.
- Networked with other women faculty at NDSU opens up potential collaborations.
- Being able to network with women from other disciplines at NDSU.
- Making connections with extraordinary women in professions related to mine.
- Learned so much – felt encouraged to apply for leadership positions outside NDSU, network opportunities to do that, help developing negotiation skills.
- Opportunity to deepen mentor/collaborative relationship in a one-on-one setting which was considerably more helpful than contact at conferences or via email/phone.
- It was helpful to have support to help collaborate outside of my department/NDSU.
- Getting to meet search firm members will be very useful when I am ready to leave NDSU.
- I think being able to travel to more conferences improved my national reputation and offered opportunities for collaboration outside NDSU.
- Yes, this enabled me to pursue projects otherwise difficult. Also, this also allowed me to “jump start” projects to show that I take initiative to start applying for funds outside of the department.
- Helpful to receive grant at start of tenure track; put me on a good trajectory.
- It sparked interest in leadership development among other women in my department.
- Self-confidence in my leadership abilities. A better vision for my career future.
- Recognition from the department and college.
- Insider knowledge from “being at the table.”

- Great information from workshops, luncheons, and other leadership activities on campus. Solidarity among a group.
- I got a lot of information from the speakers, but they all seemed to agree that to get promoted, to get an administrative position, you have to leave NDSU.
- It is not appreciated as something valuable by some administrators.
- College and university colleagues view positively the FORWARD grants and awards.

4. What, if any, improvements have you noticed in the climate at NDSU?

STEM Sample

- There are more women faculty on campus.
- There are more women faculty in general on campus compared to when I started.
- There are more women in mid-career leadership positions.
- More and more female faculty start to take leadership roles.
- Women in leadership positions (new Provost!), more women faculty in CSM and more tenured women, more women on PTE committees. Reduced feeling of being the “token” woman. More men speaking up about climate.
- Again, just a feeling that you are not alone and not just by yourself. This feeling is important for me.
- There seem to be more female assistant professors, but there is still an inability to retain female faculty, and a strong “good ole boy” network.
- Increased awareness, but not necessarily change yet, but soon.
- Increased awareness of climate and gender assumptions, willingness to improve situation by many.
- More awareness by certain colleagues of issues affecting women faculty.
- Huge. More women and much more concern for gender equality. The entire campus (the parts I experience anyway) is different.
- Support from other faculty as I pursue these opportunities.
- I may have one of the best departments – our culture is great here.
- Now I’m happier at work than at home.
- Honestly, with time one starts to see the challenges, barriers that we were initially ignorant of and blind to.
- In terms of institutional culture, very little has changed and some things have become much worse. There is a lot of implicit backlash against FORWARD by some senior male faculty. Structurally we do have more tenured and full professor women and women in administrative/leadership positions but this has yet to really impact the overall climate.
- I don’t feel I have been here long enough to answer this question.
- I have not been resident long enough to adequately assess change.
- I have only been at NDSU for 1 ½ years. I find that the climate in my department is very healthy compared to my previous positions in terms of being progressive, treating women with respect, and having open discussions and valuing opinions.
- Not really.
- None.

Non-STEM Sample

- A WOMAN PROVOST!!!
- More (highly capable ☺!) women in academic leadership positions. Greater awareness of climate and implicit bias.
- More women fulls, more women leaders, more dialogue about diversity.

- More women in leadership positions. Endorsement from the administration for policies that positively affect life/work balance. I am rarely mistaken for an administrative assistant these days, which used to happen quite frequently.
- Things seem better, but I am in a different position. Until we hire women deans and provosts, I don't know if things are better. In my department, many sexist old guys retired.
- I notice fewer "good ol' boys," but administrative changes have also brought more stress (less work/life balance).
- Small improvements in understanding of bias. We have a strong female provost candidate, and hopes to hire her.
- Some institutional bias towards women has been exposed.
- Campus is more accepting of the ideas of women faculty than in the past when we were absolutely invisible. Appreciate seeing more women in leadership or administrative positions although the appointments are typically temporary, for a limited percentage of the time (25% or 50%) and don't carry financial or personal responsibilities.
- It is more collegial towards women and their accomplishments.
- I recently experienced the Advocates and Allies training and enjoyed hearing the reach that program having. I feel men and women have been more willing to acknowledge gender issues at NDSU.
- Acknowledging issues on campus.
- Wider embrace of (traditionally) "women's issues" like childcare; visible support for female faculty experiencing trouble at the institutional level – like the Planned Parenthood grant.
- Greater awareness of gender equity issues.
- Faculty and administrators are more aware of climate problems, their causes, and ways to remedy them. The program creates many opportunities for faculty to get ideas from people at other institutions, which improve the climate here through the intellectual exchange.
- We talk about it.
- Having some form of child care leave policy (none existed before) is an improvement. Women faculty members seem to have more opportunities to travel and do research.
- It seems there are still more male faculty than female faculty. The ally training seems to have improved the etiquette of some male faculty in the department.
- Climate continues to improve, but we still have a long way to go.
- The climate at NDSU and in North Dakota is shifty and strangely political. It's best to stay under the radar if at all possible.
- I hear of programs that might bring in diversity and improve climate. I am personally yet to experience any improvements.
- It's a more sophisticated brand of exclusion, sexism.
- None. It's worse. The change in upper administration set us back 20 years. Neither the current president nor the provost appear to have any interest in removing sexist leaders.
- It has gotten worse in my college – maybe not university wide though.
- I don't feel I have been here long enough to answer this question.
- I haven't been here long enough to have perspective on that.
- Haven't been here long enough to have a basis for comparison.
- I have not noticed any improvement; this may be due to the location of my office.
- None that I can attribute directly to FORWARD.
- Not sure.
- Nothing noticed.

5. What, if any, challenges or concerns do you have about the climate at NDSU?

STEM Sample

- People thinking it is all better; we're done. Lack of appreciation for all types of diversity (race, sexual orientation, religion, culture). Teaching the value of diversity to students.
- I do feel that there is an "implicit bias," perhaps at the subconscious level, about minorities in terms of trust and support.
- I do think that some of the "old school" male faculty can be a roadblock to young female faculty – but it is separate and negligible at most. It might also be the case for young male faculty as well but I don't know.
- It is not going to change until there are some retirements, all administrators (department to university) take very seriously the experiences and struggles of their female faculty and students, and those who continue to make the climate negative are formally disciplined for their actions.
- That we keep moving forward. That women are not pushed into leadership positions before they are ready. That improved stats (e.g., more women faculty) are not the only evidence considered for improved climate at NDSU.
- There is still a pay differential and differential expectations.
- There is a general lack of unity across campus right now. When the university becomes fractured we are more likely to fall into biases: pinning "other-ness" to groups (minorities, different units, etc.) which will derail some of the progress we've made over the years.
- I do not feel the faculty at NDSU are receptive to certain political and religious affiliations or beliefs.
- The biggest problems are related to the culture shift that occurred when the status of the university changed to R1. Senior/experience vs. junior/inexperience dynamic is confounded by changing expectations. Junior faculty accomplishments and expectations for accomplishment are being judged by individuals that were not held to the same standard.
- Maternity leave, spousal accommodations, clear expectations about performance – these are key for the retention of faculty.
- Visible accessibility to lactation rooms for mothers and paid family leave.
- Most of the women who are now in leadership positions are affiliated with Advance FORWARD. This makes me doubt the support of others, in particular from the international community. I am also under the impression that not all of the people (male/female) that are commonly moving up are qualified for the job and supportive of others.
- Have attended a few presentations on gender issues, bully in academics, etc. in Pedagogical Luncheon. Other than that, have not seen other activities on campus.
- I think it is good here. I do feel as if we (women) are told a lot that we have it bad/or have a hard go of it because we are women. I think that is false – it seems to beget a "victim" like mentality. I know that data points to this overall – but I would like to see more positive messaging. We all make choices on how we handle things – I would value more positive messaging and how we (women in science or women awarded by FORWARD) can assist in talking a more positive message.
- The change is positive. It takes a slow process to change the climate of an organization. FORWARD has been making great impact on campus climate improvements.
- NDSU maintains a good climate for female faculty.
- I have been fortunate in that I have a very supportive department/chair/dean so it is difficult for me to identify challenges at this time.

Non-STEM Sample

- The equity – lack thereof is very prominent and vile.
- The faculty and administration are aware, but there is less awareness among support staff.
- Bullying runs rampant across all genders. People confuse work/life balance with parenting. Powerful men continue to display sexist, racist, etc. practices with complete impunity - Grafton.
- There are some terrible, criminal levels of harassment occurring. Reporting through EO office exacerbates problems, which are exploded and individually dealt with, rather than reported and documented so patterns can be responded to.
- I fear that since my male coworkers are all very smart men, the sexism has just gone underground – it has not changed. They are still just as sexist in their choices, decisions as previously, they just don't talk about it openly anymore. I have been forced to listen to conversations on more than one occasion when they were not aware I was in my office and when it's "just the boys" nothing has changed.
- Sexism continues to be an issue, especially with men administrators. It is clear the good ole boy network continues given who is appointed to positions.
- Continued implicit bias. Still very male, especially in upper administration.
- I haven't experienced problems first hand, but I know others have had issues whether due to gender, race, ethnicity, or sexuality.
- Some of the older male professors perceive female faculty as "bullying" them because we are perhaps more assertive!
- People thinking that acknowledging is enough – not being moved to action. There are still many people in professorships and leadership roles who carry on the "old" ways of viewing women on campus.
- Most of the upper administration (like the deans) is still dominated by older, white men; makes it harder to see myself there.
- NDSU continues to have a culture of "promoting up bad behavior" instead of firing or requiring individuals (men) to make changes and be held accountable. We need administrators who will hold others accountable. We continue to need education about gender equity issues and sexism.
- It's still an environment where the big conversations are run by men. The men sit back with their arms folded over their chests, carefully negotiating their involvement. The women lean forward, eager to participate, to cooperate, and to move the agenda ahead.
- There are a few men in my department who talk over female faculty and negate any thoughts or input of female faculty. I complained to my supervisor and was told that he does not see a problem. Some of the FORWARD "advocates" (male) are not advocates in their actions, which is disappointing.
- We can't seem to hire women advanced administrators; people don't follow good policy and don't get reprimanded for it.
- I published almost double the required peer-review publications required for tenure, yet my department committee rated my scholarship as only "meets expectations." I feel I have to do more than others to be considered only adequate. For this and many other reasons, I still don't feel that I belong at NDSU. My presence is usually tolerated, but no more.
- Work load – but not for everyone.
- Too much focus on research and grants and less focus on teaching.
- Most resources for research are targeted towards STEM faculty. Faculty doing non-STEM work are mostly shut out of the process. We need some resources for non-STEM faculty research (not travel or leadership awards).
- Still on department levels, many challenges. Not sure any grant will solve.

- Unfortunately, if faculty encounter climate problems at any level (especially departmental) early in their careers that hold them back, it can be difficult to recover from. From anecdotes that I hear, there are still climate problems at the department level in a number of departments.
- Work/life is WAY out of balance. It seems everyone I talk to is increasingly burnt-out.
- It would be wonderful to have confidential support for junior female faculty on campus.
- I am concerned that many of the improvements we made will revert back to the way things used to be once we are no longer reporting on the objectives of the grant and financial support is not as readily available.
- Most people who have tried to change things are moving into administrative positions and appear to be afraid now to speak up and keep really questioning the power structure.
- I think men have learned that it is a career advantage to be associated with FORWARD. In my experience their support, whether genuine or not, is rewarded much more than my success in accessing FORWARD support. I was actually in a meeting where an ally said “yeah, but he looks like a full professor” as rationale for promotion.
- Covered in recent surveys.
- None.
- None.
- None.

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

STEM Sample

- As a part of this award it would be good to have a senior researcher with grant experience provide feedback on grant draft or during the award year to help determine the best way to obtain preliminary data toward full grant.
- I would suggest organizing more semi-formal or informal meetings for all faculties (not only women), where junior faculty can share their concerns, questions, experience, etc. Special topics of discussions can be announced and led by volunteers.
- Having a break from the course I teach every fall was invaluable – I think these awards are helpful, and I hope they continue in the future.
- As noted above, I likely would not have earned tenure and promotion when I did had I not had FORWARD support. Thank you!
- All those involved in FORWARD/ADVANCE are doing an amazing job!
- Great program. Hope it continues!
- I am very thankful for the support I have received from FORWARD and feel it has made a great impact on my career.
- It is an excellent program and one that I am thankful to have access to as it has enabled me to participate in meetings and complete work towards tenure that I otherwise might not have been able to do.
- Kudos to the FORWARD team for the great work!
- Thank you!
- FORWARD has been central to my success at NDSU!
- I believe FORWARD is a very much needed program which is doing a great job of achieving its mission and values at NDSU.
- This is an excellent program and I do think it helps retain female faculty.

Non-STEM Sample

- I’m still not sure what the Allies/Advocates do...
- Thank you for your tenaciousness in dealing with gender-bias at NDSU.
- Thanks for all of the hard work.

- Thank you for your continued support.
- Canan is a great leader. The administration at NDSU is very vile in terms of equity.
- Outstanding programming; highly appreciated across campus.
- Keep it up! Marginalized faculty ALWAYS need support.
- Thank you for the opportunity!
- Thank you for your support!!
- Thanks, FORWARD. You've given me many tools to be a better advocate for self and others.
- Without changing the leaders who are the worst offenders, nothing will ever truly change.
- The FORWARD grants program is a valuable program at NDSU. Supporting and fostering advancement of women faculty. We hope it can be expanded!
- Thanks for all you do.
- FORWARD grants and awards were helpful to many people – thanks!
- I'm very grateful for the programs. They made a big difference for my career at NDSU.
- Thank you for all you do!