

NDSU ADVANCE Institutional Transformation Award, HRD-0811239 Five Month Progress Report

Attached please find the NDSU FORWARD's plans for dissemination of results, lessons learned and promising practices. The dissemination plan included here updates and expands that described in our initial proposal on pages 13-14.

This dissemination portion of this report (pp. 2-5) is organized around the five activities described in the original proposal:

- Share FORWARD's experiences of institutional change with similar institutions
- Disseminate research results at professional conferences and in peer reviewed journals.
- Record and share video of FORWARD activities, trainings, interventions for DVD distribution to interested parties.
- Report regularly to the NSF.
- Post research results and collected data to the FORWARD website.

A revised 5-year timeline for dissemination (p. 6) follows the detailed dissemination plan; it, too, is based on the five activities described in the proposal.

Also attached is the program evaluation form (pp. 7-8) to be used with participants in various training sessions as a mean to assess the effectiveness of particular intervention strategies. This evaluation form was developed by Dr. Christi McGeorge, a member of the NDSU FORWARD team.

The web page for FORWARD can be found at <http://www.ndsu.edu/forward>

The evaluation plan, designed by our external evaluator, Metis Associates, is included as the final part of this report. It extends the information included in our original proposal, pages 11-13.

Share FORWARD's experiences of institutional transformation

In an effort to share the expertise FORWARD team members will develop as part of our work on the ADVANCE IT grant, we intend to market to campuses across the country the availability of FORWARD members to visit and make presentations about our project, its findings, and accomplishments. We will specifically target land grant universities and/or other institutions similar to NDSU, such as Montana State, Wyoming, South Dakota State University. Such campus visits will be free to interested institutions, and the ADVANCE FORWARD grant will support travel for FORWARD members in Year 5. However, several steps will prepare the FORWARD team for this work:

- FORWARD team members undertake training in gender and diversity issues, LEAD training, training advocates and allies, leadership training, and training search committees after outside trainers and consultants are brought in to NDSU. (Year 1)
- FORWARD team members develop, deliver, and assess our own training modules, based on best practices, on our own training, on the goals of our program and institutional context. (Years 1-4)
- FORWARD team members evaluate success of programs and training, sharing results at a wide variety of conferences, through proceedings, and in both peer-reviewed and trade journals. (Years 1-4)
- FORWARD team publicizes areas of greatest success and offers opportunities for consulting or training to other universities. (Years 4 and 5)

We have been pleasantly surprised by how quickly we have been contacted by women faculty at other universities—those exploring ADVANCE applications, and those interested in the kinds of change FORWARD hopes to accomplish. Examples come from two very different institutions: faculty at Rochester Institute of Technology (RIT) are interested in guidance concerning institutional data collection as a force for institutional change, and UNC Chapel Hill contacted us about our ADVANCE proposal and programs, presumably in order to develop their own proposal. Both these examples suggest that there are institutions that would welcome opportunities to meet with team members about the processes of institutional change from early data collection to specific program development, to evaluation of program successes.

Disseminate research results

We plan two avenues for traditional dissemination our Advance FORWARD project's research findings at our disciplines' major national conferences and proceedings and in refereed publications and appropriate newsletters and trade journals. The variety of disciplines represented by FORWARD members assures that our findings will be widely shared. Below we list some specific avenues for dissemination activities, as well as three current projects and the strategies we have developed for disseminating them.

- **Conferences and proceedings.** ADVANCE related conferences (poster at Iowa State, 2008); American Association for Higher Education Annual Convention; American Sociological Association, American Society of Engineering Education (poster for 2009); Cultural Studies Association; Midwest Sociological Society; National Communication Association; National Council on Family Relations Annual Conference; National Women's Studies Association Conference; Rhetorics and Feminisms; Society of Women Engineers; Women in Engineering Pro-active Network (2 papers published in proceedings, 2008; two papers and a poster in preparation for the 2009 conference).
- **Refereed publications.** *Academy of Management ANNALS; Advancing Women in Leadership; Family Process; Family Relations; Gender and Education; Gender and Society; Journal of Diversity in Higher Education; Journal of Engineering Education; Journal of Feminist Family Therapy; Journal of Higher Education; Journal of the Professorate; Journal of Women and Minorities in Sciences and Engineering; National Women's Studies Association Journal; New Directions (a series); Research in Higher Education; Sex Roles; Social Forces; Sociological Quarterly; Sociology of Higher Education; Sociology of Work and Occupation*

We are currently working on three articles using data collected in developing the ADVANCE grant. The first employs muted group theory to understand why women leave our institution for very different reasons than men leave. The second analyzes data comparing faculty satisfaction at the institution based on STEM-non-STEM divisions. The final project explores the possibility of proposing a special issue of *Journal of Women and Minorities in Science and Engineering* to collect data and disseminate from change resulting from ADVANCE funding.

The FORWARD team's strategy is to encourage all team members to publish their research on our projects in the journals of their field, in order to assure that the research moves team members forward in their own careers.

- **Trade journals and newsletters.** Another important place to begin sharing project ideas and successes is within the trade journals and newsletters of our various disciplines. Not only will this activity help the FORWARD team make the necessary contacts for our year five training and consulting activities, it will enable us to share results with a wider group of readers than those who read professional journals. Some of these outlets are: *Association for Women in Science Newsletter; CSWM Communicator; Microbe; SWE Magazine; Women in Higher Education.*

Record and share video

We plan to create a record ADVANCE FORWARD training, meetings, activities, events, and notable campus changes in digital film format. By filming regular FORWARD activities, we will do several things:

- Create annual documentary evidence of the program's success on campus, particularly unique components of our project such as the training of men as advocates and allies.
- Develop examples of training and other consulting services the FORWARD team will offer.
- Develop material in DVD format that could be employed across campus or on other institutions, specifically record visiting speakers for campus members unable to attend.
- Design, edit, and distribute a final ADVANCE FORWARD DVD. (Year 5)
- Use five-year plan as master for identifying ongoing activities that need to be filmed. (Speakers, training, EAB meeting events, and campus interventions, networking and mentoring events.)

Report regularly to the NSF

Our dissemination plans include reporting regularly to NSF ADVANCE, inviting program directors to attend major activities, and utilizing our external advisory board to keep NSF ADVANCE aware of our activities and their results.

Post results and data to the FORWARD website

FORWARD team members regularly post the results of research to our FORWARD website, which offers links to proceedings, most recent institutional reports of 12 indicators, published abstracts, posters, reports, white papers, and internal and external presentations. We want to make these materials as easily accessible to both the campus community and the larger ADVANCE community as possible.

Table 1: Five-Year Timeline for ADVANCE FORWARD Activities

Dissemination	Year One	Year Two	Year Three	Year Four	Year Five
Share FORWARD expertise:					
▪ Undertake training	■	■	■		
▪ Develop, deliver, assess training		■	■	■	■
▪ Evaluate and disseminate		■	■	■	■
▪ Publicize and offer services			■	■	■
Disseminate research:					
▪ Conferences and proceedings	■	■	■	■	■
▪ Refereed, discipline specific publications		■	■	■	■
▪ Trade journals and newsletters		■	■	■	■
Record and share digital video:					
▪ Create annual documentary		■	■	■	■
▪ Develop short training/consulting examples		■	■	■	■
▪ Develop/post materials in DV format		■	■	■	■
▪ Final FORWARD documentary		■	■	■	■
▪ Plan to film ongoing activities		■	■	■	■
Report regularly to the NSF:					
▪ Write quarterly/annual reports	■	■	■	■	■
Post results to forward website:					
▪ Develop materials for FORWARD site	■	■	■	■	■

Figure 1: This timeline shows the major dissemination activities planned for the next five years of NSF ADVANCE funding for NDSU FORWARD.

Bibliography of presentations and publications:

Bilen-Green, Canan, Elizabeth Birmingham and Ann Burnett. "A Framework for Institutional Transformation at North Dakota State University." Source: Proc. of the 2008 WEPAN National Conf. (Toronto: X-CD Technologies, 2008).

Bilen-Green, Canan Karen A. Froelich, Sarah W. Jacobson. "The Prevalence of Women in Academic Leadership Positions, and Potential Impact on Prevalence of Women in the Professorial Ranks." Source: Proc. of the 2008 WEPAN National Conf. (Toronto: X-CD Technologies, 2008).

FORWARD TEAM. "Advancing Women Faculty at North Dakota State University." Poster. The New Norm of Faculty Flexibility: Transforming the Culture in Science & Engineering, Iowa State University, Ames, IA, October 2008.

***Program Title/Topic** _____ **Program Date** _____

The following statements ask for your opinion about the program you attended today. Please circle the number that best describes your level of agreement according to the following scale:

Program Evaluation	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I will be able to use the information that I learned today.	1	2	3	4
2. I feel that my knowledge of how to address the gendered climate at NDSU has increased after today's program.	1	2	3	4
3. I would recommend this program to others.	1	2	3	4
4. The presentation/program was clear and well-organized.	1	2	3	4
5. The information presented will be of value to me in my current position.	1	2	3	4
6. The depth of information provided was appropriate for my needs.	1	2	3	4
7. The program was structured in a way that provided a good learning environment for me.	1	2	3	4
8. I feel I've acquired new skills, information or understanding about gender at NDSU.	1	2	3	4
9. I will be able to implement new strategies and knowledge as a result of my participation in this program.	1	2	3	4

10. How would you rate the overall quality of this session? (please circle on number)

Poor	Below Average	Average	Above Average	Excellent
1	2	3	4	5

11. How could this program be improved to be more beneficial to you?

12. What questions do you still have after attending this program? Please list any areas of the training that you would like to receive additional information about or that need further clarification.

13. What do you think were the most helpful or valuable aspects of the program you attended today?

14. What recommendations do you have for future programs?

15. Please provide any additional comments you have about today's program on the back of this page.

* This evaluation will be a one-page form when it is used with participants in various training sessions.

This program session evaluation was developed by Dr. Christi McGeorge who is a member of the NDSU FORWARD team.

North Dakota State University
ADVANCE: FORWARD Grant
Evaluation Design

The FORWARD grant has retained Metis Associates to serve as the local evaluator of the ADVANCE initiative. Metis Associates is a national research and consulting firm formed in 1977 to provide human services evaluation, research, and design support to public, philanthropic, and private-sector organizations. During Metis' 30-year history Metis has worked on a wide range of educational program evaluations and research projects in K-12 settings as well as at the university level. In particular, Metis Associates has experience in evaluating higher education initiatives, including NSF-funded Math Science Partnerships and Local Systemic Change projects as well as U.S. Department of Education programs funded through FIPSE and a program funded by the National Institutes of Health. Dr. Lori Gerstein Ramsey, Senior Research Associate, will direct the evaluation, and will be supported by a team of researchers, data analysts, information technology specialists, and data entry assistants to carry out the evaluation activities.

In collaboration with FORWARD staff, Metis has conceptualized a comprehensive evaluation design that will include formative (process) and summative (outcome) components. The evaluation will employ multiple measures combining the collection of qualitative and quantitative data to assist the FORWARD team to assess the impact of the initiative on participants and the institution. To support the evaluation and to ensure its relevance and responsiveness to key stakeholders, Metis will convene an Evaluation Advisory Committee (EAC) to help inform the evaluation throughout the tenure of the project. Formative evaluation will track the extent to which the process indicators are being met and inform project management about the quality of implementation; identify problems needing immediate attention; and generate recommendations for program improvement. Formative evaluation data will include surveys (college climate for all NDSU staff and programmatic for female STEM staff members), project documentation (e.g., professional development and dissemination, program meetings, agendas, institutional data), focus groups with participating female STEM staff members and NDSU administrators, and individual interviews with program staff. Summative evaluation will examine the extent to which the program is meeting desired outcomes for program participants. Summative evaluation data will be collected through surveys and institutional data. The summative evaluation will use multiple methods and measures and triangulate findings across data sources to increase the reliability and credibility of results. Baseline data will be used to document changes in outcomes.

Instrument development will occur during the first year of the project with revisions occurring each subsequent year as necessary in response to formative evaluation findings. Each data collection instrument will be developed in collaboration with FORWARD staff and will be designed to gather information to address the goals and objectives of the grant. The types of activities will include (see Chart 1):

- **Observations:** Metis will conduct a series of observations of different project activities (e.g., professional development sessions, committee meetings). The number of observations during a site visit that will take place each year of the grant will vary and may include observations of project activities including (but not limited to) program meetings, development activities, or committee activities. Observation protocols will be developed prior to the observations to help guide the observer in efforts to document program activities. The protocols themselves will focus on documenting the observed activities with a focus on the purpose of the activity, the stakeholders present, the quality of the activity, and the nature of the presentation and participation by all groups present. Typically a qualitative document, the observation protocols will allow for documentation of the observed activities and reporting back of the associated findings in a formative manner. The type of information to be gathered and the plans for review for each goal are listed below:
 - Goal 1 Improve Climate: Observations will be used to help assess the general climate on campus and the nature of the climate at the observed activities (e.g., spring conferences). The observations themselves will allow the evaluator an opportunity to observe interactions among staff members as well as the grant-funded activities occurring on campus. Conversations with attendees during these events will further illuminate the evaluator as to the campus climate.
 - Goal 2 Enhance Recruitment: Observations of the spring conference will allow the evaluator to learn more about the recruitment efforts being planned for FORWARD. In addition (as applicable) observations of search committee and/or chair/dean trainings will show the nature of the activities being offered to grant participants.

- Goal 3 Increase Retention: Observations of the spring conference will also allow Metis staff to directly observe the conversations and goal setting focused on retaining women. In addition, (as applicable) observations of networking events and mentoring events will shed light on the efforts of FORAWRD focused on retention, the quality of such events, and how these events seem to be received by attendees.
 - Goal 4 Promote and Advance Women: Observations of the spring conference will allow the evaluator to learn more about the promotion and advancement efforts being planned for FORWARD. In addition, (as applicable) observations of networking events and mentoring events will illuminate efforts of FORAWRD focused on retention, the quality of such events, and how these events seem to be received by attendees.
 - Goal 5 Create Leadership Opportunities: Observations of the spring conference (and, as applicable, mentoring events) will allow Metis to observe leadership and leadership opportunities on campus.
- **Interviews/Focus Groups:** Metis will conduct interviews/focus groups with key stakeholders, including FORWARD program staff, NDSU administrators and STEM faculty participants, in order to elicit respondents' perspectives on how the initiative has impacted on the climate of the university, female STEM faculty recruitment and retention, and the leadership opportunities for women at NDSU. The focus groups will take place during the annual site visit and will include discussions with faculty (both STEM and Non-STEM) with a total of 2 focus groups initially (although this may expand based on project needs in the future). These groups will include 7-10 participants and the discussions will be scheduled for one hour by program staff. The private meetings (in a room without other program staff or university administrators) will be facilitated by Metis staff and will include questions focusing on the nature of the climate for female staff at NDSU as well as issues of retention, recruitment, leadership, tenure, and general comfort with the campus support system for women. Interviews will take place either during the annual site visit or by telephone at a later date (spring of each year) with a sample of NDSU administrators (to be selected in collaboration with program staff) and FORWARD staff. These interviews will typically take approximately 30-45 minutes and will include questions that help to discern the nature of the FORWARD activities at NDSU and the impact on participants as well as the aforementioned areas of retention, recruitment, leadership and support. Listed below is further detail on each type of planned focus group and interview:
 - Female STEM faculty: In the first year a focus group of female STEM faculty members at NDSU will be held during the spring conference visit. Although planned to be a group of female STEM program participants, this group has been redesigned for the first year to have representation from all female STEM faculty. The participants will be invited by FORWARD staff to attend the session and the protocol for this group will focus on their experience within NDSU in the areas of the grant (e.g., climate, recruitment, retention, etc.). Questions may include asking participants to reflect on how they were recruited, what efforts have (or have not) been made to help keep them at NDSU, how they are mentored, and in what ways they are supported in their work at the university.
 - Female non-STEM faculty: Although not a part of the original grant, in the first year a focus group comprised of female non-STEM faculty will also be held during the spring conference visit. Questions similar to those asked of female STEM faculty (see above) will be asked and the answers will be compared among the two groups.
 - FORWARD staff interviews: Conversations with FORWARD staff will take place in the form of face-to-face or telephone interviews in the spring of each program year. These interviews will focus largely on the nature of the activities offered through the grant, the role of each staff member in developing, orchestrating, or running the activities/events, as well as perceptions of FORWARD staff in how they are meeting the goals of the grant. Questions may include asking staff to discuss their individual activities, what the biggest successes and challenges are for the year, how the grant has impacted (in their opinion) the work of recruitment, retention, and promotion at the university. In addition, FORWARD staff may be asked what they feel are the next steps for the grant and ways it may be improved.
 - NDSU Administrator Interviews: Conversations with NDSU administrators (to be selected by FORWARD staff) will also take place in the form of telephone interviews in the spring of each program year. The discussions will be targeted toward learning what efforts the administration is making to recruit and retain women in STEM and non-STEM positions at NDSU as well as what they are doing to support women in their work at the university. In addition, the interview questions will ask administrators to reflect on the FORWARD grant and its successes and challenges in meeting goals. Questions for administrators may include asking them their understanding of the FORWARD grant, their participation in FORWARD activities, what they have done in their department to support FORWARD, and how successful they feel FORWARD has been thus far in each year.

The type of information gathered and the plans for review for each goal are listed below:

- Goal 1 Improve Climate: Focus groups and interviews (listed above) will be used to help determine the success of FORWARD in improving the climate at NDSU. The focus groups with female STEM and non-STEM faculty will allow the evaluator to explore the nature of the climate at the university and the extent to which the perception differs between STEM and non-STEM faculty. The interviews with FORWARD staff and NDSU administrators will provide information as to the nature of the activities offered to improve the climate at the university.
 - Goal 2 Enhance Recruitment: The focus groups with female STEM and non-stem faculty will include participation from members who have recently been recruited and those who were recruited some time ago. This will allow the evaluator to ask questions focused on individual recruitment experiences and allow participants to discuss with one another how these experiences differed, in particular, after FORWARD has been fully implemented. Similarly, the interviews with NDSU administrators will include representation of those on search committees both recently and in the past to allow for information to be gathered on any perceived differences in the process and success of recruitment.
 - Goal 3 Increase Retention: The focus groups with female STEM and non-stem faculty will include participation from members who have been involved with the university for varying amounts of time in order to allow the evaluator to ask questions focused on individual retention experiences and allow participants to discuss with one another how these experiences differed, in particular, after FORWARD has been fully implemented. Similarly, the interviews with NDSU administrators will focus on information related to any perceived differences in the process and success of retention.
 - Goal 4 Promote and Advance Women: The focus groups with female STEM and non-stem faculty will include participation from members who have been involved with the university for varying amounts of time (and in varying levels) in order to allow the evaluator to ask questions focused on individual promotion/advancement experiences and allow participants to discuss with one another how these experiences differed, in particular, after FORWARD has been fully implemented. Similarly, the interviews with NDSU administrators will include representation of those on tenure committees both recently and in the past to allow for information to be gathered on any perceived differences in the process and success of promotion.
 - Goal 5 Create Leadership Opportunities: The focus groups with female STEM and non-stem faculty will include participation from members who have been involved with the university for varying amounts of time (and in varying positions) in order to allow the evaluator to ask questions focused on individual leadership experiences and allow participants to discuss with one another how these experiences differed, in particular, after FORWARD has been fully implemented. Similarly, the interviews with NDSU administrators will include representation of those on tenure committees both recently and in the past to allow for information to be gathered on any perceived differences in the process and success of leadership.
- **Surveys:** Metis will collaborate in the development of surveys that will be completed by participants in the spring of each program year, including an online campus-wide climate survey for all NDSU (administered winter 2008 as a baseline measure), an administrator survey for deans and leads in programs, and a programmatic survey for female STEM faculty participating in the specific programs provided by the grant. The climate survey, drawn from another ADVANCE program, WISELI, was administered in December 2008 and the data will be analyzed in February 2009 to allow for formative feedback to FORWARD staff. This survey was distributed (via a link in an email sent by Metis staff) to all NDSU faculty and completed by 359 staff members. The survey will be readministered annually to all NDSU faculty in the spring of each program year. The administrator survey and program survey for female STEM faculty will be developed in collaboration with FORWARD staff and will include questions focused on the nature of FORWARD activities and their effects on faculty at NDSU related to retention, recruitment, leadership, support as well as perceptions of the grant and its effects on faculty. These surveys will be administered in the spring of each program year and will be developed to take a maximum of 15 minutes to complete for participants, in order to increase participation. In addition, program staff will administer feedback forms to participants at the end of all FORWARD-sponsored program activities in order to allow for both ongoing formative feedback and overall summative feedback as to the satisfaction of participants of the grant-offered activities. The type of information gathered and the plans for review for each goal are listed below:
 - Goal 1 Improve Climate: A campus-wide online survey has been administered (and will continue to be administered) to all faculty at NDSU in order to help determine the success of FORWARD in improving the climate at NDSU and to what extent personal experiences differ by gender and other under-represented groups. The workshop feedback survey will be administered following each climate focused grant activity and include questions such as how satisfied the participants were with the content and presentation format of the event as well as if they feel what they learned would be likely to help them in their work at NDSU.

- Goal 2 Enhance Recruitment: Surveys for both NDSU administrators and grant-participating faculty will be developed and administered in the spring of each program year. The questions on the surveys will be focused specifically on FORWARD grant activities and may include asking respondents which grant-sponsored activities they have participated in, how satisfied they are with grant activities (with a list provided) focused on recruitment (e.g., search committee trainings), and their perceptions on if they believe the activities will/have had any effect on the recruitment process at NDSU. An additional question that may be asked of respondents include if they have served on a recruitment committee. The workshop feedback survey will be administered following each recruitment focused grant activity and include questions such as how satisfied the participants were with the content and presentation format of the even as well as if they feel what they learned would be likely to help them in their work at NDSU.
- Goal 3 Increase Retention: Surveys for both NDSU administrators and grant-participating faculty will be developed and administered in the spring of each program year. The questions on the surveys will be focused specifically on FORWARD grant activities and may include asking respondents which grant-sponsored activities they have participated in, how satisfied they are with grant activities (with a list provided) focused on retention (e.g., mentoring, grants), and their perceptions on if they believe the activities will/have had any effect on retention of staff at NDSU. The workshop feedback survey will be administered following each retention focused grant activity and include questions such as how satisfied the participants were with the content and presentation format of the even as well as if they feel what they learned would be likely to help them in their work at NDSU.
- Goal 4 Promote and Advance Women: Surveys for both NDSU administrators and grant-participating faculty will be developed and administered in the spring of each program year. The questions on the surveys will be focused specifically on FORWARD grant activities and may include asking respondents which grant-sponsored activities they have participated in, how satisfied they are with grant activities (with a list provided) focused on promotion and advancement (e.g., mentoring, grants), and their perceptions on if they believe the activities will/have had any effect on the promotion of staff at NDSU. Additional questions that may be asked of respondents include if they have served on a tenure committee or if they have been a position to participate in a promotion decision. The workshop feedback survey will be administered following each promotion/advancement focused grant activity and include questions such as how satisfied the participants were with the content and presentation format of the even as well as if they feel what they learned would be likely to help them in their work at NDSU.
- Goal 5 Create Leadership Opportunities: Surveys for both NDSU administrators and grant-participating faculty will be developed and administered in the spring of each program year. The questions on the surveys will be focused specifically on FORWARD grant activities and may include asking respondents which grant-sponsored activities they have participated in, how satisfied they are with grant activities (with a list provided) focused on leadership (e.g., mentoring, grants), and their perceptions on if they believe the activities will/have had any effect on the leadership at NDSU. Additional questions that may be asked of respondents include if they have served on a tenure committee, recruitment committee, or if they have been a position to participate in a promotion decision. The workshop feedback survey will be administered following each leadership focused grant activity and include questions such as how satisfied the participants were with the content and presentation format of the even as well as if they feel what they learned would be likely to help them in their work at NDSU.
- **Document Reviews:** Metis will conduct annual document reviews, including professional development and dissemination materials, program meeting minutes, FORWARD committee meeting minutes, the number (sign-in sheets) for all program activities (e.g., trainings, networking meetings) and memoranda among others. In addition, data gathered by FORWARD staff will be analyzed, including data related to the number of female faculty achieving tenure, the number who are being recruited and ultimately achieve a position at NDSU as well as additional data as available. These documents will be used both as an informational tool for the evaluator to understand more about the nature of the activities and as documentation of the activities themselves (to help establish the number activities being offered). The type of information gathered and the plans for review for each goal are listed below:
 - Goal 1 Improve Climate: Documentation will be reviewed related to the activities developed by FORWARD to help improve campus climate (e.g., climate training, climate grants), such as training agendas, activities, and presentations, as well as grant RFPs and awarded proposals.
 - Goal 2 Enhance Recruitment: Documentation will be reviewed focused on the recruitment activities such as search committee training agendas and activities, job postings, job applications, research on recruitment, and the number of FORWARD Scholars (as a possible pipeline indicator).
 - Goal 3 Increase Retention: Documentation will be reviewed for retention in areas such as grant RFPs, applications, awarded proposals, event agenda and number of attendees (e.g., networking events), research on retention, activities related to mentoring of junior and mid-career

- individuals (e.g., sign-up sheets for attendance at mentoring events), and the number of FORWARD scholars (as a possible pipeline indicator and the retention of such scholars).
- Goal 4 Promote and Advance Women: Documentation will be reviewed related to activities such as grant RFPs, applications, awarded proposals, event agenda and number of attendees (e.g., networking events), activities related to mentoring of faculty in all stages of their careers (e.g., sign-up sheets for attendance at mentoring events), and the number of FORWARD scholars (as a possible pipeline indicator and the retention of such scholars).
 - Goal 5 Create Leadership Opportunities: Documentation will be reviewed for leadership opportunities such as grant RFPs, applications, awarded proposals, activities related to mentoring of faculty in all stages of their careers (e.g., sign-up sheets for attendance at mentoring events), and the number of FORWARD scholars (as a possible pipeline indicator and the retention of such scholars).

Quantitative data will be analyzed through a variety of methods, as appropriate, including descriptive statistics such as frequency distributions and means and standard deviations for groups and subgroups, to describe program implementation across participants. Additional categorical data analytic methods may include chi-square tests of independence and analyses for continuous data may include methods such as multiple regression analyses or logistic regressions (e.g., retention analyses, survival analyses) depending upon the availability of institutional research data on faculty within the university (e.g., years teaching, years at the university, number of publications, tenure, promotion, etc.) as well as gender in order to determine if gender matters “above and beyond” these other factors and if all other factors are held equal if gender does or does not contribute to if a faculty member is hired, gets promoted, and/or is tenured. All quantitative data will be imported into SPSS and (as appropriate) will be analyzed and reported using the statistical tool. Qualitative data from interviews, observations and site visits will be content analyzed and emerging response categories will be summarized. An a priori list of codes will be developed to analyze qualitative data and grounded theory principals will also be used to allow for codes that become apparent throughout the analysis process. As appropriate, N-Vivo may be used to organize, analyze, and report qualitative data. Data from both formative (process) and summative (outcome) sources will be triangulated in order to form overall summaries and recommendations. In keeping with the Advance Program Evaluation Toolkit (May, 2006), the Chart 2 provides a detailed evaluation plan with the applicable program goals, objectives, outcomes, involved groups, program elements, assessment of outcomes, sources of information, and timeline.

Goals/Initiatives	Objective	Outcomes	Involved Groups	Program Elements	Assessment of Outcomes	Sources of Information/Evaluation Activities	Timeline
1. Improve Climate.	Improve the climate across the campus and narrow the gap between men's and women's perceptions of the campus climate.	Find no significant difference in the perception of the climate between genders or between under-represented groups and the majority, while improving the overall climate.	<ul style="list-style-type: none"> -All faculty throughout campus -Female STEM faculty -ADVANCE FORWARD Program Staff -NDSU Administrators -Junior and Senior Faculty -Internal and External Advisory Boards -University President 	<ul style="list-style-type: none"> - Gender Climate Training for Faculty - Department Climate Grants - Climate/Equity Grants - Chair/Dean Training - LEAD training - Training Advocates/Allies - Search Committee Training - FORWARD team meets with Native American groups - Peer Mentoring for Senior Faculty - Mentoring Cohorts for Junior Faculty -Course Release Grants - Leadership Development Grants - Leap Research Grants -Networking Events - Remodel space that has been allocated for FORWARD Office - Hire Project Specialist - Convene Internal Advisory Board -Convene External Advisory Board - Internal Dissemination/Publicity - External Dissemination of Project Achievements - Spring Event/Conference - Meetings with University President 	<ul style="list-style-type: none"> -Perceptions of campus climate -number of faculty attending workshops -satisfaction with workshops -number of faculty applying and being awarded grants -number of senior and junior faculty participating in mentoring opportunities -participation in committees, boards, conferences, and other events 	<ul style="list-style-type: none"> -Campus climate survey, disaggregated by gender -Focus group(s) with female faculty -Interview(s) with NDSU administrators -Interview(s) with FORWARD program staff -Survey of FORWARD participants -Survey of NDSU administrators -Workshop feedback forms -Documentation of program activities (including, NSF 12 indicators, agendas, sign-in sheets, and all activity documentation collected by FORWARD staff) -Observations of program activities, including spring conference and (as applicable) trainings, mentoring activities, or other grant-sponsored activities, meeting, or events. 	<ul style="list-style-type: none"> -Administer campus climate survey in winter 2009 (baseline) and annually in the spring (April) thereafter -Conduct focus groups/interviews annually in the spring (March) -Administer FORWARD and administrator survey annually in spring (April/May) -Administer workshop satisfaction forms (ongoing) -Attend spring conference (March) -Collect documentation (ongoing) -Analyze data (spring/summer) -Write annual evaluation report (summer)
2. Enhance Recruitment.	Employ targeted recruiting strategies to recruit women, women of color, and women with disabilities to STEM departments.	Standardize expectations to minimally mirror pipelines from doctoral programs before a search may move forward in order to assure that all pools include a representative	<ul style="list-style-type: none"> -Female STEM faculty -ADVANCE FORWARD Program Staff -NDSU Administrators -Search Committee -FORWARD Scholars 	<ul style="list-style-type: none"> -Search Committee Training - Chair/Dean Training - Hire Faculty Recruitment Assistant - Research on programs to recruit/retain/advance women faculty - Hiring FORWARD Scholars 	<ul style="list-style-type: none"> -number of faculty attending training -satisfaction with workshops -number of applications for STEM positions and the number who are offered and accept positions 	<ul style="list-style-type: none"> -Focus group(s) with female faculty (including representatives who have recently been recruited and those who have been with the university for some time) -Interview(s) with NDSU administrators (including those who have served on search committees both recently and in the past) -Interview(s) with FORWARD program staff involved with recruitment 	<ul style="list-style-type: none"> -Conduct focus groups/interviews annually in the spring (March) -Administer FORWARD and administrator survey annually in spring (April/May) -Administer workshop satisfaction forms (ongoing) -Attend spring conference (March) -Collect documentation (ongoing)

		number of women and women from under-represented groups.				<ul style="list-style-type: none"> activities -Survey of FORWARD participants -Survey of NDSU administrators -Workshop feedback forms -Documentation of program activities (including, NSF 12 indicators, agendas, sign-in sheets, and all recruitment activity documentation collected by FORWARD staff) -Observations of program activities, including spring conference and (as applicable) training activities 	<ul style="list-style-type: none"> -Analyze data (spring/summer) -Write annual evaluation report (summer)
3. Increase Retention.	Retain more women in STEM departments through their probationary period and the promotion/tenure process.	Retain 90% of women through the tenure decision; increase numbers of associate women in STEM disciplines from 8 to 24 by the end of the grant period (tripling present numbers).	<ul style="list-style-type: none"> -Female STEM faculty -ADVANCE FORWARD Program Staff -NDSU Administrators -Junior Faculty 	<ul style="list-style-type: none"> -Mentoring Cohorts for Junior Faculty -Travel Grants -Course Release Grants -Leap Research Grants -Networking Events - Mid-career peer mentoring program 	<ul style="list-style-type: none"> -number of faculty attending workshops -satisfaction with workshops -number of faculty applying and being awarded grants -number of STEM faculty leaving the university each year -number of faculty being awarded tenure each year -number of female STEM associates each year -number of junior faculty participating in 	<ul style="list-style-type: none"> -Focus group(s) with female faculty (including representation from participants who have been with the university for varying amounts of time) -Interview(s) with NDSU administrators -Interview(s) with FORWARD program staff involved with mentoring, networking, or grant activities. -Survey of FORWARD participants -Survey of NDSU administrators -Workshop feedback forms -Documentation of program activities (including, NSF 12 indicators, agendas, sign-in sheets, and all retention 	<ul style="list-style-type: none"> -Conduct focus groups/interviews annually in the spring (March) -Administer FORWARD and administrator survey annually in spring (April/May) -Administer workshop satisfaction forms (ongoing) -Attend spring conference (March) -Collect documentation (ongoing) -Analyze data (spring/summer) -Write annual evaluation report (summer)

					mentoring opportunities -participation in committees, boards, conferences, and other events	activity documentation collected by FORWARD staff) - Observations of program activities, including spring conference and (as applicable) mentoring activities	
4. Promote and Advance Women.	Support women associate professors in the STEM disciplines as they move to full professor, and hire advanced women in STEM fields to build a critical mass of senior women in STEM departments.	Increase number of STEM women full professors from 4 to 10 in the next five years.	-Female STEM faculty -ADVANCE FORWARD Program Staff -NDSU Administrators -Junior Faculty	-Peer Mentoring for Senior Faculty -Mentoring Cohorts for Junior Faculty -Travel Grants -Course Release Grants -Leap Research Grants -Networking Events - Mid-career peer mentoring program	-number of faculty attending workshops -number of STEM women who are full professors -satisfaction with workshops -number of faculty applying and being awarded grants -number of senior and junior faculty participating in mentoring opportunities -participation in committees, boards, conferences, and other events	-Focus group(s) with female faculty (including representation from participants who have been with the university for varying amounts of time and from various levels) -Interview(s) with NDSU administrators (including representation from participants who have served on tenure committees both recently and in the past) -Interview(s) with FORWARD program staff involved with mentoring or grant activities -Survey of FORWARD participants -Survey of NDSU administrators (including those having served on tenure committees both recently and in the past) -Workshop feedback forms -Documentation of program activities (including, NSF 12 indicators, agendas, sign-in sheets, and all promotion/advancement activity documentation collected by FORWARD	-Conduct focus groups/interviews annually in the spring (March) -Administer FORWARD and administrator survey annually in spring (April/May) -Administer workshop satisfaction forms (ongoing) -Attend spring conference (March) -Collect documentation (ongoing) -Analyze data (spring/summer) -Write annual evaluation report (summer)

						staff) -Observations of program activities, including spring conference	
5. Create Leadership Opportunities.	Promote/hire women faculty into academic leadership positions.	Promote or hire women in at least 2 more dean positions (for a total of 3 women Deans) over the next 5 years; increase women chairs/heads in the STEM disciplines to 5 of 28.	-Female STEM faculty -ADVANCE FORWARD Program Staff -NDSU Administrators -Junior and Senior Faculty	-Peer Mentoring for Senior Faculty -Mentoring Cohorts for Junior Faculty -Leadership Development Grants	-number of faculty attending workshops -number of women in dean and chair/head positions -satisfaction with workshops -number of faculty applying and being awarded grants -number of junior faculty participating in mentoring opportunities -participation in committees, boards, conferences, and other events	-Focus group(s) with female faculty (including representation from participants who have been with the university for varying amounts of time and from various levels) -Interview(s) with NDSU administrators (including representation from participants who have served on tenure committees both recently and in the past) -Interview(s) with FORWARD program staff -Survey of FORWARD participants -Survey of NDSU administrators -workshop feedback forms -Documentation of program activities (including, NSF 12 indicators, agendas, sign-in sheets, and all leadership activity documentation collected by FORWARD staff) -Observations of program activities, including spring conference	-Conduct focus groups/interviews annually in the spring (March) -Administer FORWARD and administrator survey annually in spring (April/May) -Administer workshop satisfaction forms (ongoing) -Attend spring conference (March) -Collect documentation (ongoing) -Analyze data (spring/summer) -Write annual evaluation report (summer)

Chart 2 Evaluation Plan¹

¹ Developed based on the plan provided in the Advance Program Evaluation Toolkit (May, 2006).