YEAR 2 EXTERNAL EVALUATION:

UNH UNBIASED: LEADERSHIP DEVELOPMENT AND POLICY CHANGE TO PROMOTE INSTITUTIONAL TRANSFORMATION

NSF GRANT NO. 1209189

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1. Executive Summary

The University of New Hampshire is completing its second year of an NSF-funded ADVANCE-IT grant for their proposal, “UNH Unbiased: Leadership Development and Policy Change to Promote Institutional Transformation.” The overall mission of the project is to initiate sustainable institutional transformation to increase the number, retention, and success of STEM women faculty by empowering them to succeed. The external evaluation of the grant’s second year of funding, covering September 2013 to October 2014, employed a mixture of quantitative and qualitative methods and data. This report presents outcomes on the five transformational goals of UNH Unbiased, cited below, and on the sixth goal to conduct a longitudinal field experiment to investigate the impact of department chair professional development on department level climate at UNH (social science research study). Forward movement on these goals has been steady and multi-dimensional:

Goal #1 -- Increase the representation of STEM faculty women at all ranks through changes in recruitment and retention policies and practice

Initiative 1.1. Three sessions of the GEAR-UP Search Committee Training were held in Year 2, each incorporating improvements gleaned from session feedback. Findings indicate the vast majority of participants learned how microaggressions, implicit biases, and/or gender impact the evaluation of candidates; they also learned proactive ways to mitigate those effects. There is evidence that the training contributed to changes in search committee behavior by heightening awareness of the need to prevent implicit biases from affecting the evaluation of candidates. Data for the gender composition of applicant pools, finalists, offers, and hires revealed an increase in women faculty at each stage over the baseline period in both STEM and SBS. The climate survey data will be used to assess impact of the search committee training over time. Working with stakeholders to require training for those serving on search committees would strengthen this initiative. Discussing the sustainability and institutionalization of GEAR UP training is also appropriate at this juncture.

Initiative 1.2. The Visiting STEM Women Scholars Program awarded its first recipient in April 2014, and issued a call for proposals in the fall for the Spring 2015 award. The Pathways to Professorship Program has become the institutionalization of the Women Faculty Development initiative. The Career Progression (P&T) subcommittee analyzed promotion and tenure documents across UNH, developed a rubric for these documents, and summarized best practices. Implicit bias training for Promotion and Tenure Committees should be developed, along with a hiring plan for STEM women at the senior faculty level. Variation in faculty review processes across colleges should be addressed as part of the alignment of tenure and promotion policies. The needs of STEM/SBS women Associate Professors who are ineligible to participate in the Pathways to Professorship program also merits further attention.
**Goal #2**—*Improve support and department level climate for STEM faculty women through increased department chair professional development and assessments, and formal mentoring policies and practices*

**Initiative 2.1.** The REAL Department Chair Training was designed to improve the support and department level climate for STEM/SBS faculty women, and as the focus of the social science research project, provides an opportunity to test the training’s impact on the representation of and departmental-level climate for women faculty. In Year 2, leaders from CEPS and CHHS comprised the first cohort of chairs to receive the intervention “treatment,” e.g., the REAL Chair Professional Development. Of the three training activities (Applied Theater Workshop, Summer Booster material, Discussion of Case Studies), the discussion of case studies was identified as most useful in facilitating a positive climate for women faculty. Most participants intend to apply what they learned from the trainings and to help negotiate higher salaries for incoming faculty. The role of the deans in encouraging chairs to participate was instrumental and should be cultivated.

**Initiative 2.2.** The Career Success subcommittee reviewed findings from the Fall 2013 climate study pertaining to mentoring, reviewed mentoring programs at other ADVANCE institutions, and gathered information about cohort mentoring opportunities at UNH. They intend to focus on mentoring for pre-tenure faculty. As they develop a mentor training plan, they should revisit the mentoring needs of Associate Professors ineligible to participate in the Pathways to Professorship program.

**Goal #3**—*Conduct a wage equity analysis and recommend policy changes*

An ADVANCE Salary Equity Team (SET) was established in Year 2 with representatives from Human Resources, the AAUP, Office of the Provost, and UNH faculty. The team decided to adopt the procedure detailed in AAUP’s “Paychecks” manual. The completed salary equity analysis is expected in the next few months.

**Goal #4**—*Develop more flexible workplace policies that support career advancement for STEM faculty women*

The Career Life Balance subcommittee is working to have UNH provide a semester of paid leave to all faculty experiencing a qualifying event, and expanding the qualifier beyond childbirth and adoption. Childcare resources are now available on the HR and ADVANCE websites. Going forward, the climate survey data on work-life challenges will provide valuable benchmarks to assess impacts. Education of chairs and deans on family leave policies would increase fair and consistent application of the policies across departments. Policy information should be thoroughly disseminated to prospective and current faculty through new faculty orientations and faculty search committees. The subcommittee should also examine other key work-life policies to ensure equity and consistency with best practices at other universities.
Goal #5 -- Create and maintain campus-wide awareness of the issues addressed and policy changes made under the IT initiative

Two reports presenting findings from the Fall 2013 Climate Study were released, discussed at a Faculty Forum, and posted on the redesigned ADVANCE website. Web analytics should be utilized to gain insight on how often the ADVANCE website is visited and this material is accessed.

Goal #6: Social Science Research Study -- Conduct a longitudinal field experiment to assess Goal #2 by investigating the impact of department chair professional development on department level climate at UNH

The Research Committee is conducting the social science study to investigate the impact of department chair training on the representation of and departmental-level climate for women faculty at UNH (see Goal #2 above). In addition to effectively coordinating with the GEAR UP Committee, they are conducting and analyzing the annual climate survey data and sharing findings with the other committees (and the external evaluator) to inform the development of initiatives.

Recommendations

The following recommendations (discussed in detail in the report) are offered as next steps for further strengthening project activities and maximizing effectiveness:

- Explore the feasibility of supplementing the Pathways to Professorship Program with additional workshops (outside of Pathways) specifically for STEM/SBS women faculty at the rank of Associate Professor
- Help deans to continue being strong advocates for ADVANCE, especially encouraging participation in the REAL Chair Professional Development workshops, a key program activity and focus of the social science research
- Encourage all deans to hold chairs and search committees accountable for the composition of the committee and the short lists of candidates
- Adhere to an aggressive timeline for program elements not fully launched so they are in place prior to the NSF 3rd Year Site Visit
- Initiate discussions regarding the potential sustainability of key program activities in preparation for the 3rd Year NSF Site Visit

The UNH-Unbiased Team has built momentum in Year 2 through conscientious development of committees, effective communications, and proactive efforts by stakeholders. With this momentum, the team should adhere to an aggressive implementation timeline so that program elements yet to be launched will be in place prior to the NSF 3rd Year Site Visit.
2. UNH Unbiased Overview

The University of New Hampshire is completing its second year of an NSF-funded ADVANCE-IT grant for their proposal, “UNH Unbiased: Leadership Development and Policy Change to Promote Institutional Transformation.” The overall mission of the project is to initiate sustainable institutional transformation to increase the number, retention, and success of primarily STEM\(^1\) women faculty by empowering them to succeed and establishing quick-action ability for retention. Working within the Office of the Provost, the project seeks to transform the university by engaging faculty and institutional leadership to improve the university climate through increased fairness, transparency, and clarity of recruitment, retention, and promotion and tenure policies and practices.

The program is conceptually guided by the congruence model that views organizations as an open system, examining context, people, processes, culture, and structure to understand undesirable organizational outcomes. The grant builds on UNH’s strategic plan and other university-wide initiatives focusing on inclusive excellence, promotion and tenure, curricular change, advancing individual scholarship through external funding, and advancing interdisciplinary research teams.

UNH Unbiased has six transformation goals:

**Goal #1:** Increase the representation of STEM faculty women at all ranks through changes in recruitment and retention policies and practice

*Initiative 1.1. Search Committee Training*

*Initiative 1.2. Increase the number of female faculty at the senior level through both promotion of existing mid-level faculty and targeting new hires at the senior level, as possible*

**Goal #2:** Improve support and department level climate for STEM faculty women through increased department chair professional development and assessments, and formal mentoring policies and practices

*Initiative 2.1. Chair Professional Development*

*Initiative 2.2. Establish Formal Mentoring Policy*

**Goal #3:** Conduct a wage equity analysis and recommend any policy changes that might be indicated

**Goal #4:** Develop more flexible workplace policies that support career advancement for STEM faculty women

**Goal #5:** Create and maintain campus-wide awareness of the issues addressed and policy changes made under the IT initiative

\(^1\) In the project goals, the term “STEM” is meant to include “SBS” as well.
**Goal #6:** Conduct a longitudinal field experiment to assess Goal #2 by investigating the impact of department chair professional development on department level climate at UNH.

A quasi-experimental design will test the following hypotheses:

**Hypothesis 1:** There will be a significant gender difference in baseline measures of perceived departmental climate and degree of influence such that women STEM faculty will perceive a more negative climate and less ability to influence departmental decisions than men STEM faculty.

**Hypothesis 2:** Baseline institutional data will reveal significantly higher male-female ratios in every college (except HHS), at senior ranks, and compared to national averages.

**Hypothesis 3:** There will be no significant gender difference in faculty's perceived departmental level climate and degree of influence subsequent to the implementation of department chair professional development programs.

**Hypothesis 4:** There will be a significant reduction in male/female ratios in the STEM disciplines at senior ranks subsequent to the implementation of department chair professional development programs.

### 3. Evaluation Objectives and Methods

#### 3.1 Evaluation Period and Objectives

This evaluation covers the period between September 2013 and October 2014. This time period covers the grant's second year of funding.

Evaluation objectives for this annual report are primarily formative and include:

- Describing implementation activities, successes and challenges
- Monitoring the status of implementation progress toward program goals
- Providing formative feedback to facilitate project refinements
- Enhancing communication among the Leadership Team and other stakeholders
- Establishing baseline measures upon which the impact of program initiatives can be measured

#### 3.2 Evaluation Methods and Data

The Year 2 evaluation incorporates both quantitative and qualitative data, derived from the following sources:
**Interviews and Focus Groups:** Dr. Chang conducted site visits April 22 and September 29-30, 2014, to conduct interviews and focus groups with stakeholders. Additional interviews were conducted by phone for those who were not scheduled during the two site visit dates. A total of 45 people were interviewed, including the President, Provost (also the PI), Co-PIs, Program Coordinator, the GEAR-UP Committee, Research and Evaluation Committee, Chair Professional Development Committee, Faculty Career Advancement Subcommittees (Career Success, Career Progression, and Career-Life Balance), Deans, Department Chairs, Internal Steering Committee, participants in ADVANCE programming, and STEM/SBS male and female faculty.

**Observation:** During Year 2, Dr. Chang observed an Internal Advisory Committee Meeting (November 19, 2013), GEAR-UP Workshop (December 5, 2013), External Advisory Board Meeting (April 22, 2014), and a Leadership Retreat (June 16, 2014).

**Applicant Pool, Finalists, Offers Made, and Hire Data:** Data on the sex composition of applicant pools, finalists, offers made, and hires for faculty searches from 2006-2014 were provided by the UNH Affirmative Action and Equity Office.

**Climate Survey Data:** Findings from the UNH Fall 2013 Climate Survey were provided to the external evaluator by the Research Team.

**Institutional Data:** Department-level data on STEM/SBS faculty composition (such as the number of faculty by rank and sex) and other ADVANCE Indicators Toolkit data were provided by the ADVANCE team.

**Program Documentation:** Records of participation (attendance at events, etc.) were kept by the UNH ADVANCE team and provided to the external evaluator.

### 4. Findings

**4.1 Goal 1: Increase the representation of STEM faculty women at all ranks through changes in recruitment and retention policies and practices**

The first program goal contains two initiatives:

- **Initiative 1.1. Search Committee Training**
- **Initiative 1.2. Increase the number of female faculty at the senior level through both promotion of existing mid-level faculty and targeting new hires at the senior level, as possible**
4.1.1 Initiative 1.1: Search Committee Training

The GEAR-UP (Gender Equity and Recruitment of Underrepresented People) Committee was charged with the following:

1. Develop a UNH faculty search process that is aimed at increasing the representation of women and underrepresented minorities at UNH and particularly in the STEM disciplines;
2. Develop a professional development program for faculty search committee members and an implementation schedule;
3. Develop a policy that requires all members of faculty search committees to attend the seminar as a condition of search committee membership

GEAR-UP held training on three dates: December 5, 2013 (2 trainings), April 29, 2014, and October 7, 2014. The trainings use applied theater to depict a faculty search process. The goals were to:

- Assist workshop participants in recognizing unconscious biases
- Assist participants in understanding that microaggressions are the results of putting these biases into action

The desired learning outcomes for GEAR-UP participants include:

- Increase participants’ ability to recognize biases in self and others
- Understand how biases operate and their negative impact
- Assist participants in developing strategies to eliminate such biases and improve search committee processes
- Increase numbers of women and underrepresented faculty in STEM and more widely
- Report successes from which others can learn

The Committee has also developed resources for search committees that is distributed at the trainings and through the UNH ADVANCE website.

GEAR UP workshop participants were drawn from across UNH, although most were from the College of Engineering and Physical Sciences (CEPS), College of Liberal Arts (COLA), and Other (Non-STEM/SBS) colleges or Administrative Units (Table 1). Tenured faculty (Associate Professors and Professors) and Administrators were most likely to participate. While the majority of participants at the first two sessions were men, at the October 2014 session, women comprised a larger percent of attendees.
Table 1. Characteristics of GEAR UP Workshop Participants

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>College</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPS</td>
<td>36%</td>
<td>28%</td>
<td>14%</td>
</tr>
<tr>
<td>CHHS</td>
<td>2%</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>COLA (Including Carsey Institute)</td>
<td>11%</td>
<td>17%</td>
<td>26%</td>
</tr>
<tr>
<td>COLSA</td>
<td>15%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>EOS</td>
<td>4%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Paul</td>
<td>15%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Other (Library, UNHM, Provost’s Office, etc.)</td>
<td>17%</td>
<td>24%</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>9%</td>
<td>17%</td>
<td>9%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>25%</td>
<td>34%</td>
<td>33%</td>
</tr>
<tr>
<td>Professor</td>
<td>36%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Non-Tenure Track (Lecturer, Research Fac., etc.)</td>
<td>5%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>Non-Faculty (Administrators, etc.)</td>
<td>26%</td>
<td>28%</td>
<td>31%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>43%</td>
<td>38%</td>
<td>60%</td>
</tr>
<tr>
<td>Male</td>
<td>57%</td>
<td>62%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Totals may not equal 100 due to rounding.

Evidence of Impact-Evaluation Forms:
Workshop goals included increasing participants’ understanding of how gender impacts the evaluation of candidates and how microaggressions and implicit biases impact the evaluation of candidates. As shown in Figures 1 and 2, almost participants at the three workshops agreed or strongly agreed that their understanding of these issues increased. Across all three sessions, participants were more likely to strongly agree that their understanding of how microaggressions and/or implicit biases impact candidate evaluation increased than their understanding of how gender impacts candidate evaluation.

2 The total for the December 2013 workshop includes both the afternoon and the evening sessions combined.
While the first set of evaluation questions addressed whether their understanding increased, the next set of evaluation questions addressed whether they learned ways to (a) reduce gender biases in the evaluation of candidates, (b) eliminate or reduce the impact of microaggressions and/or implicit biases in the evaluation of candidates, and (c) create or support group discussion in which everyone is able to contribute equally. As shown in Figures 3-5, the majority of participants “agreed” or “strongly agreed” with the learning statements. The workshops were more effective, however, in increasing understanding of the issues (Figures 1-2) than in providing participants with ways to create a more equitable process (Figures 3-5).
Figure 3: "I learned new ways to reduce gender biases that affect the evaluation of candidates"

![Graph showing data distribution for December 2013 (N=76; Mean=2.1), April 2014 (N=18; Mean=1.8), and October 2014 (N=47; Mean=2.11).]

Figure 4: "I learned new ways to eliminate or reduce the impact of microaggressions and/or implicit biases in the evaluation of candidates"

![Graph showing data distribution for December 2013 (N=76; Mean=2.2), April 2014 (N=18; Mean=1.8), and October 2014 (N=46; Mean=2.02).]

Figure 5: "I learned ways to create or support group discussions in which everyone is able to contribute equally"

![Graph showing data distribution for December 2013 (N=76; Mean=1.8), April 2014 (N=18; Mean=1.8), and October 2014 (N=45; Mean=2.04).]
**Overall Satisfaction:**
Feedback from workshops was extremely positive. The vast majority of participants in each session would recommend the workshop to colleagues (Figure 6). The positive feedback was echoed in the open-ended responses, for example:

“Great workshop, dynamic actors, wonderful opportunity.”

“I was somewhat reluctant/skeptical going into this, but now I appreciate the opportunity to have been a participant.”

“This was EXCELLENT and WELL worth my time!!

“Bravo!”

![Figure 6: "I would recommend this workshop to my colleagues"

Across sessions, suggestions for improvement centered around the following themes: characters should be less stereotypical, more time is needed for discussion (especially in small groups), and additional tools to fix the problems were requested (although this response became much less common in the second and third workshops, most likely as a result of increased attention to this feedback in prior workshops). In the third session, many also felt the photograph activity was less useful.

**Evidence of Impact-Interviews:**
To help gauge the longer-term impact of the workshop after the search committee process had completed, Dr. Chang conducted interviews in April 2014 with seven participants from the December workshops and conducted additional interviews in September 2014 as part of the annual site visit.

When asked if they did anything differently on the search committee as a result of attending the workshop (or if they thought this search process was different from
searches pre-ADVANCE because of the information at the workshop), most people interviewed reported they thought there was a difference:

“Being explicit about the criteria for evaluation is important. Because of going through the training, there was extra attention to that. Listing criteria for evaluation and an explicit rationale for why one candidate is chosen.”

“I think people were more aware [than in prior searches]. The committee openly discussed biases and the importance for the university of addressing them. Everyone had a heightened awareness.”

“As a result of [the workshop], I felt empowered. The take-home for me was not to let people intimidate you as they push their agenda....You have a responsibility to step in when you see it and you have to call it.”

“Let’s evaluate based on what was submitted— we kept going back to that. It’s not fair to bring in information and knowledge from other sources such as meeting people at conferences.”

“Faculty had not...in the past been empowered to understand the seriousness of unconscious biases but now they are empowered. I have had a number of colleagues tell me that they had their first meeting as a search committee before the GEAR UP and they said when they came back and had their second meeting, everyone behaved differently. There was more questioning of CVs they were looking at and so on.”

Yet while participants reported the workshop was valuable, some found it hard to pinpoint a specific change because they believe their department had already been attentive to creating an equitable search process:

“Everybody talked about it [trying to increase the number of females to invite for interviews]. We definitely discussed it and made it a point. Through the committee conversation, it was clear that at least some went back and looked [at the candidate pool] to make sure there wasn’t something they were missing. Trying to bring in more female candidates is something we have been conscious of. I felt [the workshop] helped me, but I don’t know if it had an ultimate effect on our search process; we would have gone back to look for more females in the pool. It was something we have been conscious of.”

“My department is very fair; maybe people had it in the back of their minds... I haven’t seen any biases due to gender, but the workshop helped—its not to say that the workshop was not effective.”

Those interviewed thought the workshop should be mandatory for faculty serving on search committees. One interviewee suggested the workshop be mandatory for chairs as well to ensure an equitable process:

“After the search committee, the department takes on the role of discussion and the chair takes on the role of facilitator and people were more free to state preferences without backing it up and I could see coalitions building
and people advocating.... Chairs should attend the workshops as well; there is a high disconnect between the search committee and the department meeting where things are really decided and there is the potential for things to go awry."

Many interviewed noted the commitment of Deans and the Provost for the search committee training and noted the Provost has asked that members of search committees for Dean positions attend the training as well. Some mentioned the particular importance of search committee composition and training for the Dean searches since three Dean searches will occur this year and there are currently no women Deans.

A couple of faculty members mentioned that search committees need to consider dynamics such as how gender and rank intersect when forming search committees. If the only woman on a committee is untenured and the rest of the committee consists of tenured male faculty, her voice may not be heard.

Evidence of Impact-Year 2 Applicant Pool and Hiring Data:
To help measure the impact of the search committee training, the Affirmative Action and Equity Office provided data on the percent of women in the applicant pool, finalists, made offers, and hired for faculty positions 2006-2014.3 The average percent women for tenure-track positions during the 2006-2013 time period will be used as the baseline from which to measure the impact of the search committee. The 2013-14 data correspond to the first year that ADVANCE conducted training for search committees. As shown in Figure 7, the average percent of women at each stage (applicant pool, finalists, offers made, hired) of the process increased over the baseline period in STEM and SBS. In STEM, the largest difference between the baseline data and the Year 2 data is in the average percent of hires who are women. In the baseline period, the average percent of STEM hires who were women was 30% whereas the corresponding percent for 2013-14 (the first year of search committee training) was 44%. In SBS, a dramatic increase in the percent of women made offers and hired occurred between the baseline period and 2013-14. The percent of women made offers in SBS increased from 39% to 71% and the percent hired increased from 43% to 71%.

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3 Data reported here excludes searches for which no applicant pool data was available. In some cases, a small percentage of the applicants did not provide their gender. The percentage of women is calculated here only for those applicants whose gender is known (i.e., those with unknown gender are excluded from the count of total applicants).
Collection of Baseline Data-Climate Survey:
Questions in the annual climate survey address practices of search committees. These data can be used to assess impact of changes in search committee practices over the course of the ADVANCE grant. Baseline data from the Fall 2013 climate survey indicate STEM tenure-track faculty are more likely than tenure-track faculty in SBS and in UNH as a whole to agree that their departments actively recruit underrepresented faculty members (Figure 8). (Note that response categories for this series of questions were: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree.)

However, male STEM faculty are more likely than female STEM faculty to agree that their departments actively recruit underrepresented faculty members (Figure 9).
The climate survey also asked a series of questions of faculty who had served on a search committee (Figure 10). Baseline data from the 2013 climate survey indicate that across UNH, faculty are likely to agree that “evaluation criteria was applied consistently across applicants” and that “the department and/or search committee deliberately engaged in strategies to enhance gender diversity in the applicant pool.” Faculty, in particular STEM faculty, were least likely to report that “committee members were made aware of unintentional biases that can affect everyone’s evaluation of applicants.” However, STEM faculty were more likely to report that “increasing gender diversity in my department was a priority of the committee.”
Gender differences in responses to the above questions are presented in Figures 11-15. While male faculty were generally more likely to believe the process was equitable, gender differences were statistically significant in STEM or SBS in only a couple of instances: (a) female STEM faculty were less likely to agree that evaluation criteria was applied consistently (Figure 12) and (b) female faculty in SBS were less likely to agree that increasing gender diversity was a priority of the committee (Figure 14).

Figure 11. "The department/search committee deliberately engaged in strategies to enhance gender diversity in the applicant pool"

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Significantly higher to the other gender (p&lt;.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>3.17</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>STEM</td>
<td>3.18</td>
<td>2.89</td>
<td></td>
</tr>
<tr>
<td>SBS</td>
<td>3.33</td>
<td>2.89</td>
<td></td>
</tr>
</tbody>
</table>

Figure 12. "Evaluation criteria was applied consistently across applicants"

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Significantly higher to the other gender (p&lt;.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>3.43</td>
<td>3.29</td>
<td></td>
</tr>
<tr>
<td>STEM</td>
<td>3.46</td>
<td>3.16</td>
<td></td>
</tr>
<tr>
<td>SBS</td>
<td>3.46</td>
<td>3.32</td>
<td></td>
</tr>
</tbody>
</table>
Figure 13. "Committee members were made aware of unintentional biases that can affect everyone’s evaluation of applicants"

![Graph showing mean ratings for all, STEM, and SBS categories by gender. The graph indicates significant differences (* p<.1) between male and female responses.]

Figure 14. "Increasing gender diversity in my department was a priority of the committee"

![Graph showing mean ratings for all, STEM, and SBS categories by gender. The graph indicates significant differences (* p<.1) between male and female responses.]

Figure 15. "Discussions were dominated by one or two committee members"

![Graph showing mean ratings for all, STEM, and SBS categories by gender. The graph indicates significant differences (* p<.1) between male and female responses.]

UNH Unbiased Year 2 External Evaluation
Data from the Fall 2014 climate survey (and subsequent annual surveys) will be used to assess impact of the search committee trainings in comparison to the baseline findings presented above.

4.1.1.1 Initiative 1.1 Summary and Recommendations

Three sessions of the GEAR-UP Search Committee Training have been run to date. The team has used formative feedback from the sessions to refine and improve the training, for example: increasing attention paid to discussing best practices and how to put the information to use, providing additional time for discussion, and shortening the sessions by eliminating meals. Evaluation forms filled out at the trainings indicate almost all participants agreed that their understanding of microaggressions, implicit biases, and/or gender impacts the evaluation of candidates increased. The vast majority also agreed that they learned ways to act on the information they learned. Interviews with participants after they completed the search process suggest that the training did help to change the behavior of the search committee, particularly with respect to being more explicit about the evaluation criteria and a heightened awareness about preventing implicit biases from affecting the evaluation of candidates.

Data for the sex composition of applicant pools, finalists, offers, and hires reveal the average percent of women at each stage has increased over the baseline period in both STEM and SBS, especially with respect to the percent of women hired in STEM and both the percent of women made offers and hired in SBS. Baseline data from the climate survey indicate some differences with respect to perceptions of recruitment and search committee evaluation processes, with some gender differences in perceptions. The climate survey data will be used to help assess impact of the search committee training over time.

Recommendations:

- Work with stakeholders to require participation in search committee training for those serving on search committees (and possibly chairs of departments conducting searches), given the context of a unified faculty
- In discussing best practices for composition of search committees, be sure to address how gender and rank may intersect to affect voice and participation (for example, if the only woman on a committee is a lecturer or untenured faculty member and all other male committee members are tenured, her voice may not be heard)
- Initiate discussion regarding the potential sustainability and institutionalization of the GEAR UP training. How will training sessions be paid for after the ADVANCE grant ends? Under which office will the trainings be housed post-ADVANCE?
- The list of best practices for the composition of search committees should be distributed to chairs and deans prior to when the search committee is formed to help them hold committees accountable
4.1.2 Initiative 1.2: Increase the number of female faculty at the senior level through both promotion of existing mid-level faculty and targeting new hires at the senior level, as possible

During Year 2, the following program activities addressed Initiative 1.2:
- Visiting STEM Women Scholars Program
- Women Faculty Development
- Promotion and Tenure Policy Alignment

4.1.2.1 Visiting STEM Women Scholars Program

The ADVANCE Visiting STEM Women Scholars Program was launched in Year 2. The program supports bringing senior women faculty in STEM disciplines at other institutions to UNH to build research collaborations. A call for applications was issued in Spring 2014 and the first award was made to bring Dr. Natacha Thomas (Associate Professor of Civil and Environmental Engineering at the University of Rhode Island) to campus. She will work with two STEM women (one Associate Professor and one Professor) in the Department of Civil Engineering and will give a talk to the broader UNH community. At the completion of the award period for the first STEM Women Scholars grant, interviews will be conducted by the external evaluator to address impact. A new call for proposals is scheduled to go out in Fall 2014 for a Spring 2015 award.

4.1.2.2 Women Faculty Development

The Career Success subcommittee of the ADVANCE Faculty Career Advancement Committee investigated opportunities to build on the ADVANCing Your Career at UNH and Beyond initiative from UNH’s ADVANCE-PAID grant, which was targeted primarily at Associate Professors in STEM/SBS and addressed setting goals, developing negotiation skills, navigating academia, and networking.

The Career Success subcommittee engaged in discussions with the Office of the Senior Vice Provost for Engagement and Academic Outreach regarding their development of the Pathways to Professorship program to be launched Fall 2014. This program will be the newest of several innovative faculty development programs offered by the Office of the Senior Vice Provost for Engagement and Academic Outreach and will be open to faculty who were awarded tenure and promoted to Associate Professor between 2009 and 2013. The program seeks to provide participants with strategies to enhance the success of their case for promotion to Professor.

Given the launching of the Pathways to Professorship program, the charge of the Career Success subcommittee was reported as likely being focused on mentoring for pre-tenure faculty (see section 4.2.2).
4.1.2.3 Promotion and Tenure Policy Alignment

The Career Progression (P&T) subcommittee of the ADVANCE Faculty Career Advancement Committee has collected promotion and tenure documents from 11 departments. They developed a rubric for what should be in promotion and tenure documents and have summarized best practices for both pre-tenure and post-tenure reviews. They are working with Dr. Shea (chair of the ad hoc committee of the Faculty Senate charged with evaluating the transparency and fairness of promotion and tenure policies across the university) to craft a document with recommendations to take to the Faculty Senate. Any changes must be made through the Faculty Senate.

The Career Progression subcommittee will be meeting with the Research Faculty Council as well to craft recommendations for research faculty promotion, which also varies quite a bit by department.

The Career Progression subcommittee will also recommend training for P & T committees.

Baseline Data: Hires, Tenure and Promotion:
ADVANCE seeks to align the tenure and promotion policies for all ranks, but is especially seeking to increase the number of faculty at the senior level through both promotion of existing mid-level faculty and targeting new hires at the senior level where possible. As shown in Figures 16 and 17, no new hires were made at the senior level (Professor) in STEM or SBS during the first year of ADVANCE (new hire data for ADVANCE Year 2 (2013-14) will be included in the next Toolkit data report).
Although no new hires were made at the Professor level in Year 1 of ADVANCE, two women were promoted from Associate Professor to Professor (both were in STEM; see Figure 18). The program initiatives designed to facilitate the promotion to Professor by the ADVANCE Program, however, were still being designed in Year 1 and so cannot be directly credited with helping to foster this impact. Nevertheless, in interviews, some stakeholders thought that UNH’s previous ADVANCE-PAID award helped to encourage the promotion of women to Professor.

The increase in two women Professors in STEM from 10 to 12 also increased the percent women at the Professor rank from 10% to 12% (Table 2). SBS lost one woman Professor in Year 1. In both years, the percent tenure/tenure-track women

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4 In the Pre-ADVANCE Year of 2011-12, the woman denied promotion from Associate Professor to Professor was in SBS.
across all ranks combined remained stable at 21% in STEM and increases slightly from 36% to 38% in SBS (and the total number of women remained the same).

### Table 2. Number and Percent Women Tenure-Track Faculty in STEM and SBS.

<table>
<thead>
<tr>
<th></th>
<th>Number of Women</th>
<th>Percent Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asst.</td>
<td>Assoc.</td>
</tr>
<tr>
<td>STEM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ADVANCE (2011-12)</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>ADVANCE Year 1 (2012-13)</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>SBS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ADVANCE (2011-12)</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>ADVANCE Year 1 (2012-13)</td>
<td>7</td>
<td>16</td>
</tr>
</tbody>
</table>

### 4.1.2.4 Initiative 1.2 Summary and Recommendations

Three program activities address the second initiative of Goal 1: Visiting STEM Women Scholars Program, Women Faculty Development, and Promotion and Tenure Policy Alignment. Progress on all three activities was evident in Year 2. The first award for the Visiting STEM Women Scholars Program was made in Spring 2014 and a new call for proposals was issued in Fall 2014. Building on the ADVANCing Your Career series from the ADVANCE-PAID grant was the original focus of the proposed Women Faculty Development activity. The Pathways to Professorship Program offered by the Office of the Senior Vice Provost for Engagement and Academic Outreach is considered to be the institutionalization of this initiative at UNH. The Career Progression (P&T) subcommittee has analyzed promotion and tenure documents across UNH and developed a rubric for what should be in promotion and tenure documents and summarized best practices. They are working with the Faculty Senate to suggest changes.

Baseline data on hires, tenure, and promotion reveal an increase in the number of STEM women at the rank of Professor, from 10 in the year prior to the ADVANCE award to 12 in the first year of ADVANCE (due to promotion). In contrast, SBS lost one woman Professor in the first year of ADVANCE. However, these changes in Year 1 of ADVANCE occurred prior to the development of ADVANCE-IT activities designed to increase the number of female faculty at the senior level.

Recommendations:
- Implicit bias training for P&T Committees should be developed
- Faculty mentioned much variation across colleges and departments in terms of review, with some faculty receiving regular reviews on time while others do not. Be sure to address alignment of faculty reviews as part of the alignment of tenure and promotion policies.
- Discuss ways that ADVANCE can offer additional material specific to the challenges experienced by women STEM/SBS faculty, that is outside the scope the Pathways to Professorship program
• Discuss how the needs of women Associate Professors who are not eligible to participate in Pathways to Professorship can be addressed. At least half of STEM women Associate Professors are likely to be past the cutoff for participation in Pathways to Professorship (per Toolkit data on years in rank at the Associate Professor level).

4.2 Goal 2: Improve support and department level climate for STEM faculty women through increased department chair professional development and assessments, and formal mentoring policies and practices

Goal #2 has two initiatives:

Initiative 2.1. Develop and implement a leadership professional development program for chairs. Implement a policy that requires this training of all chairs and emerging future leaders at UNH.

Initiative 2.2. The ADVANCE Program will work with the Office of the Vice Provost for Faculty Development and Inclusive Excellence and the deans and directors to establish a formalized mentoring program and policy.

4.2.1 Initiative 2.1: Chair Professional Development

The Chair Professional Development Committee launched REAL (Reaching Excellence in Academic Leadership) in Spring 2014. The objectives of the REAL Chair and Directors Professional Development training are:

1. Increase department chairs’ awareness of implicit assumptions and unconscious biases and their effect on decision making and behavior
2. Guide them in an exploration of their own implicit assumptions to see how these may be impacting departmental climate issues and hiring and promotion decisions
3. Help them to develop the skills and tools needed to overcome their implicit biases or assumptions

The training is comprised of three components:

1. Seminar 1: Interactive theater-based training workshop offered in the Spring semester
2. Booster Sessions: Readings, video clips and Implicit Association Test during the summer months
3. Seminar 2: Workshop for discussing case studies in the Fall semester

The REAL Department Chair Training is also at the heart of the social science research project, designed to test the impact of the training on the representation of and departmental-level climate for women faculty at UNH. The REAL Committee has been working closely with the ADVANCE Research Committee. Per the design of
the study, chairs and directors are being invited to participate in cohorts. The first cohort consisted of chairs and directors from CEPS and CHHS.

Of the approximately 30 leaders or emerging leaders invited in these colleges, 21 attended at least one of the two workshops. Most participants were from CEPS, held the position of Chair, and were men (see Table 3).

Table 3. Characteristics of REAL Workshop Participants

<table>
<thead>
<tr>
<th></th>
<th>Workshop #1 (N=17)</th>
<th>Workshop #2 (N=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEPS</td>
<td>13</td>
<td>8</td>
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<tr>
<td>CHHS</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chair (including Associate &amp; Interim Chair)</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Dean/Associate Dean</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Program Director</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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</tr>
<tr>
<td><strong>Gender</strong></td>
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<td></td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>17</td>
<td>12</td>
</tr>
</tbody>
</table>

The REAL Leadership Development Grant Program (just launched) provides funds to support chairs and program directors attendance additional leadership development programs.

*Evidence of Impact-Evaluation Forms:*
At the end of Workshop #2, all 12 participants completed evaluation forms to collect formative feedback and assess how well the various components helped them facilitate a positive climate for faculty, particularly women faculty, in their department or unit. Figure 19 provides responses for the two workshops and for the trainings as a whole and Figure 20 provides responses for the summer booster material.
All ten participants who completed the evaluation form reported the sessions as a whole were “moderately useful” (4 out of 10) or “very useful” (6 out of 10). The discussion of case studies were most useful to participants for helping them facilitate a positive climate for faculty, particularly women faculty, in their department or unit. In the open-ended responses, participants explained that the case studies were especially useful because (1) they were realistic and thought-
provoking, and (2) they provided opportunity for group discussion. Suggestions for improvement centered around the possibility of making the session a bit shorter and shortening the presentation to allow more time for discussion. In reflecting on the entire trainings as a whole, open-ended responses reveal the case studies were the most useful aspect of the training because of the discussions and the opportunity to hear what is happening in other departments.

While the summer boosters were favorably evaluated by those who participated in them, participation was low. However, open-ended responses suggest that of the various booster material, the Implicit Associations Test was identified as being most useful. One participant did note that the IAT might have been more meaningful after the workshop. In commenting on the summer booster material, another participant noted, “The boosters were less effective because of the lack of discussion. As content they were still quite useful.”

To better understand how participants are planning to apply the information from the trainings, they were also asked “As a result of the information I learned in today’s workshop I will ...” The majority of participants reported they will be more mindful (for example, “be more mindful of implicit biases,” “be more mindful when it comes to issues where bias might occur and watch for it,” “be more mindful of including everyone in decision making”). Two participants also mentioned they will use the information to help negotiate higher salaries for incoming faculty. Other responses included “reach out to other chairs for advice and decision support” and “be a much better chair than I probably would have otherwise.”

Evidence of Impact-Interviews:
In mentioning the chair training in interviews, chairs offered very positive feedback:
“The material was appropriate and the scenarios. I felt it was somewhat preaching to the choir, but learning to recognize the problem is the point. Very worthwhile.”

“[The chair training] went over really well. It was very positively received.”

“It’s very helpful to keep these issues in the back of my mind. It keeps me on my toes...It also makes me nervous about what I don’t see.”

Chairs and deans also noted the critical role the dean plays with respect to setting expectations and prioritizing ADVANCE-related goals:
“Deans have played a big role in getting chairs there. For continued success, deans have to project [to chairs] it’s really important for them to come.”

“[A fellow dean] has been my greatest influence in terms of learning how to support ADVANCE, keeping it on my radar, and encouraging participation among chairs and faculty.”
Additional evaluation data:
The Social Science Research team collected pre- and post-test data to measure changes in attitudes and knowledge over the course of the REAL trainings. The Pre-test was administered prior to the first workshop and the post-test survey at the second workshop. The Social Science Research team is currently analyzing the pre- and post-test data from the first cohort. Moreover, the impact of the REAL trainings on departmental climate will be examined through analysis of the climate survey data (see section 4.6).

4.2.1.1 Initiative 2.1 Summary and Recommendations

The REAL Department Chair Training serves two roles: (1) it is designed to improve the support and department level climate for STEM/SBS faculty women; and (2) it is the focus of the social science research project, which tests the impact of the training on the representation of and departmental-level climate for women faculty at UNH.

The first round of training sessions took place between April and August 2014. By design, the first cohort of chairs to attend the training were from CEPS and CHHS. Of the approximately 30 leaders (or emerging leaders) invited, 21 attended at least one of the workshops. Of the three training activities (Applied Theater Workshop, Summer Booster material, Discussion of Case Studies), the discussion of case studies was identified as being the most useful for helping participants facilitate a positive climate for faculty, particularly women faculty. The summer boosters were less effective overall because many did not participate. Most intend to apply what they learned from the trainings to be more mindful and to help negotiate higher salaries for incoming faculty. The role of the deans in encouraging chairs to participate was noted by participants in the interviews.

Recommendations:

- Deans play a pivotal role in setting expectations and garnering enthusiasm for ADVANCE goals. Continue to work with deans to encourage chair participation in the second cohort of training to maximize participation.
- Re-evaluate the structure of the summer boosters to maximize participation or consider a different format for relaying the information provided in the boosters.
- Chair training is the primary mechanism that engages chairs (who are very important to the process of institutional transformation). It will be two more years until all the chairs will have completed the training (as necessitated by the quasi-experimental design of the social science study). Without compromising the design of the social science study, it will be important to keep chairs updated on the ADVANCE programming available to their faculty and involving them in other ADVANCE activities, as appropriate.
- Continue to advertise the opportunity provided by the REAL Leadership Development Grant Program, which provides funds to support chairs and program directors attendance additional leadership development programs.
4.2.2 Initiative 2.2: Establish Formal Mentoring Policy

The Career Success subcommittee of the ADVANCE Faculty Career Advancement Committee reviewed findings pertaining to mentoring from the Fall 2013 climate study, reviewed mentoring programs across ADVANCE institutions, and gathered information about cohort mentoring opportunities currently available at UNH.

Turnover in both faculty co-chairs of the Career Success committee occurred in September and a new chair has just assumed this role.

With the establishment of Pathways to Professorship (section 4.1.2.2), the charge of the Career Success subcommittee was reported as likely being focused on mentoring for pre-tenure faculty.

Findings from Interviews:
Interviews with pre-tenure faculty reveal several successful programs (formal and informal) for meeting their mentoring needs, in particular the mentoring offered by various Faculty Development Programs offered out of the Office of the Senior Vice Provost for Engagement and Academic Outreach (such as the Writing Academy) and informal mentoring opportunities such as monthly lunches for first and second-year faculty in CEPS sponsored by the CEPS Dean.

However, several faculty (women and men) mentioned additional needs, for example:

“UNH is small and so I am really the only person here doing research in my field. To get research-specific mentoring, I need to find people outside of the university and that is more difficult to put in motion. I could use help with that.”

“I have a formal mentor in my department but not a champion.”

“I could use a mentor outside of my department.”

“Mentor training would be useful. I didn’t know how to be mentored and mentors didn’t know how to mentor me….My department mentor always had all of the information I needed, but I didn’t know what I needed and so I didn’t always ask.”

4.2.2.1 Initiative 2.2 Summary and Recommendations

The Career Success subcommittee has identified pre-tenure faculty as the likely focus of their activities. They reviewed findings from the Fall 2013 climate study that addressed mentoring, reviewed mentoring programs at other ADVANCE institutions, and gathered information about cohort mentoring opportunities available at UNH.
Interviews with pre-tenure faculty conducted as part of the external evaluation suggest that pre-tenure faculty do have mentoring needs that are currently not addressed fully and that they would benefit from additional mentoring (especially outside of the department and possibly outside of UNH). Mentor training is needed to help mentors and mentees get the most out of their relationships.

Recommendations:
- Proceed with plans to provide mentor training
- Revisit mentoring needs of Associate Professors as not all are eligible to participate in the Pathways to Professorship program

### 4.3 Goal 3: Conduct a wage equity analysis and recommend any policy changes that might be indicated

An ADVANCE Salary Equity Team (SET) was established in Year 2. The team has representation from Human Resources, the AAUP, the Office of the Provost, and UNH faculty. The team is working to conduct a salary equity analysis given the AAUP context and has decided to adopt the procedure detailed in AAUP’s “Paychecks” manual. A PhD student in Economics has been hired to support the work of the committee. The report should be complete in the next few months.

### 4.4 Goal 4: Develop more flexible workplace policies that support career advancement for STEM faculty women

#### 4.4.1 Career-Live Balance Subcommittee

The Career Life Balance subcommittee of the ADVANCE Faculty Career Advancement Committee has focused its work in Year 2 in two areas: (1) family leave policies, and (2) child care information.

UNH current grants 12 weeks of paid leave, but the committee has found inconsistencies in how that leave is applied and that it was not well suited to the academic calendar of the semester system. The subcommittee researched family-friendly policies at comparator institutions and based on that review, they will be making the recommendation that UNH adopt a policy providing a semester of paid leave to all faculty with a qualifying event and that the definition of qualifying events be expanded beyond childbirth or adoption (for example, to care for an ill family member). The committee will recommend that the university offer this as a benefit so that it does not have to go through the Collective Bargaining Agreement.

The Career Life Balance subcommittee also research child care options in the Durham area, worked with HR to provide additional child care resources on the HR
website, and researched child care options at other universities. Moreover, the subcommittee worked with HR to include other family-friendly resources, such as elder care, adoption assistance, mental health, and substance abuse. The resources are available on UNH’s HR website and on the ADVANCE website.

4.4.2 Goal 4 Summary and Recommendations

The Career Life Balance subcommittee has made substantial progress in Year 2 in the two areas of focus: family leave policies and child care information. They are working to have UNH provide a semester of paid leave to all faculty with a qualifying event and seek to expand the definition of a qualifying event beyond childbirth or adoption. The childcare resources they assembled are now available on the HR website and on the ADVANCE website.

Recommendations:

- Review findings from the climate survey for questions pertaining to work-life challenge and use these climate survey questions as benchmarks from which impacts can be assessed
- Educate chairs and deans on family leave policies to increase fair and consistent application across faculty members and departments
- Disseminate information to prospective faculty and current faculty through channels such as the New Faculty Orientation and HR meetings with faculty search committees
- After completing work on family leave policies and child care information, review other key work-life policies, such as tenure clock stoppage, ensuring the policy is equitable and is opt-out (consistent with best practices at other universities)

4.5 Goal 5: Create and maintain campus-wide awareness of the issues addressed and policy changes made under the ADVANCE-IT initiative

4.5.1 UNH Unbiased Website

The ADVANCE website was redesigned and populated with current content. It has been updated to reflect the current activities, resources developed, and other key program information.

4.5.2 Distribution of 2013 Climate Study Findings

Findings from the 2013 Climate Study were released in two reports at the end of September and were discussed at a Faculty Forum in October. The two reports address a description of the tenure track faculty respondents and faculty
perceptions of department influence, fit, and fairness (see section 4.6 for findings). The reports are available on the ADVANCE website. While the Forum was not as well publicized or attended as the team had hoped, those who attended were very engaged with the data. To help distribute findings (and encourage participation in the upcoming Fall Climate Survey), members of the ADVANCE team and Internal Advisory Board are visiting all of the college meetings to share findings and emphasize the importance of participating in the climate surveys in order to provide accurate representation for their college.

There is also discussion of the possibility of using some of the climate study findings in the REAL workshops.

4.5.3 Other Communication and Dissemination within UNH

The ADVANCE Team has proactively pursued opportunities to raise and maintain campus-wide awareness of the goals of ADVANCE at UNH across different venues, for example, presentations to the Faculty Senate and at faculty meetings (on the Durham campus and also at UNH Manchester and UNH law). An article about the December 2013 GEAR UP training also ran in the UNH Campus Journal.

4.5.4 Goal 5 Summary and Recommendations

The redesign of the website and dissemination of the Fall 2013 Climate Study findings (including through college meetings) were key activities to create and maintain campus-wide awareness of the issues addressed under the ADVANCE-IT initiative. The first 2 (out of a planned series of reports) on the climate study were released and are available on the ADVANCE website.

Recommendations:
• Web analytics could be utilized to provide insights as to how often material is accessed on the ADVANCE website
• Continue to pursue opportunities to disseminate findings from the climate surveys, including within ADVANCE programming such as the REAL training, GEAR-UP, mentor training, and P & T committee training

4.6 Goal 6 - Social Science Research Study: Conduct a longitudinal field experiment to assess Goal #2 by investigating the impact of department chair professional development on department level climate at UNH

The Research Committee is conducting a social science study to investigate the impact of the department chair professional development program on the
representation of and departmental-level climate for women faculty at UNH. A quasi-experimental design will test the following hypotheses:

**Hypothesis 1:** There will be a significant gender difference in baseline measures of perceived departmental climate and degree of influence such that women STEM faculty will perceive a more negative climate and less ability to influence departmental decisions than men STEM faculty.

**Hypothesis 2:** Baseline institutional data will reveal significantly higher male-female ratios in every college (except HHS), at senior ranks, and compared to national averages.

**Hypothesis 3:** There will be no significant gender difference in faculty's perceived departmental level climate and degree of influence subsequent to the implementation of department chair professional development programs.

**Hypothesis 4:** There will be a significant reduction in male/female ratios in the STEM disciplines at senior ranks subsequent to the implementation of department chair professional development programs.

The quasi-experimental design involves staggering the “treatment” (REAL Chair Professional Development) over time by college to create a control group of departments that did not yet receive “treatment.” (By the end of the grant, all departments will have participated in the REAL Chair Professional Development program.) In Year 2, the first cohort to receive the intervention were the College of Engineering and Physical Sciences (CEPS) and the College of Health and Human Services (CHHS). (See section 4.2.1 for information about the REAL Chair Professional Development program.) In Fall 2013, the Research Committee also collected baseline climate survey data (from which changes in departmental-level climate can be measured post-intervention). The survey had a 53% response rate, with women slightly more likely to respond than men. The distribution of respondents by rank and by college is similar to the distribution of faculty overall. The 2014 Fall Climate Survey has just been released.

The Research Committee and Chair Professional Development Committee have worked together closely and effectively to coordinate efforts. Findings from the climate survey have been communicated with the other committees to guide efforts (for example, preliminary results from the climate survey pertaining to mentoring were shared with the Career Success Subcommittee in charge of the mentoring activities of the program). The Research Committee has also communicated regularly with the external evaluator and provided findings from the climate survey to be used as baseline data for program components (for example, GEAR UP).

The Research Committee is also working with the ADVANCE logic model (currently under revision and expansion) to assess how climate survey data can best address the desired outcomes of the grant.
Baseline Data:
The Fall 2013 Climate Survey provides baseline data on department climate from which the effects of the REAL Chair Professional Development Program can be measured. Dimensions of climate measured in the survey included perceived influence in the department, fit within the department, and fairness in departmental practices. Figures 21-23 (provided by the Research Committee) display gender differences across these climate dimensions for STEM and SBS tenure-track faculty.

Table 21. Perceived Influence in the Department

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
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</thead>
<tbody>
<tr>
<td>All</td>
<td>2.86*</td>
<td>2.75</td>
</tr>
<tr>
<td>STEM</td>
<td>2.91*</td>
<td>2.74</td>
</tr>
<tr>
<td>SBS</td>
<td>2.85*</td>
<td>2.77</td>
</tr>
</tbody>
</table>

* Significantly higher to the other gender (p<.05)

Figure 22. Perceived Fit within the Department

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
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</tr>
<tr>
<td>STEM</td>
<td>3.13*</td>
<td>2.93</td>
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<tr>
<td>SBS</td>
<td>3.05</td>
<td>2.75</td>
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</tbody>
</table>

* Significantly higher to the other gender (p<.05)

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5 Influence in the department was measured with 16 items, fit within the department was measured with 7 items and department fairness was measured with 6 items. For additional information on the measures, see: www.unh.edu/sites/www.unh.edu/files/departments/unh_advance/PDFs/climate_study-perceptions_2014-2_final0814.pdf
Across UNH as a whole and in STEM and SBS, women tenure-track faculty report having less influence in the department. Women tenure-track faculty also reported less fit with their department and perceived less fairness within the department, although the gender differences were statistically significant in STEM but not in SBS for these two items.

### 4.7 Other Findings

**Internal Steering Committee:**
- The ADVANCE Team has effectively engaged the Internal Steering Committee. They meet regularly (approximately monthly) and see their charge as raising questions and offering advice or suggestions. The committee feels their input is valued.
- The Internal Steering Committee is helping to build awareness of ADVANCE goals and programming, including participating in college meetings to discuss climate survey findings and encourage participation in the second climate survey (currently in the field)
- Research Faculty now have representation on the Internal Steering Committee
- For the future, it is important to consider that constituencies are not over- or under-represented on the committee

**Workload of Associate Professors**
- Many of the ADVANCE Committee and Sub-Committee members are women faculty at the Associate Professor rank. It is important that their service to ADVANCE replace (rather than add to) other department and university service so that they can successfully advance to Professor.
- As possible, utilize strong male advocates to carry more of the workload
Communication:
• Chairs of Committees report a good understanding of the project as a whole because of regular Committee Chair meetings. While they take information back to their respective committees, committee members would like to have more opportunities to be informed about what is happening across committees.
• There are no targeted email lists available for the ADVANCE team to use to communicate directly with faculty (or subgroups of faculty) about ADVANCE events and opportunities

Dean Accountability for Search Process:
• Stakeholders reported that deans are taking steps to hold chairs and search committees accountable by reviewing the composition of the search committee (especially to make sure there are women faculty on the committee) and reviewing the short list (for example, “chimed in when thought it was not a representative slate with respect to gender representation,” and “making sure the short list was diverse”). However, there was variation with respect to the degree to which search committees were held accountable.

Dual Career Issues:
• Several stakeholders mentioned dual career issues (with dual academic couples and those with a partner/spouse outside of academia) as being especially challenging for the recruitment retention of faculty

Commitment of UNH Leadership:
• Commitment to the goals of ADVANCE is evident from the top administration, including the President, Provost’s Office, and deans. As noted by stakeholders:
  “It helps to have people in positions of leadership who gets it and can speak eloquently about the problem. We all feed off of that.”
  “They get it. They are really committed. Upper administration really reinforces it.”

Scope of Impact:
Demographic information on faculty and administrative participants in STEM and SBS departments is provided in Table 4.6 By the end of Year 2, ADVANCE participants span a wide range of colleges and ranks. About one-third of participants in STEM and SBS are women, mostly at the ranks of Associate Professor and Professor. Likewise, most of the male participants are Associate Professors and Professors.

6 Participation involves attending ADVANCE-sponsored events/trainings and/or applying for ADVANCE-funded grants (for example, Visiting STEM Women Faculty). Not all participants in the Total had a department/unit (for example, deans are included in the Total but not in a particular department).
Table 4. Dept, Rank and Gender of STEM/SBS Faculty & Administrative Participants

<table>
<thead>
<tr>
<th>Dept/SBS</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Computer Science</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Earth Sciences</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>EOS (only)</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Professor</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>COLSA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Molecular, Cellular &amp; Biomedical Sciences</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Natural Resources and the Environment</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Professor</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>COLA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthropology</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Geography</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Political Science</td>
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<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sociology</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Professor</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Paul</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision Sciences</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Economics</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Management</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Faculty Rank</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Professor</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>63</td>
</tr>
</tbody>
</table>
When looking specifically at women STEM and SBS faculty (Table 5), 40% of women faculty (tenured, tenure-track, and other faculty) have participated in the ADVANCE by Year 2. Participation of STEM faculty is higher than SBS faculty, 46% and 23%, respectively. The highest participation rates in the STEM colleges are in CEPS, with 55% of women faculty participating. The highest participation rate in the SBS colleges is in Paul, with 30% participants. Across colleges, women Associate Professors and Professors generally have the highest participation rates.

Table 5. Scope of Impact for Women Faculty\(^7\) by College and Rank

<table>
<thead>
<tr>
<th>STEM COLLEGES (CEPS/EOS, COLSA)</th>
<th>26</th>
<th>56</th>
<th>46%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEPS &amp; EOS</td>
<td>16</td>
<td>29</td>
<td>55%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>3</td>
<td>8</td>
<td>38%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>7</td>
<td>10</td>
<td>70%</td>
</tr>
<tr>
<td>Professor</td>
<td>5</td>
<td>7</td>
<td>71%</td>
</tr>
<tr>
<td>Other Faculty</td>
<td>1</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>COLSA</td>
<td>10</td>
<td>27</td>
<td>37%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>3</td>
<td>10</td>
<td>30%</td>
</tr>
<tr>
<td>Professor</td>
<td>4</td>
<td>5</td>
<td>80%</td>
</tr>
<tr>
<td>Other Faculty</td>
<td>1</td>
<td>10</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SBS COLLEGES (COLA, Paul)</th>
<th>8</th>
<th>35</th>
<th>23%</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLA</td>
<td>5</td>
<td>25</td>
<td>20%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>0</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>4</td>
<td>11</td>
<td>36%</td>
</tr>
<tr>
<td>Professor</td>
<td>1</td>
<td>6</td>
<td>17%</td>
</tr>
<tr>
<td>Other Faculty</td>
<td>0</td>
<td>3</td>
<td>0%</td>
</tr>
<tr>
<td>Paul</td>
<td>3</td>
<td>10</td>
<td>30%</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>0</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>1</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Professor</td>
<td>2</td>
<td>3</td>
<td>37%</td>
</tr>
</tbody>
</table>

| TOTAL STEM & SBS                | 34 | 91 | 40% |

Interview data suggest that awareness of the grant may be uneven across colleges. Several faculty commented that they felt CEPS was more highly engaged generally and attribute this to the strong advocacy of the CEPS Dean, who is also a Co-PI. The ADVANCE team should be mindful to track involvement by other colleges specifically and use data to identify where additional efforts might be warranted to address climate issues or other challenges facing women STEM/SBS faculty.

\(^7\) In comparison to the previous table, this table omits administrators without a tenure department.
5. Conclusion and Recommendations

The UNH-Unbiased team is working very well together and communicating effectively. Hard work was undertaken in Year 2 to address the delay in implementation in Year 1. The team was very deliberate and thoughtful in forming the various committees and subcommittees and that work is paying off.

During Year 2, the GEAR-UP Search Committee Training stands out as having an especially substantive impact. Three rounds of GEAR-UP training have been conducted to date and data from evaluation forms, interviews, and the sex composition of applicant pools, finalists, offers, and hires made suggest the training has increased participants’ awareness of how gender, microaggressions, and/or implicit biases affect the evaluation of candidates, has helped to change practices on search committees, and may have resulted in higher percentages of women being hired in STEM and SBS. Baseline climate survey data on perceptions of recruitment and search committee practices has been collected and changes over time will be examined as annual climate survey data become available.

The first round of REAL Department Chair Training also took place and is the focus of the social science research. Although pre- and post-test data are still be analyzed, baseline data from the Fall 2013 Climate Study has been analyzed and subsequent surveys will be used to gauge impact of the chair training on departmental culture. Data from evaluation forms and interviews suggest the training holds promise as a way to improve the support and department climate for women STEM/SBS faculty.

Meaningful progress was also made on the remaining program goals and initiatives, with several Committees and Subcommittees engaging with the Faculty Senate, HR, and the faculty union to advance the project goals.

Other strengths observed during Year 2 include:

• Social Science Research is underway, with baseline climate survey collected and pre- and post-test data under analysis
• Social Science Research findings are being shared with and utilized by the committees to inform the work of program initiatives
• Internal Steering Committee is being well-utilized
• Monthly Faculty Fellows meetings are providing opportunities for communication for the committee chairs, preventing the siloing of activities
• UNH-Unbiased team is using evaluation findings to guide programming decisions
• Inclusion of Research Faculty in process of institutional change (representation on the Internal Steering Committee, plans to issue a report on climate study findings for research faculty, plans to review promotion documents for research faculty)
• ADVANCE team is structurally well-situated to work within the context of a unionized faculty to make the types of policy changes proposed
• Deans are holding search committees accountable for the composition of the search committee and reviewing the short lists for gender diversity

Challenges in Year 2 include:
• Lack of targeted faculty email lists from which to notify faculty of relevant events and opportunities
• Addressing the needs of women STEM/SBS Associate Professors who are ineligible to participate in the “Pathways to Professorship” program because they have been at the Associate Professor rank for more than 5 years
• Full implementation of some program components has not yet been achieved
• Keeping all committee members informed of what is happening on other committees (committee chairs are well informed, but other committee members less-so)
• Workload balance of women Associate Professors involved in implementation

Key Recommendations:
Based on the strengths and challenges identified above, the following key recommendations should be considered to further strengthen project activities and maximize effectiveness:

Associate Professor Faculty Development/Mentoring
• Assess what faculty development opportunities could be offered to Associate Professors who are not eligible to participate in the Pathways to Professorship Program offered by the Office of the Senior Vice Provost for Engagement and Academic Outreach
• Consider interest in and feasibility of supplementing the curriculum of the Pathways to Professorship Program with additional workshops (outside of Pathways) that address the needs of STEM/SBS women faculty specifically

REAL Chair Professional Development
• Continue to work with deans, helping them to continue to be strong advocates for ADVANCE. Deans are especially critical for encouraging participation in the REAL Chair Professional Development workshops, a central program activity and the focus of the social science research.
• Re-evaluate the structure of the summer boosters portion of the training

Full Program Implementation
• Adhere to an aggressive implementation timeline for program elements that are yet to be launched
• All program elements should be developed and launched prior to the NSF 3rd Year Site Visit

Search Committee Accountability
• Encourage all deans to hold chairs and search committees accountable for the composition of the committee and the short lists of candidates
Sustainability
- Initiate discussions regarding the potential sustainability of key program activities
- Be prepared to address issues of sustainability in a meaningful way for the 3rd Year NSF Site Visit

The UNH-Unbiased Team has built momentum in Year 2. Their conscientious development of committees and of program elements is paying off. Remaining program initiatives should be launched as quickly as possible so that their impacts can be evaluated to prepare for the 3rd Year NSF Site Visit and to facilitate the eventual institutionalization of successful initiatives. The team can discuss and articulate their main contributions to the larger community and then disseminate them to other institutions.