

# **Proposal for an NSF ADVANCE Institutional Transformation (IT) program at the University of Wyoming**

## **Synopsis and outline of specifics of UW ADVANCE IT proposal**

STEM disciplines face a continued pressing problem of recruiting, retaining, and advancing female faculty. This situation is particularly pronounced at the University of Wyoming. Our proposal will analyze the faculty pipeline processes from recruitment and hiring, through successful promotion to associate and full professor, and beyond into administrative and other director positions. Using an evidence-based process, we will provide specific recommendations, new policies, and other paths for improvements. Our proposal focuses on the following key issues identified in preliminary research as critical to female STEM faculty at the University of Wyoming (UW):

- 1) **Implicit bias:** Due to the limited nature of Wyoming's STEM industry (agriculture, coal, petroleum, and natural gas), the vast population of UW students and employees have seen a limited number of women in STEM fields and high technology jobs. This makes for stronger implicit bias towards women faculty especially in the STEM disciplines at UW when compared to other universities.
  - a. We will provide mechanisms for change and improvement of this situation with respect to peer evaluations, tenure and promotion discussions, and other critical junctures.
  - b. Potential bias in teaching evaluations related to instructor gender will be investigated and mechanisms for needed improvements will be proposed.
- 2) **Work-life balance.**
  - a. **Child care and parental leave:** Currently there is no parental leave policy at UW, therefore the leave available is provided by the Family and Medical Leave Act (FMLA). This leaves parental leave completely under the control of departments, especially chairs and heads of departments, and there is a total lack of uniformity across different departments and colleges. Furthermore, the capacity of the child care facility on campus is grossly inadequate for current demands. Both these issues negatively impact the recruitment and retention of all faculty, especially women faculty. One of our goals will be to help establish a uniform parental leave policy across the university. In addition, we are in conversation with the UW Foundation to solicit funds for expansion of childcare facilities, and to develop care for K-12 children during the summer and on the days when UW is in session but the public schools are not. This strategy has been successful at other universities, notably at Oregon State University and Texas A&M.
  - b. **Spousal hire/dual career:** Currently there is no policy for spousal hiring at UW, which results in lack of uniformity on how this situation is dealt with across the university. This directly impacts women faculty as they often are part of families facing dual career situations. One of our goals will be to help establish a uniform policy on spousal hiring across the university.
- 3) **Environment and conditions for advancement.**
  - a. **Salaries and startup packages:** Discrepancies between male and female faculty will be investigated and mechanisms for any needed corrections will be proposed. This can significantly affect the career advancement of women faculty as adequate startup

packages including laboratory space are critical in most STEM disciplines and in many other disciplines (eg. studio space in Art).

- b. Salaries equity with respect to gender will also be examined; however, the studies will include all faculty.

The proposal will consist of a combination of actions that will require time and effort (review of existing policies and procedures and development of policies and procedures as needed), and other actions that will cost money. The initial funding for some of the latter items will be obtained via ADVANCE, in conjunction with partnerships with UW Foundation, and buy-in from various administrators. As per NSF guidelines, we will obtain memoranda of understanding from various parties for retaining the necessary parts of the program after the grant (if successful) ends.

### **Overview, background, and completed preparation.**

The NSF ADVANCE program is aimed at “increasing the participation and advancement of women in academic science and engineering careers.” The website for the solicitation can be found at:

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5383](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5383)

The University of Wyoming is eligible to apply for the Institutional Transformation (IT) program track within ADVANCE. Since January 2015, a group of faculty and administrators at UW have worked on preparing background materials, including conducting and analyzing the work-life climate survey that was administered in September 2015, meeting with various Deans, Directors, etc., and meeting with various faculty and groups such as the Committee on Women and People of Color (COWPOC), to put together a proposal to NSF. The proposal is due on January 20, 2016. The IT proposals are aimed at creating large-scale institution-wide changes with the immediate aim of recruitment and career advancement of women faculty primarily in the NSF-defined STEM disciplines. However, the program is meant to help all faculty at the institution in that various programs, policies, procedures developed under the ADVANCE IT grant are always to be open to all faculty, and will affect all faculty. Please note that for the UW proposal, the definition of faculty will conform to the UW definition that includes academic professionals in addition to tenure-track and tenured professors.

The Vice President for Research and Economic Development and the Vice President for Academic Affairs have jointly funded the major budget items in the preparations thus far: support for a GA to collect information from successful ADVANCE IT proposals, implementation and analysis of the Sept. 2015 climate survey, and various aspects of proposal preparation. The ADVANCE team has met with some of the Deans and will be meeting with the remaining Deans over the next few weeks. We have met with personnel at the Office of Institutional Analysis and at the 3D visualization center to put together novel data visualizations for information collected under the proposed project and for the broader impacts portion of the grant. We have a group of social science researchers who will conduct the basic research that must accompany an IT proposal. We have also met with Interim Associate Vice President for Academic Personnel Benham-Deal, with the COWPOC leaders and are in conversation with Brett Befus at the UW Foundation. We have an external advisory committee in place as well as the external evaluators (two former NSF ADVANCE program officers).

**Personnel:**

The PIs for the proposal are:

Principal Investigator (PI): S. Huzurbazar (Statistics)

Co-PIs: C. Weinig (Botany and Molecular Biology), A. Zajacova (Sociology), E. Ferre-Pikal (Electrical and Computer Engineering)

*There is a long list of individuals from whom we have received support and input. These include (though the list is not exhaustive):*

William Gern, VP for Research and Economic Development

Tami Benham-Deal, Interim Associate Vice President

Paula Lutz, Dean of A&S

Michael Pishko, Dean of Engineering and Applied Sciences

Indy Burke, Director of Haub School of Environment and Natural Resources

Donna Brown, Director of Ellbogen Center for Teaching and Learning

Narina Nunez, Professor, Psychology

Chian Ritten-Jones, Assistant Professor, Agriculture and Applied Economics

Amy Banic, Assistant Professor, Computer Science