

OREGON STATE ADVANCE

INSTITUTIONAL CONTEXT AND DATA

Founded in 1868, Oregon State University (OSU) is the state's Land Grant university and is one of only two universities in the United States to have Sea Grant, Space Grant and Sun Grant designations. OSU also holds the Carnegie Foundation's top designation for research institutions and its Community Engagement classification. The university has nearly 28,000 students and offers more than 200 undergraduate and 80 graduate degree programs. It has nearly 3,500 faculty members in its 11 colleges. Its core values are: accountability, diversity, integrity, respect, and social responsibility.

Recently, OSU has taken a number of significant steps to advance diversity and support women and members of other underrepresented groups. The offices of Affirmative Action, Women's Advancement and Gender Equity, and Diversity and Community were reorganized into a single Office of Equity and Inclusion. A Tenured Faculty Diversity Initiative supports the hiring of diverse faculty. All administrative position announcements include a demonstrated commitment to diversity as a required qualification (it is a preferred quality in all faculty announcements), and candidates must answer a specific question during interviews about their diversity commitments. In the past two years, the university has created an office of Work-Life, helped form the Greater Oregon Higher Education Recruitment Consortium (HERC), developed a Dual Career Hiring Initiative, created a Leadership Academy for chairs and directors, adopted an anti-bullying policy, and hired an ombudsperson. Search Advocates are trained and available to serve on search committees to help address implicit bias and encourage attention to diversity. These initiatives address specific problems identified on OSU's campus, but they need to become embedded in a much larger institutional transformation that will change the culture, as well as policies and procedures. OREGON STATE ADVANCE will provide that larger institutional framework for transformation.

Need for ADVANCE. While the changes described above have come at the upper administrative level, we have not had cultural and procedural changes effectively and equitably spread throughout individual STEM units in the colleges. Institutional assessments indicate ongoing need for attention to issues of diversity, particularly for women and people of color. In 2011, OSU President Ray called for a comprehensive self-study to engage the OSU community in examining equity, inclusion, and diversity efforts university-wide. The scope and ambition of this process were unprecedented for the university; while there had been numerous evaluation and planning efforts related to equity, inclusion, and diversity, none had been as comprehensive or as engaging. The self-study process involved efforts to engage with and obtain the perspective of members of the university community, review promising practices at other institutions, consider what data the university should collect and analyze on an ongoing basis, and determine how the university should regularly assess the climate. While considerable progress has been made, the self-study and external review revealed areas for continued improvement, such as increasing the representation of groups historically underrepresented in the professoriate, equalizing student academic success rates across identity groups, and assessing the university climate on an ongoing basis toward the goal of fostering a sense of inclusion. As a result, OSU prioritized seven strategic objectives to pursue over the next five years, including creating a senior-level advisory council, developing strategies to diversify the workforce, and increasing accountability for equity, inclusion, and diversity. An outside team of experts reviewed these recommendations and assessed our institutional capacity to enact our visions and realize our goals. Overall, the self-study and external review uncovered a strong sense of institutional commitment to diversity and a sense of hope among the community in the university's potential for change.

Only 23% of OSU's STEM (including SBS) faculty are women (Table 1), and women make up only 20.8% of full professors in these disciplines. Only 20 of the women faculty in STEM disciplines are U.S. women of color (3%), with another 5 in SBS (Table 2). Another 24 STEM faculty women are international faculty. Data are not available on the numbers of women faculty who have disabilities or

identify as lesbian, bisexual, transgender, or queer (LBTQ). In preparing for this proposal, researchers used snowball sampling to conduct focus groups with these subpopulations of STEM women faculty. The women of color focus groups indicated specific concerns around student perceptions of women of color faculty and their own perceptions of bias incidents. They also noted the lack of awareness of issues for diverse faculty among colleagues, administrators, and students, and they pointed out the obvious dearth of women of color faculty on campus. Participants in the LBTQ group had mostly positive experiences but encouraged attention to all kinds of families. International women suggested a need for more information about campus resources, such as the Women’s Center and the Association for the Advancement of People of Color. They also noted the impact of stereotypes and remarked on the level of rudeness they experienced frequently from students. Participants in the disabilities group noted a lack of departmental administrative support for accommodations and explained the loss of privacy in having to disclose disabilities to receive needed support. Even such disclosures, however, did not guarantee help, for example, in scheduling classes to accommodate energy levels. These groups asked for consciousness-raising on campus, mentoring programs that also provided education in diversity issues for mentors, and increased training for search committees. They also echoed the concerns of women on the internal advisory group about work-life balance and family issues. Efforts at change for women within higher education will likely be unsuccessful without attention to the role of these intersections within the institutional context (Pifer, 2011). With its focus on intersectionality, OREGON STATE ADVANCE will pay specific attention to addressing issues for women across all of their diversity (Crenshaw, 1991) and come up with practical long lasting solutions to these issues.

Table 1. Number of T/TT (excludes emeritus but includes administrators) Women Faculty in STEM/SBS

Category	Number of Women				% Women	% Women Oct 2012			
	Oct 2009	Oct 2010	Oct 2011	Oct 2012	Oct 2012	Instructor	Assistant Prof	Associate Prof	Full Prof
STEM	115	114	119	129	20.8%	16.7% (1/6)	25.2% (28/111)	20.2% (38/188)	19.6% (62/316)
SBS	29	30	35	35	41.7%	0% (0/2)	60.9% (14/23)	37.9% (11/29)	33.3% (10/30)
STEM/SBS	144	144	154	164	23.3%	12.5%	31.3%	22.6%	20.8%

Table 2. Representation of OSU STEM/SBS Minority T/TT Faculty

STEM	Minority Male Faculty					Minority Female Faculty					Minority Female % of STEM for this year
	Instructor	Asst Prof	Assoc Prof	Full Prof	Total	Instructor	Asst Prof	Assoc Prof	Full Prof	Total	
2009	0	21	26	26	73	0	8	4	4	16	3%
2010	0	20	24	27	71	0	8	3	5	16	3%
2011	0	17	25	28	70	0	7	6	6	19	3%
2012	0	14	27	29	70	0	7	6	7	20	3%
SBS	Instructor	Asst Prof	Assoc Prof	Full Prof	Total	Instructor	Asst Prof	Assoc Prof	Full Prof	Total	of SBS for this year
2009	0	1	4	2	7	0	1	3	0	4	5%
2010	0	1	3	3	7	0	1	3	0	4	5%
2011	0	1	3	3	7	0	2	3	1	6	7%
2012	0	2	3	3	8	0	2	2	1	5	6%

OSU’s Difference, Power, and Discrimination Program. One of OSU’s most innovative and effective programs for supporting diversity is its Difference, Power, and Discrimination (DPD) faculty development program. The DPD program began in 1992 as a response to ongoing and pervasive concern about climate and curriculum on campus. Upon Faculty Senate approval, beginning in 1994, all OSU undergraduate students were required to take a DPD course selected from a menu of about 60 approved courses across the university. DPD courses have the unequal distribution of power within the disciplinary framework as their central focus. To prepare faculty to develop and teach DPD courses, the DPD director offers an annual 60-hour summer seminar that focuses on theories of systems of oppression and teaches faculty to center issues of power, privilege, and difference within their disciplines. As a result of participation in the seminar, faculty members should be able to: explain how difference is socially constructed and how these social constructions are used to maintain systems of oppression; explain the

role of intersectionality in systems of oppression; explain the ways systems of oppression work to maintain social inequality; offer historical and contemporary examples of oppression and resistance; analyze ways systems of oppression are manifest in and maintained by social institutions; synthesize readings and activities into a comprehensive theoretical framework; evaluate social institutions, trends, and events through a lens of gender (along with the intersecting lenses of race, social class, sexual identity, age, ability, religion); explain the role of resistance in challenging systems of oppression; and examine and understand their own values around diversity.

Around 200 faculty members have participated in the seminar since 1994, although few have been from STEM disciplines. During the university's review of the baccalaureate core in 2009, the DPD program was highlighted as a model program for its outstanding faculty development. The outcomes from the seminar on OSU's campus have been significant. Seminar evaluations indicate that participants experience significant personal and professional development around issues of power and privilege. Many have become outspoken advocates for diversity in their units and on campus. Many have developed and taught DPD courses. Another important outcome has been the development of a common language on campus to talk about difference, power, and privilege. Additionally, OSU has become a nationally recognized leader in faculty development and curriculum transformation around DPD issues. The program has been highlighted in publications by the Association for American Colleges and Universities; former directors and DPD faculty have presented at national conferences such as AAC&U's diversity conference and the National Conference on Race and Ethnicity in Higher Education, and the former director who is PI on this proposal has facilitated DPD seminars on campuses all around the country.

The DPD model will be the innovation and centerpiece of OREGON STATE ADVANCE. Currently, the seminar is configured to prepare faculty members to develop and teach DPD courses. While that seminar will continue as usual, this project will allow us to reconfigure the seminar to speak directly to issues within STEM/SBS. In particular, the ADVANCE STEM/SBS DPD seminar will offer a specialized examination of systems of oppression theories as they relate to STEM/SBS. Participants should develop a higher level of awareness and understanding of relational power and how that is connected to structures within STEM/SBE at OSU, develop a greater appreciation of what is involved in building authentic alliances across difference, and gain motivation to engage in the transformation of institutional culture. We will offer two ADVANCE DPD summer seminars per year specifically for STEM/SBS faculty and administrators. All STEM/SBS department heads/chairs will be expected to participate in the seminar.

INSTITUTIONAL COMMITMENT AND SUSTAINABILITY

As demonstrated by the letters of commitment, administrators at OSU, ranging from the President and Provost to the deans of the STEM colleges, support OREGON STATE ADVANCE. In October, the PI and two co-PIs and the DPD director led a DPD seminar for a joint retreat of the President's Cabinet and Provost's Council, and will further lead three sessions of the university's Leadership Academy for department heads, chairs, and directors. Additionally, a number of administrators serve on the internal advisory group and have been closely involved with the development of this proposal and are committed to the sustainability of effective programs, policies, and structural changes. The DPD program is already a long-standing university program housed in Academic Affairs with the Director reporting to the senior vice provost, and the university is committed to continuation of the program and supportive of the refinement of the content to target STEM disciplines. The PI has committed to edit the ADVANCE journal for two years beyond the grant period with support from OSU's Libraries. The university has already committed to many programs that ADVANCE initiatives encompass, such as work/life balance, search committee training, and participation in a regional HERC. However, these initiatives are in their beginning stages at OSU and need to be fully embedded in the institution through the proposed ADVANCE activities. Sustaining ADVANCE efforts will be an extension of these existing commitments and a continuation of fruitful new initiatives. As activities of the grant are assessed, the PIs will provide

information about what is successful. They will also provide administrators with a summary of the final assessment and recommendations for continued activities beyond the grant period.

ACTIVITIES DESCRIPTION

An October article in the *New York Times Magazine* asks why science remains an “old boys’ club.” The author argues from current research on women in science, as well as anecdotal evidence from women scientists she interviewed, that women’s status is impeded by cultural assumptions about women and stereotypes that limit women’s access to professorships in science. Women scientists receive lower salaries and fewer resources than their male peers, and that too creates barriers to women scientists’ advancement in the academy (Pollack, 2013). These are the exact conditions OREGON STATE ADVANCE will address by offering a direct challenge to cultural assumptions and stereotypes through its grounding in theories of systems of oppression. Research suggests that education about issues of difference can change attitudes and behaviors (Roberson, et al., 2009; Sanchez and Medkik, 2004; Hanover and Cellar, 1998; Kulik, et al., 2007; Majumdar, et al., 2004). OREGON STATE ADVANCE will center educational experiences focused on theories that make sense of systems of oppression and offer alternative visions of equity in the academy, even as it provides support for individual STEM/SBS women and creates needed structural change through the implementation of new policies and procedures.

Theories of systems of oppression understand institutions, such as OSU, as places within larger intersecting systems of sexism, racism, classism, heterosexism, ableism, and ageism that reproduce and maintain hierarchies based on differences of gender, race, class, sexual identity, etc. The ideologies and institutional structures that sustain oppression are often invisible, particularly to those who hold social advantage based on gender, race, class, etc., and yet they produce concrete consequences that maintain power and privilege in the hands of the dominant group (Hill Collins, 1993; Pharr, 1988; McIntosh, 1989). So, for example, we would assume that the hiring, promotion and tenure processes at universities are neutral and based solely on merit, but the assumption of neutrality masks power relationships based on privilege. Power brings unequal distribution of tasks and rewards (starting salary, course reductions for research, start-up funds/travel funds, research assistance, service expectations). Research suggests that subtle and hidden barriers that result from systems of oppression affect hiring and promotion of women faculty in general and women of color faculty in particular (Evans and Chun, 2007). These barriers are even more evident at research extensive universities, like OSU (Wilson, 2004). In 2012 at OSU women were 34% of all tenure-line professors but only 20% of STEM faculty (excluding SBS). Representation of women across the STEM fields ranged from a low of 15% in Engineering and Chemistry to a high of 41% in Math/Statistics. When looking at faculty across the ranks, women are: 41% of all assistant professors but 28% of STEM assistant professors; 36% of all associate professors but 23% of STEM associate professors; and 27% of all full professors but 20% of STEM full professors.

One of the consequences of privilege for those in the dominant group is that one is able to experience one’s own perspectives and experiences as normal and “human” rather than gendered or racialized. One is then able to function rather easily out of this perspective, assuming that one’s behaviors reflect generic human behavior (Johnson, 2005). For members of the subordinate group, however, the experience of multiple barriers that are not accidental or incidental but are systematic and interrelated means that options are limited and movement is restricted (Frye, 1983). This system of barriers is complicated by the intersections of various forms of difference, which are not simply additive but give shape to individual and groups’ experiences of oppression (Hill Collins, 1993; Pharr, 1988). So, for example, Black women will have a different experience of sexism than white women. These experiences are also made more complex with considerations of social class and sexual identity. The issue, however, is not one of seeing the situation as made “worse” by these intersecting oppressions. Refusing to rank oppressions or create hierarchies of oppression is essential to dismantling oppressive systems (Lorde, 2009). Attention to differences among women is central to the work of systemic transformation.

This perspective informs every aspect of OREGON STATE ADVANCE. Achieving institutional transformation within this theoretical context means working to shift power relations and restructure institutional arrangements by disrupting the invisibility of power and privilege and building egalitarian structures that change the ways people interact—from the hiring process to promotion and tenure to advancement of women into leadership. Research suggests that successful institutional transformation must target the “mechanisms that produce inequality,” as well as address the needs of individual women (Morimoto, 2013). This “deep” change includes both efforts to support individual women as well as change to the ideologies and structures operating in the institution.

Goal and Objectives. The goal of OREGON STATE ADVANCE is to transform the institution’s climate and structures, and promote more positive and affirming interpersonal interactions, in order to create an equitable and just workplace for women and others from traditionally underrepresented groups. Three major objectives will guide our work:

(1) Recruit, retain, and promote more women STEM/SBS faculty across the majority of OSU’s Colleges by building upon established initiatives and implementing new policies and programs that will lead to a significant increase of women faculty at OSU.

(2) Recognize the importance of gender’s intersections with race/ethnicity, social class, sexual identity, and other axes of oppression in affecting women’s lives, including their professional experiences within academia, and situate this understanding as a central component in our efforts to transform the institutional culture.

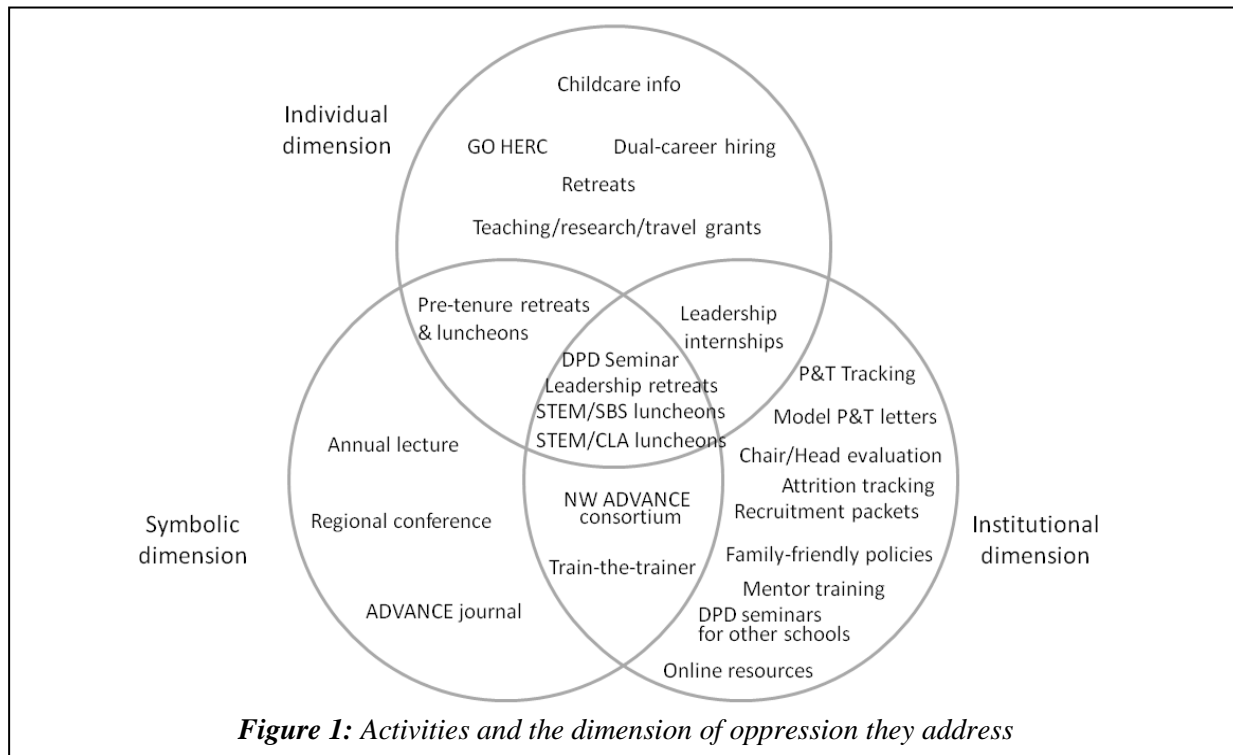
(3) Adapt and offer OSU’s Difference, Power, and Discrimination faculty development program to provide tailored educational opportunities for STEM/SBS faculty and administrators.

Systems of oppression are structured along three dimensions: the individual, the symbolic, and the institutional (Hill Collins, 1993). The individual dimension has to do with how gender, race, class, etc. frame our personal biographies and the ways we participate in institutions and relationships. The symbolic dimension acknowledges the impact of ideologies, especially as they take shape in language and stereotypes, in reproducing hierarchies. Finally, the institutional dimension names the systematic ways social institutions, such as higher education, structure relationships in order to maintain power and privilege or confer subordination (Hill Collins, 1993). Each activity of OREGON STATE ADVANCE addresses one or more of these dimensions with the goal of disrupting systems of oppression by challenging them at individual, symbolic, and institutional levels (Figure 1).

Our approach is two-pronged: those activities that seek to create deep and long-lasting institutional change with the DPD seminar as center-piece, and those activities that provide immediate support for STEM/SBS women. Proposed activities in addition to the ADVANCE STEM/SBS DPD seminar come from two years of discussion with an internal advisory group of about 40 STEM/SBS faculty. These activities are in response to the needs for support they identified. They are also informed by our understandings of OSU as an institution within systems of oppression and therefore seek to change social and institutional relations to create an equitable and just university. Finally, they also reflect many of the faculty needs identified by prior ADVANCE research: professional development opportunities for faculty and administrators, community-building activities that create meaningful relationships, and institutional support for dual career couples, career flexibility, and work-life balance (Laursen and Rocque, 2009; Marshke, et al., 2007). Each grant-supported activity is connected to strategies for dismantling oppression and will provide opportunities for participants to enhance their understanding of the workings of these systems at OSU and the transformative possibilities for restructuring the institution. Although the supporting activities we propose are varied and numerous, many of them build on current OSU initiatives and advance local efforts that are already underway. This will enable us to put effort into adding new activities to further support for STEM women and improve the climate for women, across their

differences, throughout the institution. The timeline for these activities follows their description (see Table 3).

Many of our initiatives will include both women and men. Developing men's awareness of and commitment to social equity is a key component of institutional transformation (Bystydzienski and Schacht, 2001; Johnson, 2005; Johnson, 1997; Stoltenberg, 1995), so men will be able to participate in many of the educational opportunities, such as the DPD seminars, pre-tenure faculty retreats, workshops, and a regional retreat. Specific attention in these activities will be given to alliance-building. Faculty and administrators from non-STEM disciplines, such as the professional schools of public health, veterinary medicine, and pharmacy, will be invited to participate in activities at no cost to the grant. For transformation to be truly institutional, the inclusion of a wide group of participants is necessary.



The DPD Seminar. The core activity and innovation for this transformation is the adaptation of the DPD seminar for STEM faculty and administrators. The DPD seminar has a long and successful history at OSU. Through readings, lectures, films, discussions, and experiential activities, this 60-hour seminar introduces theories of systems of oppression. It also asks participants to engage in personal reflection about their own location in relation to power and privilege, and it challenges them to examine how their disciplines have been constructed in ways that reproduce hierarchy and dominance. It further provides opportunities to explore structural inequities within the university and to imagine a transformed future in which institutional structures and personal behaviors are both professionally and personally life-affirming for all people across their differences. Specifically, the seminar addresses the need for ideological changes across the university by challenging the dominant gender paradigms and offering alternative ideologies of gender equality (Morimoto, 2013). The centrality of intersectionality in the seminar also addresses the concerns expressed in our focus groups about the need for attention to differences among women. OREGON STATE ADVANCE will adapt the seminar to address directly issues of power and privilege within STEM disciplines. We will offer the STEM DPD seminar twice each summer at the end of years 1-4. Each seminar will be limited to 15 participants to allow for group interaction and community-building. We will use assessments of each seminar to refine and improve the seminar.

As past assessments of the DPD seminar have indicated, participants experience both personal and intellectual transformation through their encounter with the information, experiential learning activities, and one another. In particular, the seminar will address the concerns raised by participants in focus groups for consciousness-raising around issues of the intersections of gender with race, sexual identity, nation of origin, social class and disability. The goal for participants is to develop greater understandings of systems of oppression, to develop empathy for individuals and groups different from themselves, to become empowered to engage in positive and affirming relationships across differences, and to gain skills and strategies to make structural changes within their scope of influence at the university.

The DPD seminar addresses all three dimensions of oppression (Hill Collins, 1993). Its attention to personal biography, consciousness-raising, and individual empowerment has a profound effect on individual participants as they develop an understanding of themselves as actors within systems of oppression, sometimes in positions of subordination, sometimes in positions of dominance. This knowledge also often leads to new degrees of empathy with others who are different from oneself as participants hear one another's stories and see firsthand the impact of oppression. On the symbolic level, the seminar challenges the very language we use and unveils the role of language in maintaining systems of privilege. It also devotes time to dismantling stereotypes and disputing ideologies (which are often invisible) that underlie systems of oppression. Finally, within the institutional dimension, the seminar offers critique of social institutions from the perspective of systems of oppression theories and facilitates the development of concrete strategies and plans of action for structural change within the institution.

The power of the seminar for institutional transformation comes from its "sensemaking" of personal experiences of discrimination within institutions. Literature on general institutional transformation suggests that sensemaking is an important factor in successful transformation. Researchers have found a number of effective strategies for institutional change in higher education: solid administrative leadership; collaboration; good communication; engaging vision; long-range orientation; and support strategies (Cowan, 1993; Kaiser and Kaiser, 1994; Roberts, et al., 1993; Taylor and Koch, 1996). What makes these strategies effective is that they make sense of change for constituents (Kezar and Eckel, 2002). Sensemaking allows people to construct and accept significant new understandings of the institution and then act in ways that are consonant with the new understanding (March, 1994; Weick, 1995; Smircich, 1983; Gioia, et al., 1996). People make sense of power through ideologies they already bring to the seminar from their own social locations. By using systems of oppression theories as a consistent thread throughout the project, we can help faculty and administrators make a different kind of sense of the experiences of women and other diverse populations at OSU and provide ways to help them act (personally and institutionally) that reflect the sense they have made of the situation (Philip, 2011; Hall, 1996). Kezar (2013) also argues that "sensegiving" is essential for transformation. Sensegiving moves beyond sensemaking to institutionalize change by influencing outcomes, communicating thoughts about change to others, and gaining support. Beyond the sensemaking of the DPD seminar, further activities will enhance sense-giving by broadening the influence of the seminar as participants serve as agents of change, and by having impact on the broader community, as systems of oppression theories permeate the shape, outcomes, and assessments of the other activities.

Recruitment and Advancement Activities. These activities address primarily individual dimensions of systems of oppression in the ways STEM/SBS women participate in the institution. In particular, they seek to change some of the systemic gendered and racialized problems in hiring, retaining, and advancing women (McNeeley and Vlaicu, 2010; Rosser and Taylor, 2009; Evans and Chun, 2007; Rosser, 2004). These activities also center intersectionality as a way to hire and advance more women of color (Towns, 2010). As these become part of OSU's organizational structure, they will also have impact in the institutional dimension of oppression. These activities include: (1) recruitment packets with information important to diverse women including information about work-life balance practices, the general community, and opportunities for employment for significant others; (2) model P & T letters to external reviewers that include explicit verbiage reflecting the value the university places on differing career paths

and diverse contributions; (3) childcare support information and advocacy (identified as a critical need at OSU) including the collection of data regarding childcare needs and challenges that can be used to clearly outline issues and potential solutions for university leadership; (4) collaboration with Oregon HERC and advancement of the current Dual Career Hiring Initiative to improve dual-career hires, an issue of special concern in the small town of Corvallis that does not naturally offer the multitude of job openings present in larger cities;

Educational Activities. These activities address the symbolic dimension of systems of oppression and further the sensemaking of the summer DPD seminar. By introducing a wide variety of audiences to DPD concepts through these activities, this educational component challenges existing ideologies and stereotypes and offers alternative and inclusive understandings of the relationships of power, and privilege in STEM. These activities include: (1) annual renowned woman scientist lecture addressing both the speaker's expertise and her experiences of difference in STEM providing meaningful role models for STEM faculty and outlining differing successful career paths; (2) annual half-day campus ADVANCE workshop to provide the community with updates, offer DPD education, and receive input on improving project success; (3) workshop for administrators on applying DPD principles to administration (in Years 2-5) designed to keep administrators engaged after they have participated in a DPD seminar and to generate specific sets of action items that will ensure that the theoretical framework covered in DPD seminars can be effectively put into action; (4) regional conference planned in Year 5 as a 3-day event that will draw ~50 participants from the Pacific Northwest to present on topics related to enhancing faculty success and improving the climate for diverse populations in STEM/SBS. This activity is also a primary dissemination tool and is geared towards the communication of successful practices at different institutions.

Mentoring Activities. Mentoring activities primarily target the individual dimension of oppression. These activities help individual women move forward in their careers by developing knowledge and skills necessary for success and by providing consciousness-raising around gender and other forms of difference. These activities also address needs identified by both OSU women STEM/SBS faculty and previous ADVANCE projects. As mentoring becomes embedded within STEM, these activities will also affect the institutional dimension of oppression by changing organizational structures. Mentoring has been shown to be an effective strategy in helping to address issues of advancement for women (Buch, et al., 2011; Bilimoria and Liang, 2011). Mentor training will center on understanding mentoring within systems of oppression, and these mentoring activities will help address some of the inequities embedded in institutional structures, even as other portions of the project, particularly the policy and procedure activities, attempt to change these structures. Mentoring will also center intersectionality in content, processes, and feedback. These activities include: (1) annual Provost's retreat for pre-tenure STEM/SBS faculty to build alliances between men and women around shared values of institutional citizenship (Sturm, 2006); (2) retreats for STEM/SBS women faculty in Years 2 through 5 including a one-day writing retreat to enhance success in publication and a one-day leadership retreat to help STEM/SBS women develop as leaders; (3) mentor training for senior STEM/SBS professors and administrators to help them become more effective mentors; (4) leadership internships for STEM/SBS women that involve a term-long opportunity to work in an administrative unit (e.g. Dean, Provost) to gain an increased understanding of the inner workings of university leadership and administration.

Policy and Procedure Activities. These activities focus on the institutional dimension of oppression. They are designed to change institutional structures. Feedback from tracking systems will be used to identify problems and improve processes in order to enhance women's success. These systems will pay specific attention to intersections with race, sexual identity, ability, social class and nation of origin. These activities include: (1) additional family friendly policies such as telecommuting opportunities, floating parking passes that can be used by faculty who have intermittent family responsibilities, and other creative ideas that will be generated through out the project period to enhance inclusiveness and efficiency; (2) system for tracking composition of P & T committees by gender to arrive at a data set that

can be used to argue for change (if necessary); (3) guidelines for central administration to use when evaluating deans'/chairs' contributions to diversity efforts and mentoring practices, as a means to increase accountability across campus; (4) attrition tracking system and exit interviews to identify circumstances surrounding the decision to leave OSU; (5) tracking system for promotion and tenure process, including annual reviews and third year review to gather information about the effectiveness of current practices across campus units, with specific attention to common practices as well as differences.

Community-Building Activities. Community-building activities address all three dimensions of oppression. Community-building is an important part of dismantling systems of oppression as people move closer across their differences, challenge stereotypes, and build common goals in effecting change (hooks, 2003). These activities will bring OSU STEM/SBS and other faculty together in productive ways to support one another, find common ground, and facilitate collaborations, including those to effect structural change at OSU. These activities include: (1) quarterly President's lunches to foster community, encourage collaborative efforts, and explore DPD concepts as applied in STEM/SBS; (2) quarterly STEM/Liberal Arts meetings for transdisciplinary conversations and collaborations across the sciences, social sciences, and humanities to further connect STEM/SBS women faculty with their counter-parts in Liberal Arts (e.g. through cross-cutting considerations such as humanitarian engineering and environmental justice); (3) Northwest ADVANCE consortium in Year 2, envisioned as a 3-day off-campus conference with invited participants from universities and colleges in neighboring states (those without prior, formal ADVANCE initiatives) to inform and educate participants about the OSU ADVANCE program and inspire them to follow our progress and advocate for the implementation of successful strategies on their campuses; (4) the establishment of a peer-reviewed online, open access ADVANCE journal to publish findings from OREGON STATE ADVANCE and other ADVANCE projects across the nation (further explained below), as well as other relevant research on women and other underrepresented populations in STEM/SBS.

Social Science Research. The research described in the additional 5-page proposal, aims to demonstrate that shifts toward more positive and affirming interpersonal interactions will occur when people develop a critical consciousness (Freire, 1993). Fostering this sort of critical awareness is especially important for transforming the climates at predominately white institutions where lived experiences of faculty of color, LGBTQ faculty and faculty with disabilities often remains invisible to those in the dominant paradigm. Our ADVANCE grant gives us the opportunity to adapt and refine the current content and pedagogy of the DPD seminar to provide such a learning experience for STEM faculty, and this leads to our primary research question: Will participating in the DPD seminar empower and motivate institutional leaders and faculty members to actively contribute to campus climate transformation (through improving their interpersonal interactions)?

Table 3. Timeline for proposed activities, including responsible persons.

Year One

CATEGORY	ACTIVITIES	PERSON(S)
Recruitment & Advancement	1. Childcare info	Project Manager (PM)
Education	1. Develop DPD seminar; 2. Train DPD seminar leaders; 3. Two DPD summer seminars; 4. Annual lecture; 5. Annual workshop	PI, co-PIs, DPD director
Mentoring	1. Provost's pre-tenure retreats	PM, PI, co-PIs
Policy & Procedure	1. Family-friendly policies; 2. Recruitment packets; 3. Model P & T letters	PI, Senior Vice Provost (SVP)
Community-building	1. STEM/Liberal Arts meeting; 2. President's luncheon 3. Web site	PM

Year Two

Recruitment & Advancement	Recruitment packets	PM
Education	1. Two DPD summer seminars; 2. Annual lecture	PI, co-PIs, DPD director
Mentoring	1. Pre-tenure retreat; 2. Writing retreat; 3. Online mentoring	PI, co-PIs, PM
Policy	1. Administrator guidelines	SVP, PI
Community	1. NW consortium; 2. STEM/CLA meetings; 3. Social Media	PM

Year Three

Recruitment & Advancement	Model P & T letters	PM
Education	1. Two DPD seminars; 2. Annual lecture; 3. Administrator workshop	PI, co-PIs, DPD director
Mentoring	1. Pre-tenure retreat; 2. Mentor training; 3. Leadership internship	PI, co-PIs
Policy	1. Attrition tracking system/exit interviews	SVP, PI
Community	1. STEM/CLA meetings	PM

Year Four

Recruitment & Advancement	Collaboration with GO HERC and dual career hiring initiative	PM
Education	1. DPD seminars; 2. Annual lecture; 3. Technology apps for dissemination; 4. Development of train-the-trainer institute	PI, co-PIs, DPD director, PM
Mentoring	1. Pre-tenure retreat; 2. Writing retreat	PI, co-PIs
Policy	1. P & T tracking system	SVP, PI
Community	1. STEM/CLA meetings	PI, co-PIs, PM

Year Five

Recruitment & Advancement	Leadership retreat	PM
Education	1. Annual lecture; 2. Train-the-trainer institute; 3. Online support resources; 4. Advertisement for DPD leaders to other campuses; 5. Admin. workshop	PI, co-PIs, DPD director, PM
Mentoring	1. Pre-tenure retreat; 2. Writing retreat; 3. Mentor training	PI, co-PIs
Policy	1. Others as identified through project assessment	SVP, PI
Community	1. STEM/CLA meetings; 2. Regional conference; 3. Online ADVANCE peer-reviewed journal	PM, PI, Co-PIs

DISSEMINATION

To ensure widespread and effective dissemination of knowledge created by OREGON STATE ADVANCE, we will: (1) make available OREGON STATE ADVANCE individuals or teams who can offer the DPD seminar or DPD administrators workshop on other campuses; (2) develop a summer “train-the-trainer” institute to which other institutions can send campus leaders to learn how to lead the DPD seminar; (3) develop an online support program and resources for DPD seminar graduates; (4) develop an online peer-reviewed, open access ADVANCE journal which will be of great value to ADVANCE as a whole, providing a unique forum for dissemination of NSF’s 10+ year investment in gender equity; (5) coordinate the development of a Northwest Consortium of ADVANCE institutions to share ideas, experiences, and evaluations; (6) develop an OREGON STATE ADVANCE website that will be updated as project initiatives are launched and evaluated; (7) present OREGON STATE ADVANCE findings at conferences such as the Association of American Colleges and Universities, the National Women’s Studies Association, and the American Society for Engineering Education; (8) submit articles to high quality peer-reviewed journals; and (9) host a regional conference. The conference will focus on effective

strategies for transforming institutions to improve the climate for diverse people and to enhance faculty success.

INTELLECTUAL MERIT

Theorists have developed a well-defined understanding of systems of oppression. OREGON STATE ADVANCE offers the opportunity to operationalize these theories within an effort to transform an institution through changing behavior, relationships, policies, procedures, and structures. Additionally, researchers have found that “sensemaking” activities further institutional transformation. This project will examine the impact of using systems of oppression theories as a way of helping administrators and faculty make sense of the ways difference, power, and privilege construct institutional experiences, disadvantaging women in STEM/SBS fields. Additionally, the project will assess the effects of making sense of systems of oppression on the actual transformation of OSU and an improved climate for women in STEM/SBS. The project grows very specifically out of OSU’s particular context with its long history with the DPD program and its ongoing efforts to improve campus climate for diverse populations. In many ways the ADVANCE project will be an extension of current initiatives, but the grant will allow a significant enhancement and growth of OSU’s commitments to institutional transformation. OSU is both ready to embark on this transformative journey and to sustain successful elements beyond the grant.

OREGON STATE ADVANCE’s focus on transforming an institution by applying systems of oppression theories offers a new and creative possibility for ADVANCE projects by providing an overarching theoretical framework that may both explain the problems STEM/SBS women face and offer indications toward successful strategies for change. Because systems of oppression theories contextualize individual behaviors within systems, ideologies, and institutions, this project moves beyond implicit bias training and additive programs for women by providing a way forward in restructuring the institutional context itself by centering difference in the ways OSU constructs itself and operates on a daily basis—both at the institutional and individual levels. This project will help answer the question: what happens when institutional leaders and faculty members develop a complex and nuanced understanding of systems of oppression, particularly when applied to higher education? Does this application of theory improve the work lives of women in STEM/SBS? The answers to these questions would provide an important contribution to the ADVANCE Institutional Transformation knowledge base.

BROADER IMPACTS

While OREGON STATE ADVANCE grows from OSU’s specific context, the activities proposed are very likely to suggest directions for future institutional transformations at other universities. Our clear focus on intersectionality will add greater detail about diverse women to ADVANCE knowledge and can help bring attention to these diverse populations of women to the fore. Centering intersectionality can help move the national conversation about women in STEM/SBS to more carefully nuanced understandings of the complex academic lives of women across their differences. In very tangible terms, the availability of OREGON STATE ADVANCE individuals and teams to lead DPD seminars at other institutions and the provision of summer institutes and online support resources offer an opportunity for widespread influence for the project. Additionally, the development of a peer-reviewed online, open access ADVANCE journal will create space for wide dissemination of ADVANCE findings, as well as other significant research on women and other underrepresented groups in STEM/SBS.

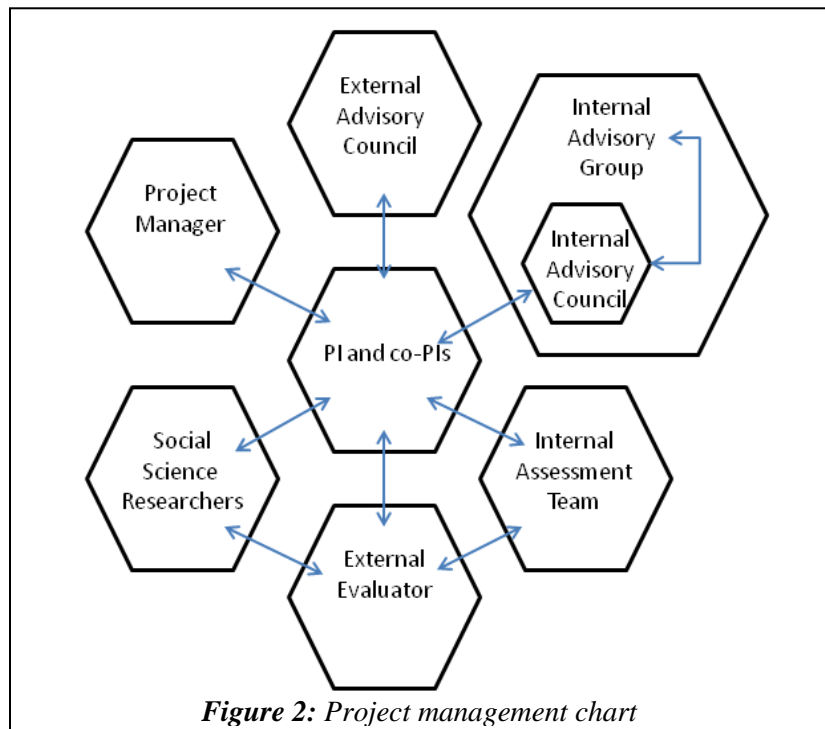
PROJECT MANAGEMENT

OREGON STATE ADVANCE will hire a fulltime project manager to oversee the daily operations of the project, and the project will be situated in the Provost’s office, with a direct reporting line to the Senior Vice Provost, who is a co-PI on the project. The PI and co-PIs will be directly involved in developing and implementing most aspects of the project, and the PI will provide guidance for the project manager. The PI, co-PIs, social science researcher, and outside evaluator as a team reflect the values of the project. The team is diverse in terms of race, ethnicity, gender, sexual identity, and disability status. Academic disciplines for the team include Women, Gender, and Sexuality Studies, Sociology, Psychology,

Bioengineering, and Oceanic Sciences. The PI and one co-PI have served as directors of the DPD program and led the DPD seminar numerous times. The PI and three of the co-PIs have participated in a DPD summer seminar. Additionally, the PI has led DPD seminars on other campuses throughout the nation and presented extensively on the DPD program at national conferences. The project will also be supported by an internal advisory group, a small internal advisory council, and an external advisory council (see Figure 2). All of these groups are made up of diverse members—women of color, women with disabilities, lesbian, queer, and transgender women, women from poor or working class backgrounds—reflecting the intersectional aspirations of the project.

The internal advisory group is a diverse group (including men who have a demonstrated commitment to cultural transformation) of 40 faculty members, deans, associate deans, and chairs/heads/directors from nine colleges. This group has been meeting with the PI and co-PIs over the past two years and has had much input into the project design. They will continue to meet quarterly to provide feedback.

The internal advisory council is: Stella Coakley, Associate Dean, College of Agriculture; Lisa Gaines, Director of the Institute for Natural Resources; Kate Hunter-Zaworski, Professor of Civil and Construction Engineering; Janet Lee, Professor of Women, Gender, and Sexuality Studies; Brenda McComb, Dean of the Graduate School and Professor of Forestry; Virginia Weis, Professor and Chair, Zoology; and Sandy Woods, Dean of the College of Engineering. This group will help oversee the implementation of the project, help keep the project on time and on track, and help resolve any issues that might arise throughout the project.



The external advisory council is: Jill Bystydzenski, Women, Gender, and Sexuality Studies, Ohio State University; Kelly Mack, Executive Director of Project Kaleidoscope, Association of American Colleges and Universities (AAC&U); Regina McClinton, Director, Institute for Intercultural Teaching and Learning, Grand Valley State University; Caryn McTighe Musil, Senior Scholar and Director of Civic Learning and Democracy Initiatives, AAC&U; Britt Raubenheimer, Associate Scientist, Woods Hole Oceanographic Institution; Jamie Ross, Women, Gender and Sexuality Studies, Portland State University; and Sue Rosser, Provost, San Francisco State University.

The social science research will be conducted by Dwaine Plaza, Professor of Sociology, and Michelle Bothwell, co-PI. Dr. Plaza teaches quantitative and qualitative research methods and conducts research on race/ethnicity and gender in the Caribbean. He is a program faculty member in Women, Gender, and Sexuality Studies and is chair of the OSU Faculty Senate Diversity Committee. He has also taught DPD courses in Sociology.

Dr. Mariko Chang will serve as external evaluator. Dr. Chang is a sociologist who has served as external evaluator to several ADVANCE grants and on several ADVANCE review panels and site visit teams. She

will work with the Internal Evaluation Team, led by Denise Lach, Professor of Sociology and Director of the School of Public Policy, to conduct assessments throughout the project. Other team members are Toni Doolen, Professor of Industrial and Manufacturing Engineering and Dean of the University Honors College; Nancy Russo, Courtesy Faculty in the School of Psychological Science; and Bill Bogley, Professor of Mathematics and former Director of Assessment.

PROJECT EVALUATION

The external evaluation will incorporate both quantitative and qualitative methods. Formative evaluation will commence immediately and continue throughout the grant, providing feedback to refine activities and better measure the impact of program activities on objectives, improve communication among stakeholders, and address challenges as they arise. A final summative evaluation will occur in Year 5 to evaluate how well the project has met its goal, including the institutionalization of successful activities and dissemination of results. The evaluation will be guided by the following questions:

- Is the project being implemented effectively and according to schedule? (i.e., Are the proposed activities being undertaken? Are major benchmarks being met?)
- Are data being collected to provide baseline measures of desired outcomes and track progress toward project goals? (i.e., Are appropriate metrics being developed? Are the data being collected sufficient for measuring project outcomes?)
- How well has the project reached its goals? Are successful activities and policies being institutionalized? (i.e., Have goals been reached? What is the evidence for institutional change? What is the evidence that any changes are the result of the project activities?)
- How effectively have results been disseminated to a broader audience? (i.e., Are results being accepted for publication in scholarly and professional journals? Are results disseminated to other institutions?)

An overview of sample goal-specific evaluation questions, benchmarks, indicators, and evaluation methods for each program goal and activity is provided in Table 4. Upon successful funding, Dr. Chang will work with the Internal Evaluation Team to create a logic model and evaluation plan to establish more detailed evaluation questions and indicators.

Table 4. Program goals, activities, evaluation questions, benchmarks, indicators, and evaluation methods

Program Activities	Sample Evaluation Questions	Sample Benchmarks and Possible Indicators	Data, Evaluation Methods
Objective 1: Hire, retain, and promote more women STEM/SBS faculty by building upon established initiatives and implementing new policies and programs that will lead to a significant increase in women faculty at OSU			
Recruitment and Advancement Activities	<ul style="list-style-type: none"> • What is the impact of the recruitment and advancement activities upon the hiring, retention, and promotion of women STEM/SBS faculty? 	<ul style="list-style-type: none"> • % of STEM/SBS women faculty increases • % of STEM/SBS women faculty promoted • % of faculty using family-friendly policies 	Institutional data on new hires, promotion, and distribution of faculty by dept, rank, and sex
Policy and Procedure Activities	<ul style="list-style-type: none"> What factors affect impact? • To what extent do the policy and procedure activities support the hiring, retention, and promotion of women STEM/SBS faculty? 	<ul style="list-style-type: none"> • % of women and other marginalized groups on P & T committees 	Interviews/ focus groups with faculty, chairs, deans, administrators
Community-Building Activities	<ul style="list-style-type: none"> • Does the university culture support the use of family friendly policies? • Are community-building activities increasing cross/trans-disciplinary work? 	<ul style="list-style-type: none"> • Administrators report holding deans and chairs accountable for their contributions to diversity • Faculty report new cross- and trans-disciplinary collaborations as a result of 	Data on P & T composition STEM/SBS-wide electronic survey

		community-building activities	
Objective 2: Recognize the importance of gender’s intersections with race/ethnicity, social class, sexual identity, and other axes of oppression in affecting women’s lives, including their professional experiences within academia, and situate this understanding as a central component in our efforts to transform the institutional culture			
Mentoring Activities	<ul style="list-style-type: none"> • In what ways do mentoring activities improve the retention and promotion of women STEM/SBS faculty? • What is the impact of the educational activities on faculty and administrator understanding of the axes of oppression affecting women and their willingness to transform the culture at OSU? 	<ul style="list-style-type: none"> • STEM/SBS women faculty report receiving mentoring that meets their professional needs • Administrators report using DPD workshop principles to transform institutional culture • Attendees of educational activities report learning how axes of oppression impact STEM women’s experiences 	Interviews-faculty, admin, mentors, mentees
Educational Activities			Evaluation forms--retreats, trainings, workshops, and conferences
			Focus groups with sub-populations of STEM/SBS women faculty
			STEM/SBS-wide electronic survey
Objective 3: Adapt OSU’s Difference, Power, and Discrimination (DPD) faculty development program to provide tailored educational opportunities for STEM faculty and administrators			
DPD seminar for STEM administrators and faculty	<ul style="list-style-type: none"> • Do seminars help participants develop greater understandings of systems of oppression and their own location in the hierarchy of power and privilege? • Do participants use knowledge or skills learned to act to reduce structural inequities at OSU? 	<ul style="list-style-type: none"> • Participants report using knowledge or skills learned at the seminars to reduce inequities experienced by women in STEM/SBS at OSU 	Interviews or focus groups with DPD seminar participants
			Seminar evaluation forms
Social Science Research			
	<ul style="list-style-type: none"> • How well does the PDP seminar motivate participants to contribute to campus climate transformation? • Are findings being used to inform ADVANCE programming? • Are findings disseminated? 	<ul style="list-style-type: none"> • Participants report gaining awareness of relational power and take action to foster positive and affirming faculty interactions across difference • Participants report being better equipped to navigate negative professional interactions and structural barriers • Team reports using findings to guide programming 	Interviews with DPD seminar participants
			Surveys & diaries completed by DPD participants
			Presentations & publications

SUMMARY

OREGON STATE ADVANCE seeks to transform institutional climate through fostering critical consciousness, altering institutional structures, and cultivating positive interpersonal relationships that

value difference. Through the focused educational opportunity of the DPD STEM/SBS summer seminar and the activities that support STEM/SBS women across their differences, OREGON STATE ADVANCE will create a more just and equitable workplace for women and other underrepresented minorities. The availability of OREGON STATE ADVANCE educators to offer DPD workshops on other campuses will provide a unique means of dissemination, and our creation of a peer-reviewed, online, open-access ADVANCE journal will create a broad network of dissemination for the work of all ADVANCE projects.