IDEAL

Institutions Developing Excellence in Academic Leadership
Institutions Developing Excellence in Academic Leadership (IDEAL) is a three-year NSF ADVANCE Partnership for Adaptation, Implementation and Dissemination (PAID) project to seed gender equity transformation at five regional public universities in northern Ohio (Bowling Green State University, Cleveland State University, Kent State University, University of Akron, and University of Toledo) and continue the transformation at Case Western Reserve University (CWRU). The goal of this innovative partnership is to create an institutional learning community empowered to develop and leverage knowledge, skills, resources and networks to transform academic cultures and enhance equity and inclusion. IDEAL adapts and disseminates the successful academic leadership development and institutional transformation methods developed by CWRU during its five-year ADVANCE Institutional Transformation initiative. In this brochure, we highlight the institutional transformation themes, specific activities, findings, and sustainability plans for the partnership schools during IDEAL’s first year.

**Objectives and Implementation**

**Objective 1**
Create a regional learning community of academic leaders in northern Ohio that is informed about the factors responsible for the underrepresentation of women and minority groups in academic S&E and committed to transforming institutional cultures in S&E disciplines.

**Implementation:** CWRU has adapted its successful executive coaching program to create a regional learning community among six partner universities using an annual development program consisting of four training sessions and team coaching. The leadership development program specifically addressed the institutional factors that slow women’s advancement in S&E, including unconscious and systemic factors that preferentially disfavor and accumulate disadvantage for underrepresented groups.

**Objective 2**
Develop a cohort of formal and informal S&E leaders at each partner institution to implement, adapt and sustain customized change initiatives on individual campuses.

**Implementation:** Change Leader Teams at each partner institution identified and implemented a change project, and presented their results at the plenary conference. The annual change projects will cumulatively contribute to significant institutional transformation around an issue identified as important for S&E transformation at that university (e.g., recruitment, advancement, climate, resource equity, etc.)

**Objective 3**
Assemble the senior academic leadership of partner universities to disseminate best practices from ADVANCE institutions, exchange regional institutional research, policies and practices, and evaluate change initiatives.

**Implementation:** To reinforce institutional commitment to gender equity change initiatives, the IDEAL plenary conference included senior university administrators with the Change Leader Teams to learn about each institution’s transformation efforts. National guest speakers presented information about gender equity issues in STEM fields. Evaluations indicated that the conference, consisting of a mix of presentations and large and small-group discussions, was an effective exercise. Participants learned about campus commonalities, applied ideas to their own institutional context, and advanced their own projects forward to Year 2.
People Involved

Lynn Singer, PhD  
IDEAL Principal Investigator;  
Professor of Environmental Health Pediatrics and Psychiatry;  
Deputy Provost and Vice President for Academic Affairs, CWRU

Diana Bilimoria, PhD  
IDEAL Co-Principal Investigator; Professor of Organizational Behavior, CWRU

Helen Qammar, PhD,  
IDEAL Co-Principal Investigator; Associate Professor of Chemical and Biomolecular Engineering, Director of the Institute for Teaching & Learning, University of Akron

Amanda Shaffer  
IDEAL Project Director, CWRU

Advisory Board

W.A. “Bud” Baeslack III, PhD  
Provost and Executive Vice President,  
Case Western Reserve University

Byron Clayton, PhD  
Vice President, NorTech

Melissa Cardenas, PhD  
Director, Academic Quality Assurance,  
Ohio Board of Regents

Abigail Stewart, PhD  
Professor of Psychology and Women’s Studies,  
Director of Advance Program at the Institute for Research on Women and Gender, University of Michigan

2010 Plenary Conference Group Discussion

What specific actions can you, your office or your change leader team undertake to advance equity, diversity and inclusion in STEM disciplines on your campus?

Actions

- Improve or enhance faculty mentoring
- Involve and engage senior leadership in advancing equity and inclusion in STEM
- Report findings of climate surveys campus-wide
- Disseminate resources and best practices on family friendly policies and recruiting a diverse candidate pool.

“The IDEAL program provided me the opportunity to develop new tools and perspectives on leadership that have been a great help to me as a department chair in a STEM area. As a recent appointee to a Dean’s position, I am finding the perspectives I learned from IDEAL, and from the other participants in the program, to be especially helpful. Our IDEAL change project was very useful in informing me about issues at my university, and in helping me to think about ways that I might affect some changes through my new role.”

— Karen S. Bjorkman, PhD,  
Dean, College of Natural Sciences and Mathematics,  
Distinguished University Professor of Astronomy,  
University of Toledo

Eric Fingerhut, Chancellor of the Ohio Board of Regents,  
and Lynn Singer, IDEAL Principal Investigator
IDEAL Co-Director
Deanne Snavely, PhD
Professor of Chemistry and
Interim Associate Dean,
College of Arts and Sciences

Institutional Transformation Theme
Build Intellectual Community & Collegiality

Vision
To transform the BGSU educational environment to be open and inclusive of women students and faculty members and to foster the recruitment and retention of female students and faculty.

Year One Project 2009–2010

Change Leader Team
Laura Marie Leventhal, PhD
Professor of Computer Science

Helen Judith Michaels, PhD
Associate Professor of Biological Science

Sheila Jo Roberts, PhD
Associate Professor of Geology

Goals
- Identify specific barriers at BGSU
- Develop strategies for creating opportunities for collegial interactions

Activities
- Conducted climate survey and faculty focus groups spring 2010.
- Raised awareness of potential use of Title IX to increase diversity at BGSU
- Campus visit by Bernice Sandler, May 4, 2010
- Supported efforts of the Faculty Senate to promote change impacting women faculty

Sustainability Plans
- Continue exploring application of Title IX to STEM in higher education
- Disseminate climate survey results on campus during AY 10-11
- Repeat climate survey in AY12-13
- Develop an IDEAL website
- Explore providing a physical space for women faculty to network

Project Accomplishments/Findings
Title IX can be applied to evaluation of women in STEM fields at educational institutions.

Andrew Layden, Year Two Change Leader
Year Two Change Leader Team (2010-2011)

Andrew Layden, PhD
Associate Professor of Physics

Dara Mush-Eisenman, PhD
Associate Professor of Psychology

Margaret (Peg) M. Yacobucci, PhD
Associate Professor of Geology

“Bernice Sandler’s visit to BGSU jump-started our project to build a more inclusive environment for women faculty and students in science and mathematics.”

— Dr. Deanne Snavely, IDEAL Co-Director, Bowling Green State University

Composition for AY 2009-2010 in BGSU’s IDEAL Departments

<table>
<thead>
<tr>
<th>IDEAL</th>
<th>Tenured</th>
<th>Tenure Track</th>
<th>Non-tenure Track</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>16%</td>
<td>18</td>
</tr>
<tr>
<td>Male</td>
<td>59</td>
<td>84%</td>
<td>65</td>
</tr>
</tbody>
</table>

BGSU Year Two Change Leader Team
**IDEAL Co-Director**  
Diana Bilimoria, PhD  
Professor of Organizational Behavior, IDEAL Co-Principal Investigator

**Institutional Transformation Theme**  
Enhancing Collegiality and Inclusion in Science and Engineering

**Vision**  
To improve faculty climate by enhancing collegiality and inclusion via a grass roots movement where all faculty are given the opportunity to contribute recommendations for the process and to benefit from resources arising from implementation of the resulting recommendations.

**Year One Project 2009–2010**

**Change Leader Team**  
Daniela Calvetti, PhD  
Professor and Chair of Mathematics

Kathleen Kash, PhD  
Professor and Chair of Physics

Daniel A. Scherson, PhD  
Professor of Chemistry

**Goals**  
- Identify faculty development needs by career stage in the College of Arts & Sciences (CAS)
- Recommend sustainable mechanisms for addressing those needs

**Activities**  
- Convened faculty (by rank) and department chair caucuses in CAS
- Administered survey based on caucus results to CAS faculty
- Developed best practices and worked with the Dean to develop a feasible and effective plan
- Released recommendations to the faculty

**Sustainability**  
- Create new position of Faculty Development Director for CAS
- Broaden participation among faculty in key roles within the College and the University
- Customize faculty activity reports to reflect expectations at different career stages
- Institute a system of competitive mini-grant programs
- Improve and increase mentoring program and training

**Project Accomplishments/Findings**  
Junior faculty desire for good mentors was mirrored by tenured faculty members’ desire for mentor training.
Partner School Institutional Transformation Projects

Year Two Change Leader Team (2010-2011)

Anurag Gupta, PhD
Associate Professor of Banking and Finance

Erin Lavik, PhD
Associate Professor of Biomedical Engineering

Jagdip Singh, PhD
Professor and Chair of Marketing and Policy Studies

GQ Zhang, PhD
Professor of Electrical Engineering and Computer Science

Improving Faculty Career Development

**STEP 1:** Create grassroots support by involving faculty from the start of the project

- Organize caucuses by career stage

**STEP 2:** Distribute follow-up survey (60% response)

- Hold caucuses and meeting with chairs

**STEP 3:** Compile results of caucuses and surveys

<table>
<thead>
<tr>
<th>Assistant Professor</th>
<th>Associate Professor</th>
<th>Full Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent and candid feedback</td>
<td>Lack of incentives to seek promotion</td>
<td>Perceived lack of recognition for service</td>
</tr>
<tr>
<td>More effective mentoring; multiple mentoring</td>
<td>Loss of momentum after tenure</td>
<td>Request for mentoring training</td>
</tr>
</tbody>
</table>

**Potential Actions**

- Establish Faculty Development Director position
- Institute competitive mini-grants
- Revise Faculty Activity Report by rank
Institutional Transformation Theme
Encouraging Science and Engineering women and under-represented minority faculty to self-diagnose their knowledge of leadership, and gain that knowledge by actively participating in institutional policy-making committees such as the Faculty Senate and Graduate Council.

Vision
Women and under-represented minorities demonstrate greater engagement in leadership activities as a result of changes in policies, practices, and structures that may currently impede such engagement.

IDEAL Co-Director
Paul P. Lin, PhD
Professor of Mechanical Engineering and Associate Dean of Engineering

Year One Project 2009-2010
Change Leader Team
Paul Lin, PhD
Associate Dean of Engineering

Barbara Margolius, PhD
Professor of Mathematics

Kathleen McNamara, PhD
Professor of Psychology

Goals
- Identify factors that are barriers to participation in leadership for women and URM faculty
- Focus on infrastructure (policies, practices, structures) to make engagement in leadership more attractive and feasible

Activities
- Gathered data on representation of women in leadership roles at CSU
- Gathered CSU NSF indicator data and analyzed
- Conducted focus groups of women faculty in S&E
- Raised awareness of barriers to women in leadership in CSU community

Susan Bazyk and Mekki Bayachou, Year Two
Change Leaders
Partner School Institutional Transformation Projects

### Sustainability
- Continue tracking NSF indicators through institutional research
- Establish policies and practices supporting the development and increased engagement of current faculty to build a leadership “pipeline”
- Examine how to improve CSU culture to make leadership attractive to internal candidates

### Project Accomplishments/Findings
Mixed messages are conveyed to women faculty about leadership (i.e., encouraged to take on leadership commitments while these may be detrimental to their career advancement).

<table>
<thead>
<tr>
<th>CSU S&amp;E AY 2009-10</th>
<th>Tenured</th>
<th>Tenure-track</th>
<th>Tenured and tenure-track</th>
<th>Non-tenure-track*</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td>18.9</td>
<td>15</td>
<td>44.1</td>
<td>39</td>
</tr>
<tr>
<td>Male</td>
<td>103</td>
<td>81.1</td>
<td>19</td>
<td>55.9</td>
<td>122</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100</td>
<td>34</td>
<td>100</td>
<td>161</td>
</tr>
<tr>
<td>Non-URM</td>
<td>120</td>
<td>94.5</td>
<td>32</td>
<td>94.1</td>
<td>152</td>
</tr>
<tr>
<td>URM</td>
<td>7</td>
<td>5.5</td>
<td>2</td>
<td>5.9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>127</td>
<td>100</td>
<td>34</td>
<td>100</td>
<td>161</td>
</tr>
</tbody>
</table>

*Includes all full-time instructors and faculty at other ranks not hired to a tenured or tenure-track position

“Participation in the IDEAL project enabled the CSU Change Leaders to identify factors that create barriers to participation in leadership activities. One of our findings suggested that women faculty may be disproportionately represented in low-level service and leadership. As a result, the second-year project team is focusing on how to provide better faculty mentoring and create an inclusive environment.”

— Paul P. Lin, PhD, Professor of Mechanical Engineering and Associate Dean of Engineering, Cleveland State University

Nilufer Dural and Barbara Margolious

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### Year Two Change Leader Team (2010-2011)

**Mekki Bayachou, PhD**
Associate Professor of Chemistry

**Susan Bazyk, PhD**
Professor of Occupational Therapy and Physician Assistant Program

**Nilufer Dural, PhD**
Associate Professor of Civil and Environmental Engineering

IDEAL
IDEAL Co-Director
Mary Louise Holly, PhD
Professor of Teaching, Learning, and Curriculum Studies and Co-Director, Igniting Streams of Learning in Science

Institutional Transformation Theme
Enhancing the Climate for Scholarly and Collegial Community in the College of Arts and Sciences

Vision
A university system that embraces widespread collegiality across a diverse faculty and administration, with an environment that promotes and supports a vibrant community of scholars in pursuit of academic excellence.

Year One Project 2009-2010

Change Leader Team
Carmen Almasan, PhD
Professor of Physics

Andrew Tonge, PhD
Professor and Chair of Mathematical Sciences

Michael Tubergen, PhD
Professor and Chair of Chemistry

Marilyn Norconk, PhD
Associate Professor of Anthropology – link with year 2

Goals
- Design and conduct a climate survey in College of Arts and Sciences (CAS)
- Begin a campus-wide conversation about the Women in Science Committee Report (2009) and IDEAL Project
- Develop an IDEAL website that includes a chair handbook and resources

Activities
- Undertook coalition building with key campus leaders and administrators
Partner School Institutional Transformation Projects

- Created IDEAL website with resources for chairs and faculty
- Conducted climate survey of tenured and tenure track CAS faculty

Sustainability
- Drive campus conversation with future visit from Bernice Sandler
- Disseminate climate survey and focus group data college-wide
- Build partnerships and collaborations across campus and IDEAL partner schools

Project Accomplishments/Findings
Among findings, 80% of the female climate survey respondents were dissatisfied or strongly dissatisfied with the mentoring they receive and the amount of time available for scholarly work.

<table>
<thead>
<tr>
<th>Samples of KSU Climate Survey Results by Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>men</td>
</tr>
<tr>
<td>Mentoring received within the university</td>
</tr>
<tr>
<td>strongly satisfied</td>
</tr>
<tr>
<td>Time available for scholarly work</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Sample = College of A & S: 48 women & 73 men (n = 121, i.e., 41.7% of A&S faculty)

Michael Tubergen and Carman Almasan

KSU Year Two Change Leader Team

Year Two Change Leader Team (2010-2011)

Verna Fitzsimmons, PhD
Associate Professor of College of Technology

Daniel Holm, PhD
Professor and Chair of Geology,

Marilyn Norconk, PhD
Associate Professor of Anthropology
IDEAL Co-Director
Helen Qammar, PhD
Associate Professor of Chemical and Biomolecular Engineering and Director of the Institute for Teaching & Learning.

Institutional Transformation Theme
Faculty Hiring that Makes a Difference

Vision
Our science, engineering and mathematics departments will be recognized on The University of Akron campus for championing the value of diversity in both students and faculty.

Year One Project 2009-2010

Change Leader Team
Edward Evans, PhD
Associate Professor of Chemical & Biomolecular Engineering

Linda Subich, PhD
Professor of Psychology

Claire Tessier, PhD
Professor of Chemistry

Goals
- Create a snapshot of recruitment, hiring and retention using Institutional Research data
- Benchmark data for the University by using relevant NSF indicators
- Interviews search committee chairs to create a profile of recruitment practices
- Interview women hired in last three years and candidates who declined positions to create a profile of UA candidate’s perceptions of hiring practices

Activities
- Conducted search committee chair interviews and proposed improvements from national best practices on IDEAL website www.uakron.edu/itl/IDEAL/
- Conducted candidate/recent hire interviews and proposed improvements from national best practices on IDEAL website
- Compiled demographics of STEM undergraduate students, and gender demographics for regular faculty in STEM departments
- Developed promotional video message about the value of diversity activities in recruitment
Partner School Institutional Transformation Projects

Sustainability
- Continue annual collection of indicator data for dissemination to academic administrators
- Partner with IR to institutionalize data collection and with HR on training for search committees
- Enhance website and link to EEO and Diversity office training pages

Project Accomplishments/Findings
Not all search committees are aware of best practices and the benefits of a diverse applicant pool. A few departments have matched trends in female faculty hires with trends in doctoral recipients.

Year Two Change Leader Team (2010-2011)

Amy Milsted, PhD
Professor of Biology

Judit Puskas, PhD
Professor of Polymer Science and Integrated Bioscience

Mary Verstraete, PhD
Associate Professor of Biomedical Engineering

“We have raised awareness among some deans here at Akron about women’s under-representation in some STEM areas and at the upper levels of the professoriate. How it will translate into changes in recruiting and support actions remains to be seen.”

– Linda M. Subich, PhD, Professor and Associate Chair, Department of Psychology, University of Akron

UA Year Two Change Leader Team

![Graph showing the percentage of male and female faculty in different departments](image)

- Science and Math Faculty Pool
- Science Faculty Nationwide 2006
- UA Science and Math Faculty 2009
- Engineering Faculty Pool
- Engineering Faculty Nationwide 2006
- UA Engineering Faculty 2009
- UA Faculty
IDEAL Co-Director
Penny Poplin Gosetti, PhD
Professor of Educational Foundations and Leadership and Interim Vice Provost for Academic Innovation

Institutional Transformation Theme
Creating a climate for successful retention, tenure, and promotion

Vision
Identify climate and culture factors that contribute to low rates of retention and advancement for women and underrepresented minorities in engineering and the natural sciences and develop and implement transformation strategies to create a climate of support and success.

Goals
- Develop and administer a faculty climate survey
- Raise awareness of the change project and garner support from key campus alliances
- Identify at least three initiatives to address findings from the survey

Activities
- Administered climate survey to the campus community through the Office of Institutional Research spring 2010
- Undertook coalition building and steady communication with key leaders and administrators on campus (Chancellor, Provost, STEMM deans, Faculty Senate, Office of Equity and Diversity, Catherine S. Eberly Center for Women, and numerous others).

Year One Project 2009-2010

Change Leader Team
Karen Bjorkman, PhD
Dean of Natural Sciences and Mathematics, and Distinguished University Professor of Physics and Astronomy

Timothy Fisher, PhD
Chair and Professor of Environmental Sciences

Nancy Collins, PhD
Professor of Medical Microbiology and Immunology
**Sustainability**
- Disseminated climate survey results on campus during AY 10-11
- Conduct focus groups to explore significant concerns from survey data
- Coordinate with the Offices of Equity and Diversity and Institutional Research to repeat climate survey in AY11-12

**Project Accomplishments/Findings**
Climate survey results support the perception that gender makes a difference in the work lives of STEM faculty

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**Year Two Change Leader Team (2010-2011)**

- **Maria Coleman, PhD**
  Professor of Chemical and Environmental Engineering

- **Isabel Escobar, PhD**
  Acting Director of the Catharine S. Eberly Center for Women; Interim Assistant Dean, College of Engineering and Professor of Chemical and Environmental Engineering

- **Cyndee Gruden, PhD**
  Associate Professor of Civil Engineering

- **Brian Randolph, PhD**
  Associate Dean, College of Engineering and Professor of Civil Engineering

“Participating in the IDEAL program has exposed me to discriminatory practices that I didn’t realize still existed. Such knowledge has better prepared me for my new position as a STEM department chair.”

– Timothy G. Fisher
PhD, Professor of Geology, Chair of Environmental Sciences, University of Toledo

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![Gender Differences in Climate Survey Responses chart](chart.png)
ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

“The goal of the NSF-ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce. Creative strategies to realize this goal are sought from women and men. Members of underrepresented minority groups and individuals with disabilities are especially encouraged to apply. Proposals that address the participation and advancement of women with disabilities and of women from underrepresented minority groups are encouraged.”

With generous support from the National Science Foundation, Institutions Developing Excellence in Academic Leadership (IDEAL), an NSF Partnership for Adaptation, Implementation and Dissemination (PAID) grant (#0929907), adapts and disseminates the successful academic leadership development and institutional transformation methods developed by CWRU during its five-year ADVANCE IT initiative, Academic Careers in Engineering and Science (ACES). For more information about the CWRU ADVANCE IT grant please visit www.cwru.edu/admin/aces.

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