

**Diversity Resources Workshop:
Diversity Statements as a Tool for Integrating Diversity into Engineering Teaching Practice**

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In this workshop, participants will have an opportunity to learn about individual Diversity Statements as a unique strategy for 1) drawing engineering educators into a discussion of diversity issues and 2) focusing attention on integrating diversity with teaching. Specifically, this workshop introduces participants to materials designed for one part of a larger program developed for future engineering faculty called the Engineering Teaching Portfolio Program (ETPP).

Part I of the workshop will include a brief overview of the Engineering Teaching Portfolio Program. We will then describe the part of the program dedicated to development of individual Diversity Statements. We will describe our initial design of the Diversity Statement activities and what we learned from its implementation by a group of engineering graduate students. We will then briefly describe how we revised the exercise and what happened with a second group of participants.

In Part II, workshop participants participate in hands-on activities and review some of the results of a research study conducted during the initial offering of the program. Participants will receive original program materials that focus on Diversity Statements and then work through the diversity statement activities in small groups. Participants will be given opportunities to predict what graduate students might do if they participated in the same activities. Those predictions will be compared to data collected during the initial offering of the program.

Engineering Teaching Portfolio Program (ETPP)

Our work focuses on helping future faculty to develop practices of making teaching decisions that reflect issues important to engineering education. The Engineering Teaching Portfolio Program is one effort of the national Center for the Advancement of Engineering Education. The ETPP works to expand graduate student perspectives before they join the professoriate, rather than working to change the attitudes and behaviors of current faculty. ETPP graduate students have an opportunity to articulate their thoughts to their peers before being required to do so in a more “public” forum, such as a faculty interview or grant proposal.

The ETPP is unique among numerous portfolio programs available to graduate students across the nation because it is designed specifically for engineers, it is peer-facilitated, and participants develop a Diversity Statement as part of the program. To our knowledge, no other portfolio program asks graduate students to explore the importance of diversity and how it impacts teaching and learning in their field.

Individual Diversity Statements

As written documents, Diversity Statements are rare in academic or engineering education circles and during the first iteration of the program we were able to locate only one example to share with program participants. Diversity Statements are common at the organizational or institutional level. Typically, these statements are associated with a Mission Statement and present a philosophical perspective that the organization is committed to inclusion of a wide variety of people in its endeavors.

Like, corporate Diversity Statements, the most important function of an individual Diversity Statement may be to demonstrate that the author has given serious thought to the issue. In the ETPP, we have adopted an inclusive and organic approach to Diversity Statements, rather than limiting participants to a single definition. We provide suggestions about what might be included in a Diversity Statement. These suggestions for what to include are derived from our own work with engineering faculty and graduate students, as well as from publications, web resources, and leaders in engineering, all of which identify the need to increase diversity in the engineering education community*.

For our purposes, Diversity Statement could describe why an instructor uses particular teaching methods and their impact on students or how an educator interacts with students and colleagues with different backgrounds and experiences. Other kinds of Diversity Statements might include the author's perspective on the importance of a diverse scholarly community or its significance for the health of a discipline. Some authors might choose to provide examples of participation in diversity programs or contributions to recruitment and retention efforts.

ETPP's Diversity Statement Activities

We have implemented two complete design cycles of the of the Diversity Statement exercise. In the following pages, we provide the materials from those two iterations (each is labeled with a version number in the upper left hand corner).

* For example: American Association of Colleges and Universities, Diversity Web <<http://www.diversityweb.org/>>; A Bridge for All: Higher Education Design Principles to Broaden Participation in Science, Technology, Engineering and Mathematics <http://www.bestworkforce.org/PDFdocs/BEST_High_Ed_Rep_48pg_02_25.pdf>; The Chilly Climate <<http://www.bernicessandler.com/id4.htm>>; Entry and Persistence of Women and Minorities in College Science and Engineering Education <<http://nces.ed.gov/pubs2000/2000601.pdf>>; Final Report of the Women's Experiences in College Engineering (WECE) project <[http://www.nae.edu/NAE/naehome.nsf/weblinks/PLAE-5EDRSB/\\$file/WECE_FINAL_REPORT.pdf](http://www.nae.edu/NAE/naehome.nsf/weblinks/PLAE-5EDRSB/$file/WECE_FINAL_REPORT.pdf)>; WEPAN Pilot Climate Survey <<http://www.wepan.org/climate.html>>; Women and Men of the Engineering Path <http://www.erc-assoc.org/nsf/enrg_paths/EPMONOG.pdf>; Women, Minorities, and Persons with Disabilities in Science and Engineering 2002 <<http://www.nsf.gov/sbe/srs/nsf03312/toc.htm>>.

Engineering Teaching Portfolio Program

■ ■ ■ Diversity Statements ■ ■ ■

Topic Objectives

By the end of this topic, participants will have had:

- an opportunity to think about issues of diversity in engineering
- discuss diversity issues with peers
- articulate their thoughts about diversity
- receive peer feedback about their diversity statement

■ This Session:

Handouts

Diversity Statements (this document)
Example Diversity Statement
Possible Search Committee Questions about Diversity
Reasons for Switching M-F & M-W

Links

Nontraditional Undergraduates, National Center for Education Statistics, US Dept. Ed.
<http://nces.ed.gov/pubs2002/2002012.pdf>
National Science Foundation Merit Review, Letter from NSF Director Rita Colwell
<http://www.nsf.gov/pubs/2002/iin127/imptnot.pdf>
Merit Review Broader Impacts Criterion: Representative Activities
<http://www.nsf.gov/pubs/2002/nsf022/bicexamples.pdf>
<http://www.cs.washington.edu/diversity/>

Introduction – Engineering & Diversity

The lack of diversity among students and faculty in engineering is a well-documented, persistent challenge for engineering educators, and the business, government, and industry groups that hire engineering graduates. Many variables impact the population of engineering degree recipients, but three in particular are of particular importance in engineering: demographic patterns and trends, student retention, and economic/market influences.

People feel uncomfortable addressing diversity issues for a variety of reasons, including concerns about being accused of racism or, at the other end of the spectrum, being expected to represent the views of a particular underrepresented group. Few engineers can afford to avoid the subject these days because, while there has been progress, it has been small and slow. Faculty job postings increasingly mention diverse student populations. Funding agencies are providing the lever to encourage researchers to specify what roles they play in addressing this challenge. Well-conceived discussions of the broader impacts of engineering research have served to differentiate which highly ranked research proposals receive funding.

There is no better way to meet this challenge, than to discuss it among your peers before it comes up in more formal settings, such as a campus interview or proposal review.

What is a Diversity Statement?

Your diversity statement might discuss the importance of a diverse scholarly community or its significance in your field. You might use your statement to describe how you interact with students and colleagues with different backgrounds and experiences. You want your statement to demonstrate that you have given serious thought to the issue, explain why you take the actions that you do, as well as provide some examples.

Activities

The primary purpose of these activities are to provide you with an opportunity to think about diversity and articulate your thoughts *before* you are required to do so in an faculty interview or grant proposal. You may or may not opt to include this statement in the 'public' version of your portfolio.

Activity 1

As a group, identify students and faculty who are underrepresented in engineering.

Activity 2

Choose 3 questions from the Search Committee Questions handout (listed above). Individually, take 5-10 minutes to read and make notes about how you might answer these questions. If you do not feel you have answers at this time, what kinds of actions could you take to put yourself in a position to answer them? Either as a large group or smaller groups, process your responses to the questions.

Activity 3

As a group, brainstorm ideas about what people might choose to include in a diversity statement. Select one person to record and distribute the group's suggestions.

Before you leave today's meeting:

Decide on the layout and typographical details that will make it easiest to give and receive feedback in the next session.

What you should bring to the next session:

3 copies of the first draft of your diversity statement (1 for yourself, 2 for your peer reviewers)

■ Between Sessions:

Assignment: First Draft – Diversity Statement

The purpose of this assignment is to help you take the first step in thinking about your perspective on the diversity challenges in your field. This draft statement should be about 500 words in length. Choose any format or organization that is comfortable for you, e.g. a narrative format or one that uses headings/subheadings.

▮ Next Session:

Status Update

1. What was the most challenging aspect of this assignment?
 2. As a group create a list of the kinds of feedback that would be most useful for improving your diversity statement.
 3. Peer review. Each person should review at least two other diversity statements.
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Engineering Teaching Portfolio Program

■ ■ ■ Diversity Statements ■ ■ ■

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National Science Foundation Merit Review, Letter from NSF Director Rita Colwell
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Department of Computer Science and Engineering, University of Washington
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Activity 1

Many people are unclear about why diversity issues are being highlighted so much in engineering education. Please re-read the introductory paragraphs above about diversity in engineering.

- a) The emphasis on diversity issues in education is sometimes interpreted as a push to teach students from some groups differently than students from other groups.
 - Discuss why the 'different methods for different groups' approach is problematic.
 - Discuss other approaches to teaching that you might take.
- b) Identify the reasons for increasing diversity in engineering that you find most compelling.

Activity 2

Choose 3 questions from the Search Committee Questions handout (listed above). Individually, take 5-10 minutes to read and make notes about how you might answer these questions. If you do not feel you have answers at this time, what kinds of actions could you take to put yourself in a position to answer them? Either as a large group or smaller groups, process your responses to the questions.

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