# Diversity Committee Strategic Plan 2012 - 2013

The following document represents the work of the ASEE Diversity Task Force and was submitted to the ASEE Executive Board for review. The report contains 32 distinct recommendations all of which can, in some way advance ASEE toward various diversity goals. Thirty of the recommendations are not provided in any priority order – future decisions are required to determine what recommendations to pursue and the overall timeframe for action. It is the 1st and 2nd recommendations that are given the highest priority as they will have a huge impact on the implementation of the remaining 30 action items.

In response to the 1st recommendation a Diversity Committee was created in 2010.  It was believed that in the same manner that the Corporate Member Council was created to be the advocate of corporate interests within ASEE, the Diversity Committee would provide advocacy for diversity interests. With a seat on the ASEE executive Board, this is a public and definitive statement that ASEE values diversity at the highest levels within the organization.

Further, The Diversity Committee owns the Diversity Strategic Plan for ASEE. They are charged with identifying, implementing and overseeing the actions associated with the Diversity Strategic Plan reporting progress to ASEE Leadership on an annual basis. The Diversity website discussed in the 2nd action item provides visibility for ASEE diversity efforts as well as other functions to be determined by the website business model.

**Strategic Goals**

November 2, 2009

## Introduction

In early 2009, ASEE President Sarah Rajala created a Diversity Task Force charged with the following:

1.  Create an ASEE statement on commitment to diversity that can be made very visible in every ASEE publication.
2.  Create an action oriented strategic plan to identify things that we can do to ensure that we are not just making a nice statement.

The charge given to the committee included delivering a draft document for review by the ASEE Executive Board in November 2009, with a final version available in February 2010. Task Force members include Ray Haynes (Northrop Grumman), Karan Watson (TAMU), Diane Matt (WEPAN), Laura Bottomley (NCSU), Willie Ofusu (Penn State) with Bev Watford (Va Tech) serving as chair. The Task Force efforts have resulted in creation of the following document. Beginning with preliminary statements regarding the context and rationale for proposed actions items, the document describes 33 recommended activities that ASEE can pursue. This is followed by a brief description of each action item containing the following information; (1) description of action item, (2) the goal or purpose of the action, (3) the person(s) responsible for implementing the action, (4) the perceived value of the action with respect to the overall goal, (5) the estimated cost of action item implementation, (6) a proposed implementation timeline, and (6) perceptions of the continuity of the effort.

It should be noted that in 2002, ASEE created a Task Force with a similar charge. They developed a list of action items which were presented to the ASEE Executive Board. However, there were no further activities associated with their report. It is imperative that ASEE recognize the importance of following through with the recommendations of the current Task Force. Above all else, the Task Force's primary recommendation is that ASEE view this report and recommended actions as a high priority activity. Otherwise, this report will achieve the same results as the 2002 report – nothing.

## Overall Objectives

ASEE must seek to leverage the knowledge and experience of engineering diversity societies, engineering discipline societies, other national organizations focused on strategic development of the engineering workforce, HBCUs, HSIs and ASEE's organizational structure and national leadership position to achieve diversity, equity and access in engineering education. Systems-level change in U.S. engineering education is necessary to achieve necessary diversity/inclusion and access for groups typically underrepresented in engineering. Many deans, associate/assistant deans, and faculty may not have knowledge or experience in leading change for diversity/inclusion. ASEE is well positioned nationally and globally to lead engineering education to achieve the diversity needed for future engineering competitiveness.

There are two strategic tasks that are of primary importance to the successful implementation of this strategic plan.

1. Create the ASEE Diversity Committee/Council as a standing organization charged with the oversight of this diversity strategic plan. This group will own the Diversity Strategic Plan for ASEE. They will be charged with identifying, implementing and overseeing the actions associated with the Diversity Strategic reporting progress to ASEE Leadership on an annual basis. The Chair of the Council should have a seat on the ASEE Executive Board.
- **Goal**: To ensure that there is responsibility, continuity and accountability for progress regarding ASEE and diversity activities
- **Who**: ASEE Executive Board, National Headquarters will create and formalize the existence of this organization within the ASEE organizational structure.
- **Value**: High
- **Cost**: Minimal (teleconferences, minimal staff support)
- **Timing**: Announced and rolled out with the Strategic Plan at the 2010 Conference
2. Create the ASEE Diversity Center, a website hosted by ASEE Headquarters (based on the development of a sound business model)
- **Goal**: To provide visibility to the ASEE diversity efforts, and a forum for multiple strategic initiatives
- **Who**: ASEE Executive Board, National Headquarters
- **Value**: High
- **Cost**: Moderate
- **Timing**: Announced with the Strategic Plan at the 2010 Conference, created over the next year and website revealed 2011 Conference

With the accomplishment of the first task, ASEE will have a mechanism to accomplish the second task (website) as well as all other strategic tasks presented in this document. The creation of a

standing committee is a visible commitment of by ASEE to implement this strategic plan for the foreseeable future.

## Strategic Initiatives for the Collegiate Environment

*Overall Goals for Undergraduate and Graduate Students and Engineering Faculty*

- By 2020, African American students will make up at least 8% of engineering undergraduate enrollment, Hispanic students at least 12% of engineering undergraduate enrollment, and the Asian-American undergraduate enrollment will remain at least at current levels.

   The percentage of female undergraduate students will grow to at least 25%. We must work toward creating a critical mass within our profession. Current data indicates that 61.2% of the engineering undergraduate students in the U.S. are Caucasian, 5.5% are African-American, 9.3% are Hispanic, 10.7% are Asian-American and 0.6% are Native American or Alaskan. The percentage of female undergraduate engineering students is 17.5%.

- By 2020, percentages of US graduate student should mirror those of the proposed undergraduate population.

   Currently, 58.5% of the engineering masters degrees in the U.S. were awarded to Caucasians, 4.6% to African-Americans, 5.2% to Hispanics, 16.5% to Asian-Americans. The percentage of female masters engineering students is 23%. Similar statistics are available for doctoral students; both of these numbers include a large percentage of foreign nationals (42% of masters and 58% of doctoral degrees). Current data indicates that 61.2% of the engineering undergraduate students in the U.S. are Caucasian, 5.5% are African-American, 9.3% are Hispanic, 10.7% are Asian-American and 0.6% are Native American or Alaskan. The percentage of female undergraduate engineering students is 17.5%.

- By 2020 African Americans will make up at least 5% of engineering faculty, Hispanics will make up at least 6%, and Asian-American faculty will remain at least at 2006 levels. It is also intended that we strive to meet the same percentages for administrative percentages as for faculty members. Female faculty will grow to at least 20%. In 2006, 22% of engineering faculty were Asian-American, 11% were female, 2.5% were African-American and 3% were Hispanic. According to the newest ASEE Profiles the percentages for 2008 were: 22.7% Asian-American, 12.3% female, 2.5% African-American, and 3.5% Hispanic.
    3. Adopt a diversity policy statement and strategic goals, objectives and actions that sets the stage for ASEE to aggressively increase diversity within ASEE leadership and across U.S. engineering education, create an annual timeframe for assessment and evaluation of progress
- **Goal**: Lead national efforts to increase diversity in engineering by setting expectations for ASEE leaders and members
- **Who**: Diversity Committee, E-Week Diversity Council
- **Value**: High
- **Cost**: None
- **Timing**: 2-28-2010

4. Partner with E-Week Diversity Council (comprised of engineering diversity organizations), engineering discipline societies, ASEE WIED and ASEE MIND to open dialogue and create an ongoing collaborative relationship with engineering diversity organizations as a group to exchange valuable knowledge and experience, and identify diverse leaders who can be tapped for ASEE leadership roles or provide ongoing advice to Diversity Center. Work to establish a point of contact for ongoing interaction with partners.

- **Goal**: Build stakeholder group to advise ASEE

- **Who**: ASEE President, ASEE Diversity Committee, WIED, MIND

- **Value**: High

- **Cost**: Low

- **Timing**: E-Week Diversity Council meets ~ twice a year. Next meeting early 2010

5. Hold annual ASEE-sponsored diversity/inclusiveness workshop for engineering school teams following the Purdue model. **Working with the EDC engineering deans council and the new undergraduate engagement committee underneath the EDC.**

- **Goal**: Engage Engineering Deans and Associate Deans on a personal level and from institutions across the country in understanding the change-resistant and systemic nature of low diversity in engineering.

- **Who**: ASEE Diversity Committee, ASEE Staff

- **Value**: Moderate

- **Cost**: Moderate

- **Timing**: 2011 Annual Conference and beyond.

6. Offer annual module on diversity for all ASEE volunteer leaders as part of ongoing leadership development and training activities.

- **Goal**: To provide all ASEE volunteer leadership with an awareness of the importance of diversity and tools to assist them in helping ASEE accomplish its strategic objectives

- **Who**: ASEE Diversity Committee

- **Value**: High

- **Cost**: None

- **Timing**: 2010 Annual Conference and beyond

7. Encourage each division to actively seek out leaders from populations that are underrepresented in engineering

- **Goal**: To provide encourage and opportunities for all ASEE members to seek voluntary leadership positions

- **Who**: ASEE BoD, ASEE PIC Chairs, ASEE Division Chairs

- **Value**: Moderate

- **Cost**: None

- **Timing**: January 2010 for next election cycle and beyond

8. Encourage each division to hold at least one activity each year that features inclusiveness, such as: a jointly-sponsored session with an engineering diversity society or another ASEE division; a focused topical session, etc

- **Goal**: Engage ASEE leaders and members across the organization to improve the understanding of diversity, the importance to the profession of advancing diversity, and individual and

organizational opportunities and responsibilities in developing an engineering community that "looks like" America.

- **Who**: ASEE BoD, ASEE Diversity Committee, PIC Chairs, Division Chairs
- **Value**: High
- **Cost**: Moderate
- **Timing**: 2011 June Annual Conference and beyond

9. Create Model Policies and Practices by developing comprehensive, systems-oriented, model diversity/inclusiveness policies and practices for engineering colleges—practical guidance on actions leading to attracting, lifting barriers to access by students from underrepresented groups, enrolling, retaining and graduating classes of engineers that look like America. Encourage engineering college collaboration with successful programs that promote diversity, such as Engineers Week and Introduce a Girl to Engineering Day
- **Goal**: Create a menu of steps that engineering schools can implement to improve diversity and inclusiveness
- **Who**: ASEE Diversity Committee (website content)
- **Value**: High
- **Cost**: Moderate
- **Timing**: Begin early 2010, complete by 2012

10. Support national commitment for engineering diversity by advocating for stronger diversity evaluation standards for funding and accrediting organizations such as NSF, NIH, NASA, DOE, DOD, USN, USAF, ABET, etc.
- **Goal**: Provide meaningful, systemic incentives for improving diversity in engineering.
- **Who**: ASEE Board of Directors
- **Value**: High
- **Cost**: Moderate
- **Timing**: 2010 with interim targets and deadlines

11. Measure progress by developing model retention assessment tools that will yield accurate picture of student retention and include them in the survey of engineering schools.
- **Goal**: Standardize the collection of student retention data.
- **Who**: ASEE Diversity Committee, (website content), Mike Gibbons
- **Value**: High
- **Cost**: Moderate
- **Timing**: 2010 complete in 12 months

12. Promote excellence by working with Baldridge Awards for Excellence, and model diversity policies above, develop a highly prestigious awards program to recognize engineering schools that achieve key goals
- **Goal**: Focus national attention on schools committed to diversity
- **Who**: ASEE Diversity Committee, (website content), EDC
- **Value**: High
- **Cost**: Low to moderate
- **Timing**: Early 2010 to 2012 with national promotion by 2012

13. Lead Public Understanding of Engineering by creating awards for excellence in communication about engineering based on research conducted for Changing the Conversation, Engineer Your Life, Design Squad, and other related work. Work with E-Week to engage both corporate and engineering schools in upgrading and aligning their communications with the public.

- **Goal**: Build positive public image for engineering with key partners

- **Who**: Diversity Committee, (website content), E-Week Diversity Council, WIED, MIND, CMC

- **Value**: High

- **Cost**: Moderate to high

- **Timing**: 2010 to 2012

14. Provide specific high level leadership to advance diversity program.

- **Goal**: Provide leadership and funding needed to accomplish envisioned program

- **Who**: ASEE Board of Directors

- **Value**: High

- **Cost**: volunteer to full-time staff commitment

- **Timing**: 2010

15. Have role models from diverse backgrounds visit colleges (especially first year programs)

- **Goal**: Increase enrollments of diverse students into graduate programs

- **Who**: ASEE Diversity Committee, current faculty in engineering programs, department heads, deans

- **Value**: Moderate

- **Cost**: none to moderate

- **Timing**: Begin Fall 2010

16. Encourage teaching techniques that are attractive to diverse students (e.g., infuse greater societal relevance into curricula, active learning, etc.)

- **Goal**: increase enrollment of diverse undergraduate and graduate students.

- **Who**: ASEE membership perhaps coordinated through Divisions. Teaching and learning centers on campus can also be useful, perhaps teaming with university diversity centers, (website content)

- **Value**: moderate

- **Cost**: low

- **Timing**: 2010

17. Train/educate faculty on diversity issues – new instructor orientation too

- **Goal**: increase enrollment of diverse undergraduate and graduate students.

- **Who**: ASEE Diversity Committee, diversity organizations (GEM, SHPE, SWE, NSBE, AISES), (website content)

- **Value**: Moderate

- **Cost**: Moderate

- **Timing**: 2011 and beyond

18. Creation and Enhancement of Engineering focused Diversity Centers (e.g., Center for Engineering Diversity at University of Southern California – www.viterbi.usc.edu/students/undergrad/ced/ )

- **Goal**: increase enrollment of diverse undergraduate and graduate students.

- **Who**: EDC, ASEE Diversity Committee, (website content), NAMEPA

- **Value**: High

- **Cost**: High

- **Timing**: 2011

19. Increase Community of diverse scholars: Include people from Admissions and Student Affairs, current students and faculty, Industry and Alumni in social networking

- **Goal**: increase diversity of undergraduate, graduate and faculty ranks

- **Who**: Individual Colleges of Engineering, Deans, Industry, ASEE Diversity Committee

- **Value**: Moderate

- **Cost**: Low

- **Timing**: 2010 Annual Conference

20. Increase faculty involvement in outreach efforts (e.g., MESA, summer programs, visiting K-12 schools) along with grad students (GEM)

- **Goal**: Increase diversity of engineering undergraduates

- **Who**: Deans and Department Chairs – they have to recognize importance and give credit (RPT issues)

- **Value**: High

- **Cost**: Moderate to high

- **Timing**: Begin Discussions 2010 Annual Conference

21. Increase efforts at encouraging PhD students to go into academia

- **Goal**: Increase diversity of engineering graduate students, faculty and administrators

- **Who**: Professional groups – ASEE, WEPAN, PURPOSE Institute or other groups expand into this as well as current faculty members

- **Value**: High

- **Cost**: Low

- **Timing**: Begin Discussions at 2010 Annual Conference

22. Create REU funding "targeted" to diverse students – encourage more research, grad students

- **Goal**: Increase diversity of engineering graduate students, faculty and administrators

- **Who**: Diversity professional groups – ASEE, WEPAN, PURPOSE Institute or other groups expand into this as well as current faculty members

- **Value**: Low to Moderate

- **Cost**: Minimal

- **Timing**: Begin Discussions at 2010 Annual Conference

23. Encourage diversity hiring and recruiting practices for faculty – one example would be to require at least one interviewed candidate to be female and/or at least one to be from an under-represented group

- **Goal**: Increase diversity of engineering faculty
- **Who**: Engineering Deans and Department Heads, Leadership from Chancellor and Provost
- **Value**: Low to moderate
- **Cost**: None
- **Timing**: Initiate discussions at 2010 EDC meetings

24. Diversity hiring and recruiting practices for Admin and Department Chair positions – require at least one interviewed candidate to be female and/or at least one to be from an under-represented group
- **Goal**: Increase diversity of engineering administrators
- **Who**: Engineering Deans, Chancellor and Provost
- **Value**: Low to Moderate
- **Cost**: None
- **Timing**: Initiate discussions at 2010 EDC meetings

25. Actively seek ways to retaining female professors – seems to be larger drop-out (family work-life issues) -- Create more flexible work options, stronger accommodations in university life (child care)
- **Goal**: Increase diversity of engineering faculty and administrators
- **Who**: College administrators, Advance PIs
- **Value**: Low to moderate
- **Cost**: None
- **Timing**: Initiate discussions at 2010 ASEE Annual Meeting

26. Promote dual career hiring practices at universities
- **Goal**: Increase diversity of engineering faculty and administrators
- **Who**: College administrators, Advance PIs
- **Value**: Moderate to High
- **Cost**: None
- **Timing**: Initiate Discussions at 2010 ASEE Annual Meeting

27. Increase social networking and mentoring among current professors and Chairs (e.g., the Purpose institute – mentoring under-represented women faculty nationwide— catalyzed by an ADVANCE grant)
- **Goal**: Increase diversity of engineering faculty and administrators
- **Who**: ASEE or other host organization – Divisions
- **Value**: Moderate
- **Cost**: Low
- **Timing**: Initiate Discussions at 2010 ASEE Annual Meeting

28. Create program similar to ADVANCE but for other diverse groups
- **Goal**: Increase diversity of engineering faculty and administrators
- **Who**: ASEE could lobby NSF for such a program
- **Value**: Moderate

- **Cost**: None

- **Timing**: Initiate Discussions at 2010 ASEE Annual Meeting

29. Obtain summary/brief of research
- **Goal**: Objective is to be informed of existing data and what possible use these have been put to

- **Who**: Since the K-12 center is part of ASEE, this should be achievable by inter-office communication at HQ

- **Value**: Moderate

- **Cost**: Low

- **Timing**: If such data is not readily available in a form to be disseminated, that could result in an elastic time frame, initiate discussion at 2010 Annual Meeting

- Could highlight work being done around the country that is particularly efficacious with regard to impacting diverse students, whether by addressing achievement gaps, succeeding in recruiting diverse students to engineering, etc.

30. Very likely K-12 office has relationships with K-12 institutions around the country. If not they should establish such relationships.
- **Goal**: Such links when formed will help communication between K-12 office and said institutions. This will facilitate collection of data etc.

- **Who**: K-12 office should view this as a responsibility of their office

- **Value**:

- **Cost**: Low

- **Timing**: K-12 office may already have this done.

31. Develop Centralized/coordinated efforts between K-12 and other ASEE Divisions.Work with the WIE and MIND divisions to ensure centralized, or at least coordinated efforts, to highlight diversity in K-12/Precollege Things the K-12/Precollege division could do:
- **Goal**: To consolidate ASEE K-12 efforts, promotes collaboration and reduce duplication.

- **Who**: ASEE Executive Board

- **Value**: moderate to high

- **Cost**: None

- **Timing**: Initiate discussion at 2010 Annual Meeting

32. Establish partnerships with other professional diversity organizations such as IEEE. ASME, WEPAN, NSBE, NAMEPA, SHPE, etc In fact, ASEE could host a partnership conference of professional organizations engaging in K-12 work to try to facilitate knowledge and partnership among them. ASEE reach out to the other bodies and suggest partnerships with the view to working together on all diversity issues.
- **Goal**: Collaboration can assist ASEE is the implementation of desired strategic objectives.

- **Who**: ASEE Executive Board

- **Value**: High

- **Cost**: Low to Moderate

- **Timing**: This has begun with the coordination at the ASEE Exhibits

**Current Strategic Goals**

Adopt a diversity policy statement and strategic goals, objectives and actions that sets the stage for ASEE to aggressively increase diversity within ASEE leadership and across U.S. engineering education, create an annual timeframe for assessment and evaluation of progress

- **Goal**: Lead national efforts to increase diversity in engineering by setting expectations for ASEE leaders and members
- **Who**: Diversity Committee, E-Week Diversity Council
- **Value**: High
- **Cost**: None
- **Timing**: 2-28-2010

1. Partner with E-Week Diversity Council (comprised of engineering diversity organizations), engineering discipline societies, ASEE WIED and ASEE MIND to open dialogue and create an ongoing collaborative relationship with engineering diversity organizations as a group to exchange valuable knowledge and experience, and identify diverse leaders who can be tapped for ASEE leadership roles or provide ongoing advice to Diversity Center. Work to establish a point of contact for ongoing interaction with partners.
- **Goal**: Build stakeholder group to advise ASEE
- **Who**: ASEE President, ASEE Diversity Committee, WIED, MIND
- **Value**: High
- **Cost**: Low
- **Timing**: E-Week Diversity Council meets ~ twice a year. Next meeting early 2010

2. Offer annual module on diversity for all ASEE volunteer leaders as part of ongoing leadership development and training activities.
- **Goal**: To provide all ASEE volunteer leadership with an awareness of the importance of diversity and tools to assist them in helping ASEE accomplish its strategic objectives
- **Who**: ASEE Diversity Committee
- **Value**: High
- **Cost**: None
- **Timing**: 2010 Annual Conference and beyond

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- **Who**: ASEE BoD, ASEE PIC Chairs, ASEE Division Chairs
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- **Goal**: Engage ASEE leaders and members across the organization to improve the understanding of diversity, the importance to the profession of advancing diversity, and individual and organizational opportunities and responsibilities in developing an engineering community that "looks like" America.
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- **Value**: High
- **Cost**: Moderate
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5. Create Model Policies and Practices by developing comprehensive, systems-oriented, model diversity/inclusiveness policies and practices for engineering colleges—practical guidance on actions leading to attracting, lifting barriers to access by students from underrepresented groups, enrolling, retaining and graduating classes of engineers that look like America. Encourage engineering college collaboration with successful programs that promote diversity, such as Engineers Week and Introduce a Girl to Engineering Day
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- **Who**: ASEE Diversity Committee (website content)
- **Value**: High
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- **Timing**: Begin early 2010, complete by 2012

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- **Goal**: Focus national attention on schools committed to diversity
- **Who**: ASEE Diversity Committee, (website content), EDC
- **Value**: High
- **Cost**: Low to moderate
- **Timing**: Early 2010 to 2012 with national promotion by 2012