

Strategic Diversity Initiatives: Learning from and Leveraging Best Practices

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WEPAN/NAMEPA Joint Conference

April 11, 2005

Introductions and Agenda

- ◆ Introductions:
 - Cathy Stacy, UT Austin
 - Carla Carick, Cornell
- ◆ Overview of Intel investments in Diversity
- ◆ Key learnings and results from Partners
- ◆ Challenges and New opportunities

Education and Diversity Investments

- ◆ \$100M annual education investment
 - Approx. \$1B over program life
 - 52 Countries, 32 for Higher Education
 - Curriculum, faculty and lab development; Diversity
- ◆ Retention Initiative-\$3M
- ◆ Scholarships, Fellowships
 - \$3M annually; advanced degree focus
 - GEM, SRC, PhD Fellowships, UNCF
 - Undergrad in sites where Intel has a presence
- ◆ Undergrad Research-approx \$1.3M-~800K for diversity
 - Summer- connect universities that produce large numbers of African American BS grads to top graduate institutions
 - Academic Year-research and summer internships
- ◆ Partnerships with HBCUs, NACME, NAMEPA, WEPAN, Mentornet
- ◆ Bridge and Outreach Programs

Education and Diversity Investments

- ◆ National Conferences, Studies and Reports
 - BEST: Building Engineering and Science Talent, focused in diversity
 - Gender Equity Conference in Engineering Education, with Tufts University and hosted by the National Academy of Engineering (2003)
 - AAES Diversity Conference with GE 2003
 - AAAS/NACME Standing Our Ground-2004
 - Engineering Leadership Development pilot Summer 2005
 - Diversity is one of key focus areas retention
- ◆ K12 --improve student achievement in STEM; significant diversity focus
 - Professional development for teachers, tutoring and mentoring, Science Competitions-Intel ISEF and Science Talent Search
 - Intel Computer Clubhouse- safe, technology rich learning environments for members in under-served communities
 - 100 Clubhouses, over 20K youth

Current Retention Overview

- ◆ Funding since 2000
 - Pilot with U Michigan, U Illinois Urbana Champagne, UT Austin
 - Approx. \$3M investment
- ◆ Historical focus of program
 - Shift from Scholarships to Enroll, Retain to Retain
 - Retention focus on Supplemental Instruction and support, Undergrad Research
 - 2005-06
 - Finish grants and share BKMS; proliferate at site schools-13 Schools
 - Undergrad Research
 - ◆ 60% of US hires are advanced degree

Partner Presentations

- ◆ Cathy Stacy UT Austin
- ◆ Carla Carick Cornell

AAAS Center for Advancing Science & Engineering Capacity

Established August 2004 with 3-year, \$400K grant from Alfred P. Sloan Foundation to AAAS

- ◆ Fee-for-service consulting organization
- ◆ Provide institutions of higher education with:
 - nationally-calibrated research & technical assistance
 - Strategies for developing STEM programs & outcomes
- ◆ Foster institutional capacity to:
 - recruit, enroll, & support students
 - diversify the faculty
- ◆ AAAS Capacity Center embodies resources in *Standing Our Ground* (legal, policy, cultural) for changing programs, and moreover, attitudes

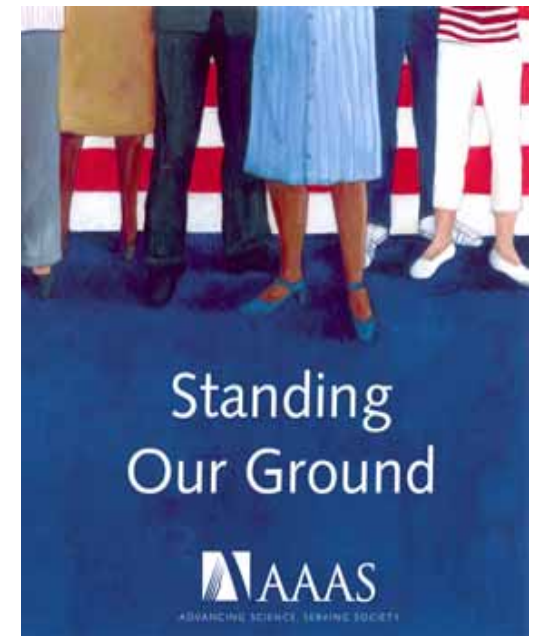
www.aaas.org/standingourground

Dissemination Plans and visits- Dr. Daryl E.

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Rev 1.0



Engineering Leadership Development Conference Pilot July 10-15, 2005

- ◆ **Objective:** Catalyze and enhance capacity of engineering education leadership with knowledge, skills, and abilities required to create environments that will successfully prepare engineering students for the technical and social challenges of practice in the 21st Century
- ◆ **Perceived Need**
 - Leadership development is not a formal part of the preparation of most engineering administrators
 - Many administrators have had few development and training opportunities in areas key to designing and implementing the needed transformation of engineering education
 - fostering creativity and inventiveness, leading change, and managing diversity
- ◆ Envisioned as multi-year project; supported through collaboration of industry,, academe and key organizations with vested interest in skill and capability of engineers of 21st century
 - Provides opportunity for greater synergy and shared learning
 - Operate under the auspices of the National Academy of Engineering
 - Pilot funded by Intel Foundation and NSF Planning grant

Pilot Delivery Model and Venue

- ◆ Leadership teams led by Dean (5 people)
- ◆ 10-15 institutions
- ◆ Five-day workshop in July 10-15, 2005
 - Hayes Mansion and Conference Center, San Jose CA
- ◆ Topics-Diversity, change management, strategic planning
 - Institute Topics presented and discussed with leading authorities and consultants in the field; demonstrated records of success
 - highly interactive, facilitated, planning time
- ◆ Attendees pay own travel, but will be provided with lodging, meals, and workshop materials.
- ◆ Application for post conference Department assessments by AAAS Center for Science and Engineering Capacity

Pilot Workshop-Outcomes

- ◆ As a result of the workshop, participants will be asked to develop written plans addressing most of the following:
 - Develop a academic strategic plan that builds on what the campus teams gained from the workshop content,
 - Develop an initial academic operational plan to implement an aspect of their strategic plan,
 - Develop a statement on the implications of the workshop content for their college and department administrative processes relative to faculty hiring and development, student pedagogy and engagement, industrial relations, etc.
 - Identification of critical infrastructure needed to support ongoing campus implementation
- ◆ As a pilot, feedback will be solicited to support value of ongoing conferences, beginning in Summer 2006
 - Content, delivery
 - Scaling
 - Additional topics and Areas of focus

Advisory Group

- ◆ Peter Crouch, dean of engineering, Arizona State University
- ◆ *David Daniel, dean of engineering, University of Illinois*
- ◆ Stephen Director, dean of engineering, University of Michigan
- ◆ *Denice Dee Denton, dean of engineering, University of Washington*
- ◆ Linda Katehi, dean of engineering, Purdue
- ◆ Louis Martin-Vega, dean of engineering, University of South Florida
- ◆ Carolyn Meyers, vice-chancellor for academic affairs, North Carolina A&T University
- ◆ Karan Watson, dean of faculties, Texas A&M University
- ◆ David Wormley, dean of engineering, Penn State University

- ◆ The Advisory Committee will meet by conference call
 - NAE will also host a physical meeting of this group

- ◆ Each member of the Advisory Committee to designate a staff member to serve on Working Group
 - responsible for detailed day-to-day work associated with planning and piloting effort
 - The NAE will host one meeting of this group preceding a physical meeting by the Advisory Committee

Looking Ahead: Challenges and Opportunities

- ◆ **Retain** those that come in to the programs
 - Continue Outreach
- ◆ **Data**-track your data; do more of what works and stop doing what doesn't
- ◆ **Concurrent Engineering , then Copy Exactly**-use BKM's; do not be hindered by "NIH"
- ◆ **Scale what works** -Set a goal to increase the pool year over year with a stretch goal realized by 2010
- ◆ **Collaborate**-link and leverage for better ROI and minimize competing resource dilemma
 - Combine elements that support both Women and Minority students
 - Look for projects that support multiple institutions
 - Share across other departments and schools, Math, Science
- ◆ **Integration into Eng, ECE, CS departments** (How can we help?)
 - Grant Requirements

Looking Ahead: Challenges and Opportunities

- ◆ **Make Community College connection real and strong**
- ◆ **Enhance your work** - Consider contacting AAAS re: presentations on Standing our Ground, use of AAAS center
- ◆ **Share what you know with us-**
 - Help us understand how to influence student achievement earlier
 - We are interested in piloting promising ideas, supporting practices that work, and collaboration
- ◆ **Areas of interest and focus:** Undergrad Research, “Service Learning”
- ◆ **Connected and integrated Pk-20 system**

Together we can move the needle....
.....Individually, we will not even hear the
pin drop

For more information Contact:
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