Corporate Sponsor

NORTHROP GRUMMAN
Today’s Agenda – Day 2

• NACME STEM Integration Model – Outcomes

• NACME Next Five-Year Strategy – Scholarships and University Relations

• The Big Study: Key Findings
NACME STEM Integration Model

Saundra Johnson Austin
Vice President, Strategic Partnerships
NACME, Inc.
NACME STEM Integration Model

NACME will integrate existing program elements into a unified continuum that leverages existing partnerships for students to move along the NACME Continuum from:

a) Academies of Engineering (AOEs) to NACME Partner Institutions and their linkage to Community Colleges

b) NACME Scholars to the Alfred P. Sloan Foundation Minority Ph.D. and Sloan Indigenous Graduate Partnership Program faculty

c) NACME Scholars to board companies for the purpose of gaining hands-on engineering experience in a summer internship/co-op assignment or to seek a full-time position

d) Alfred P. Sloan Foundation Minority Ph.D. and Sloan Indigenous Graduate Partnership Program Scholars to NACME Board Companies
The NACME STEM Integration Model
New York/New Jersey Regional Pilot – Launched March 26, 2012

ACADEMIES OF ENGINEERING
- Albany High School
  Albany, NY
- Bronx Engineering and Technology Academy
  Bronx, NY
- City Polytechnic High School
  Brooklyn, NY
- High School for Construction Trades Engineering and Architecture
  Ozone Park, NY
- John E. Dwyer Technology Academy
  Elizabeth, NJ
- Manhattan Bridges High School
  Manhattan, NY
- Rochester STEM Academy of Engineering
  Rochester, NY

Signed MOUs

TARGET COMMUNITY COLLEGES
- Essex Community College
- Hostos Community College
- La Guardia Community College
- Monroe Community College

PARTNER UNIVERSITIES
- Cornell University
- New Jersey Institute of Technology
- Polytechnic Institute of New York University
- Rochester Institute of Technology
- Rutgers, SUNY
- Stevens Institute of Technology
- SUNY Oswego
- Syracuse University
- The City College of New York

ALUMNI
- NY/NJ NACME Alumni
- NY/NJ Sloan Alumni

SLOAN FACULTY
- The City College of New York

BOARD COMPANIES
- ARCADIS U.S., Inc.
- AT&T
- Bristol-Myers Squibb Company
- Consolidated Edison Company of New York, Inc.
- Deloitte & Touche LLP
- IBM Corporation
- L-3 Communication Corporation
- Merck & Co., Inc.
The NACME STEM Integration Model
Texas Regional Pilot – Launched February 8, 2013

**ACADEMIES OF ENGINEERING**
- **AJ Moore Academy**
  - Waco
- **Cesar Chavez Sr. High School**
  - Houston
- **Emmett Conrad High School**
  - Dallas
- **H. Grady Spruce High School**
  - Dallas
- **Hillcrest High School**
  - Dallas
- **Justin F. Kimball High School**
  - Dallas
- **Lincoln High School**
  - Dallas
- **North Dallas High School**
  - Dallas
- **Sam Houston High School**
  - San Antonio
- **West Orange-Stark High School**
  - Orange
- **Woodrow Wilson High School**
  - Dallas
- **W.T. White High School**
  - Dallas

**TARGET COMMUNITY COLLEGES**
- Alamo CC
- College of the Mainland
- El Paso CC
- Houston CC
- San Jacinto CC

**PARTNER UNIVERSITIES**
- **Prairie View A&M**
- **Univ. of Houston**
- Univ. of Texas at Austin
- **Univ. of Texas at Dallas**
- **Univ. of Texas at El Paso**
- **Univ. of Texas at San Antonio**

*The Dallas Independent School District signed the MOUs on Behalf of the AOE in Dallas*

**ALUMNI**
- Texas NACME Alumni
- Texas Sloan Alumni

**SLOAN FACULTY**
- Rice Univ.
- Texas A&M
- Univ. of Texas, Arlington
- Univ. of Texas, Austin

**BOARD COMPANIES**
- AT&T
- BP America, Inc.
- Dow
- Exxon Mobil Corporation
- Hewlett-Packard
- L-3 Communications
- Marathon Oil Company
- Shell Oil Products U.S.
NACME Memorandum of Understanding

Highlights

• University Partners
  – Provide summer programs to high school students
  – Offer summer bridge programs to eligible incoming first year students admitted to college of engineering

• Corporate Partners
  – Serve on AOE Advisory Boards
  – Offer field trips and internships to AOE students

• AOEs
  – Encourage graduating high school seniors to apply for the one-time $2,500 NACME Pre-Engineering Scholarship
  – Provide data to NACME on graduating seniors
NACME Pre-Engineering Scholarship Eligibility

- African American, American Indian, or Latino graduating high school seniors
- U.S. citizens or permanent residents
- Participants in an Academy of Engineering (a National Academy Foundation network of career-themed academies) or a pre-college or high school program focused on math, science, and engineering;
- Outstanding academic achievers earning a minimum cumulative 3.0 GPA or “B” average
- Have a preferred combined SAT score of 1650 for critical reading, writing, and math, with a minimum math score of 550; or minimum composite ACT score of 24, and a minimum score from the math section of 24
- Admitted into an engineering program as a full-time student. Priority will be given to applicants who have been admitted to a NACME Partner University
- Application deadline is April 1st. Visit nacme.schoolforms.org to apply
NACME STEM Integration Model

Dr. Christopher Smith
Director, Research and Program Evaluation
NACME, Inc.
NSIM Outcomes - Scholarships

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<th>Institution Type</th>
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<th>Non-AOE</th>
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<tr>
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<tr>
<td>Non-Partner Institution</td>
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</table>

- **2012-2013**: Blue
- **2013-2014**: Red
- **2014-2015**: Green
- **2015-2016**: Purple
NSIM Outcomes – Partner Surveys

• Conducted at the end of the 2014 and 2015 school years
• Main Findings (n=18):
  – 83.3 percent of respondents rated NACME’s engineering awareness materials as valuable
  – 44.4 percent of respondents assessed their students’ access to NACME Partner Institutions for summer program experience as excellent or good
  – 50.0 percent of respondents believed that access to college and career opportunities for their students has increased due to the NSIM
  – 83.3 percent of respondents rated the value of the NACME partnership for their school as valuable or very valuable
NSIM Outcomes – External Evaluation

• Conducted by Metis Associates in 2013-2014

• Main Findings:
  – There is strong support among all stakeholder groups for the NSIM. Respondents believe the model is well thought out and provides a strong framework for collaboration to achieve NACME’s goals
  – The success of the NSIM requires a systematic and strategic approach to the selection of key partners that are aligned to the needs of the target populations in each location.
NSIM Outcomes – External Evaluation

• Recommendations
  – Strategically form partnerships within regions
  – Organize meetings around necessary student supports
  – Engage in data-driven decision making
  – Develop data-sharing agreements
NSIM Outcomes – Summary

• NACME must develop a more strategic approach to the selection of key partners within the NSIM

• The organization should engage in data-driven decision making, where data guides the partnerships that are developed

• While there is strong support for the NSIM, all of the partners are not aware of the full benefits of the model for their particular school