

Sharing Best Practices in Business & Industry Partnerships
2011 NSF/AACC Broadening Impact Conference

Hosted by the American Association of Community Colleges (AACC) in partnership with the National Science Foundation (NSF), the *Broadening Impact* (use this for a hot link: <http://www.aacc.nche.edu/Resources/aaccprograms/ate/Pages/broadeningimpactconference.aspx>) conference marks the first time that NSF brought together over 300 representative principal investigators (PIs) from all NSF programs open to two-year colleges. The purpose was to: (1) share promising strategies and lessons learned in STEM program development and improvement across NSF divisions and directorates; (2) deepen knowledge about the breadth and diversity of relevant NSF programs; and (3) develop a community of practice, focused on two-year colleges, that encourages collaboration and network building.

Activities at the conference included Principal Investigator-led breakout sessions that included one on *Sharing Best Practices in Business and Industry Partnerships*. The session included 35 attendees in addition to the 3 facilitators, with an overarching goal to identify and share best practices regarding building, maintaining and strengthening partnerships between community colleges and business and industry entities.

Session participants broke into small groups and were provided four fundamental questions on the topic to catalyze the discussions.

- 1. What beneficial support can business and industry partners contribute to your program or department?**
 - a. Internships
 - b. Relevant skill sets
 - c. Jobs
 - d. Input to curriculum
 - e. Real scenarios for students
 - f. Adjunct faculty
 - g. Guest speakers
 - h. Outreach i.e. ongoing programs maximize impact
 - i. Tours of company
 - j. Design expertise for training devices
 - k. Industry advocacy for speaking to CC administration
 - l. Curriculum development assistance
 - m. Financial support
 - i. Tuition assistance
 - ii. Scholarships
 - iii. Faculty salary
 - iv. Supplies
 - v. In-kind donations, equipment and facility loan
 - n. Mentoring

- o. Assistance with developing High School to Community College pipelines
- p. Students to attend the college
- q. Evaluate student work
- r. Provide open ended projects in PBL
- s. Faculty development
- t. Creates a network
- u. Cultural indoctrination – exposure to the industry allows a student to decide if this is the industry/company that he wishes to pursue.

2. What can your program or project offer to business and industry partners?

- a. Skill sets beyond the traditional curriculum
- b. A voice to advisory ‘How vs. What’ committees for problem solving in communication and application of technical skills
- c. Innovation – students solve problems and bring new ideas
- d. Exposure - students see/are exposed to future employers
- e. Contract research moles support local businesses
- f. Diverse employer pool
- g. Companies influence programs
- h. Customized training
- i. Partners don’t understand the education system – we can help them through the process.
- j. Apprenticeship program in non-traditional areas bring in new ideas – new technology bring in industry “voice”
- k. Exposing students to research at an early stage brings unique skill sets/sense of ownership – learn how to learn
- l. Access to transfer and further education
- m. Pathways to employment in partner organizations
- n. Assistance with projects
- o. Quick response in meeting training needs (in some states)
- p. Employees
- q. Training – customized for current employees
- r. Job applicant screening process
- s. Business incubator for students and for business
- t. Online training
- u. Reduced ramp-up time/cost of new employees
- v. Reduced training budget
- w. Standardization of training protocols
- x. Contact with community in which they operate

3. How does one identify and approach business and industry entities appropriate for building partnerships and academic and technician education programs?

- a. Establish relations through:
 - i. Advisory Boards
 - ii. Chambers of Commerce
 - iii. Workforce organizations e.g. economic development and WIB
 - iv. Business roundtables at state and national
 - v. Introductions to specific contacts
- b. Track students
 - i. Co-ops and internship programs with clear expectations and evaluations
 - ii. 1 year evaluations of graduates
- c. Go to industries
 - i. First line managers – anticipate turnover of staff
 - ii. Discuss requirements
 - iii. Formalize agreements for long term programs
- d. Identify incentives for partners
 - i. Curriculum input
 - ii. Presentations
 - iii. Highlight partners and hiring companies in promotional materials
- e. Give students extra credit for identifying companies they are interested in working for and through this expand company contacts
- f. Organize multidimensional community forums to discuss a variant of subjects – announce through web, professional organizations, etc.
- g. Approach entities and ask for recommendations for advisory board and/or joint entities
- h. Leverage economic development resources and connections
- i. Industry relations through adjuncts for notification of jobs and internships.
- j. Develop certificate programs
- k. Make faculty professional development connections
- l. Identify appropriate businesses
- m. Contact former students working for companies
- n. Showcase student projects at events - students network and meet company reps and develop relationships
- o. Use job fairs to businesses, attend industry and professional society meetings

4. What roles do professional organizations and societies serve in building, supporting and strengthening collaborations between colleges and business and industry partners?

- a. Association partnerships help build bridges with industry, convey industry needs to the Community College and guide curriculum and professional faculty development
- b. Provides marketing support for dissemination, mentoring, networking and ongoing training at meetings
- c. Challenge - Community College needs to better inform industry about benefits and role Community College can play

- d. Provide scholarships
- e. Certifications, such as ANS, IMS, ASE, SME, ASQ, MSSC, NATEF, CEER*
- f. Career pathways
- g. Educational subcommittee
- h. Share best practices
- i. Adjuncts
- j. Gives students the opportunity to see themselves as part of the group – conferences
- k. Awards for resume building
- l. SHERM interviewing skills
- m. Mentors
- n. Reduced rates for conferences
- o. Program recognition

ANS – American Nuclear Society
IMS – Intelligent Manufacturing System
ASE – Automotive Service Excellence
SME – Society of Manufacturing Engineers
ASQ – American Society for Quality (Training, Certification, and Networks)
MSSC – Manufacturing Skills Standards Council
NATEF – National Automotive Technicians Education Foundation
CEER – Center for Energy & Environmental Research