MPS/EHR Working Group :: Broadening Participation

SUGGESTED ACTIONS FOR DISCUSSION/PRIORITIZATION

ACTION:

- Adapt the MPS PREM model to other MPS disciplines

Charge:

- Broadening Participation

National Impact?

- Yes

Outcomes

- Formal, long-term, collaborative research and education partnerships between minority-serving institutions and NSF supported groups, centers and facilities. E.g., programs like DMR’s Focused Research Groups (FRGs), Nanoscale Science Interdisciplinary Research Teams (NIRTS), Materials Research Science and Engineering Centers (MRSECs), and Nanoscale Science and Engineering Centers (NSECs)
- Mutually beneficial research and education projects, support for graduate and undergraduate students, exchanges of faculty and students, participation of well-prepared high school students

Players

- Minority serving institutions
- MPS groups, centers and facilities

Feasible?

- MPS PD’s in charge of these programs would encourage
- EHR HRD PD can make MSI’s aware and encourage

Budget Needed

- $250,000 to $750,000 per year for up to 5 years for each effort

Leverages What?

- An existing model = MPS PREM – we already know how to do it & have examples

ACTION:

- Encourage large facilities and MREFC projects to recruit under-represented minority students and researchers

Charge:

- Broadening Participation

National Impact?

- Limited to large projects

Outcomes

- Increased participation of under-represented students and researchers

Players

- PI’s of large MREFC-class projects

Feasible?

- Yes. In fact, should be part of Criterion Two Broader Impacts now
Budget Needed

• No

Leverages What?

• EHR HRD’s awareness of where the students and faculty are; ability to be specific about institutions and programs in MSI’s

**ACTION:**

• **Jointly build capacity in MPS fields at HBCU’s: promote to MPS grantees funding available**

Charge:

• Broadening Participation

National Impact?

• HBCU’s primarily, with S&E undergraduate programs

Outcomes

• Departments at HBCU’s obtain specialized accreditation, establish a new S&E program, or revamp an S&E program to meet discipline and industry standards. Esp. in NSF priority areas, and interdisciplinary areas.
• May include curriculum enhancement, travel, training, new course development, justifiable equipment purchases.

Players

• MPS grantees
• HBCU’s

Feasible?

• Already available; need information flow to MPS grantees

Budget Needed

• Program already has budget

Leverages What?

• HBCU “Targeted Infusion Projects” initiative: five-year capacity building projects; up to $150K for one to two years
• Initiative is funded for $700K per FY 06 and FY 07
• Expect to fund four to seven each year

**ACTION:**

• **Encourage MPS grantees to recruit REU students from EHR grantees that are intensively supporting minority undergraduates**

Charge:

• Broadening Participation

National Impact?

• Yes, to the extent that MPS grantees are everywhere

Outcomes

• Percentage of REU students who are from under-represented groups is increased

Players
Feasible?

- All MPS grantees
- Entails promotion of the opportunity, and information about schools from which to recruit

Budget Needed

- REU program covers this already

Leverages What?

- MPS grantee base, REU program, and HRD awareness of minority-serving institutions having relevant S&E undergraduate programs

ACTION:

- **Extend GK-12 program to GK-14 (community college level):** have graduates in MPS fields enlist to teach at community colleges

Charge:

- Broadening Participation

National Impact?

- Yes – community colleges are everywhere

Outcomes

- More community college students elect to enter MPS fields due to exposure to graduate students as part-time teachers

Players

- Graduate programs in MPS fields
- Community colleges including programs in MPS fields

Feasible?

- Requires significant addition to a program or a new program

Budget Needed

- \(? \) significant

Leverages What?

- NSF experience with GK-12 program & its outcomes, experience with costs, benefits, higher education interest in participating