How to increase Women and Minorities in DoD STEM Career Fields; an Interesting Approach to Making Meaningful Impact

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Overview

- Why is this important to DoD?
- Show me the data!
- Establishing Research and Fellowship Partnerships
- Direct DoD Scholarships
- Results Driven

Why is this important to DoD?

- Largest STEM employer in the world
- Enormous adverse impact, drain on our economic growth
- On-going under-representation of Minorities and Women in DoD and Universities
- DoD must more aggressively attack the problem in a multifaceted way
- We're proposing a novel approach

Show Me the Data: 2019 STEM Realities

- Engineering: Women are 13-24%, with approximately 5000 Black graduates out of 127,000 total graduates in 2019
- Computer Science and IT: About 89,000 grads per year and 26% of them are Women and Black only 9%
- Health related professions: 251,400 grads: Men 15%: Black: 29,000
- Biological Sciences: 121,200 degrees: Men 36%: Black: 10,000
- Hispanic population is really surging as a STEM participant when comparing today to 10-15 years ago

What if we could get Minority Graduates to 27% and Women to 55%?

(Very Similar to NY Times Study of Haiti)

Why the 27 and 55 Percent Matters

- Graduate Year Minority Impact: $3.1B (adjusted salary by discipline)
- Graduate Year Impact on Women: $15B
- However, these choices cause lifetime impacts—these decisions by our young people will likely affect them for 50 working years
- Annual Lifetime Minority Impact With No Salary Adjustment: $120-150B
- Annual Lifetime Impact to Women With No Salary Adjustment: $400-600B

DoD Should Target Growing 25-100K More STEM Graduates Per Year (It is only a "paltry" $2-8B)

Universities receiving > $500M in DoD / Federal Funds

- Universities shall allocate 2% of their DoD funding to establish the programs during their first year
- Funding Allocations Beyond the first year:
- Year 2: 3%
- Years 3: 7%
- Years 4-5: 10%
- Year 7: 15%
- Year 8: 20%
- Years 9 and beyond: 30%
- DoD target: 10,000 scholarship awards per year to Poor of any color, gender with STEM the only constraint

Establish Research and Fellowship Partnerships

FFRDCs must fund and mentor at least 100 Poor Minority or Women Students Workers per $500M in DoD funding, including STEM-related scholarships, and pro-rate if funding less than $500M

Discussion of Simulation Results

Challenges

- Duplicating the mentoring/"reschooling" that should happen in Junior High and High School (addressing Malcom Gladwell's point(s) from "I Hate the Ivy League") with poor Elite students

- Court Decisions

- Supporting concepts that "Lifts All Boats"

Actions / Next Steps

- Draft the salient features of what should be the legislation
- Work with the delegations to begin the process
- Find talent in prisons and other under utilized areas