

Assessment of NIH Minority Research Training Programs: Phase 3

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Origins

- Phase 1 (1993): documented pattern of minority underrepresentation and presented an overview of NIH minority programs
- Phase 2 (1997): feasibility of and strategy for an NIH evaluation
- Phase 3 (2005): National Academies undertake study chaired by John Bailar and Willie Pearson...completed and released June 2005
- Follow-up: NIH working on agency-wide response

Charge to Study Committee

- Assess and analyze NIH minority trainee educational and career outcomes
- Address the following questions to the extent possible, using existing data supplemented by surveys and interviews:
 - Do the NIH minority research training programs work?
 - Which features of minority programs have been most successful and which have been least?
 - How can a system be set up to provide better data for future assessments?

Study Parameters

- Thirteen program categories
- Four career stages: undergrad, grad, postdoc, junior faculty
- Two comparison groups: minorities and non-minorities in non-targeted programs
- Period: 1970-1999

Data

- Existing NIH quantitative data
- Prior assessments of individual minority-targeted programs
- CATI interviews with trainees
- Interviews with campus program administrators
- Interviews with NIH staff

Problems with NIH Data

- Race/ethnicity missing before 1992
- High incidence of missing: SSN, gender, date of birth, degree sought, permanent address
- Items not entered: name/address/phone of institution, name of program director, whether funding was minority-targeted

Interpreting the Privacy Act

- The NIH interpretation of the Privacy Act prevented the Academies from receiving unit-record NIH data
- These data had to be obtained in an aggregated form from an NIH data contractor
- Slow, cumbersome process that hampered data analysis

Survey Response

- NIH data contractor conducted 732 CATI interviews with trainees across the 13 programs and comparison groups
- Location information was out of date for many trainees and as a result there was substantial difficulty in locating interviewees and obtaining responses
- Bias: Committee believes those who responded were more likely to have been “successful”
- BUT: interview data useful in a general way and used qualitatively in the report

Key Findings

- Research Experience: “Best feature”
- Scientific knowledge: Terrific opportunity to learn
- Mentoring: Highly valuable, but inconsistent; minority postdocs less likely to report having mentors
- Opportunities: Try out science (undergrad), Network (grad), Grant writing (grad/postdoc)
- Funding: Critical but insufficient – so that students can focus in their studies, important that they are not distracted by part-time work off-campus

Women

- The committee noted a shift in the gender distribution among trainees from predominantly female at the undergraduate level to predominantly male at the postdoc and junior faculty levels
- Warrants further study...and possibly corrective action...

Minorities

- The committee concludes that underrepresented minorities are entering the biomedical workforce as a direct result of the NIH minority research training programs (Note: What is success?)
- Caveat: among trainees who responded (possibly the most successful):
 - Publish fewer papers
 - Have greater difficulty securing employment
 - Report less social integration in their laboratories

Recommendations: Minority Training

- NIH should commit to continued funding of minority-targeted training programs
- By the end of 2005, the NIH director should articulate a set of clear and measurable training goals and objectives for minority training
- Examine: race/ethnicity eligibility, gender issue, mentoring, research infrastructure

Recommendations: Program Coordination

- The director of each institute should designate a single individual as Minority Research Training Programs Coordinator for that Institute
- The NIH Office of the Director should convene a meeting of all Minority Training Coordinators on at least a quarterly basis to:
 - coordinate programs, share best practices, review evaluations, etc.
 - establish appropriate guidelines and measures for evaluating NIH Minority Research Training programs

Recommendations: Future Evaluation

- Further study of the relative effectiveness of minority-targeted vs. non-targeted programs should be carried out by the NIH ICs under coordination of the Office of the Director
- The Director of NIH Training should provide and administer funds necessary for data collection and evaluation
- The general issues in this report should be revisited periodically at the NIH level with the next report submitted by FY 2009.

Recommendations: Improving Data

- NIH should develop a relational database that collects a minimum data set (MDS) for all persons who receive funding as trainees, fellows, research assistants, or postdoctorates, including those programs targeted to underrepresented minorities
 - Lead: NIH Office of Director
 - Includes: Data tracking elements
 - Timing: Implement immediately with completion no later than FY2008

Defining “success”

- Three metrics:
 - Increase # of Ph.D.-level biomedical researchers
 - Advance students to the “next level”
 - Provide value to program participants

Issues in Assessing Value

- Research training pipeline is necessarily leaky
- Its not always a straight line
- More than one family generation may be needed to establish science as a career goal
- Building capacity in a community requires role models