Addressing the Looming Shortage of Statisticians

What NIH Is Doing About It

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Supply Measure – 88/year

average number of new doctorates in biometrics and biostatistics awarded by US universities in 2000 – 2002

Demand Measures –

48: average number of doctoral-level positions advertised per year in Amstat News, 1990-1994 (DeMets et al., 1998)

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179: number of doctoral-level positions listed in JSM employment service, 2002

Reasons for Gap

Demand increasing:

- New technologies
- Changing regulatory demands

Supply not:

- Insufficient student support

NIH Meetings, September 2001, December 2003

Recommendations

- Support more training programs
- Include bioinformatics
- Broaden training
- Relax training grant restrictions
- Stimulate undergraduate interest

Existing NIH Support

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- Training support legislated through National Research Service Act

New Program
Summer Institute(s) for Training in Biostatistics

- Introduce advanced undergraduates to biostatistics
- 6-week summer course
- Make course materials available
- Summers of 2004 – 2006
- National Heart, Lung and Blood Inst.

New Predoctoral Training Program in Biostatistics

- Support 4-6 awards in FY 2005, 3-5 slots in each program
- Expand in FY 2006
- Developed by National Inst. of General Medical Sciences
- Emphasis on interdisciplinary studies and research

NIH Roadmap Themes

- New Pathways to Discovery
- Research Teams of the Future
- Re-engineering the Clinical Research Enterprise

Roadmap Initiative
Multidisciplinary Clinical Research Career Development Programs

- "train and foster the [postdoctoral] career development of individuals … to become the next generation of clinical researchers"
- Emphasis on clinical research methodology, including epidemiology, biostatistics, informatics, etc.
- Impact on supply and demand

NIH Response

- Continue existing programs
- Add training programs
  - undergraduate summer sessions
  - targeted new predoctoral training
- NIH Roadmap