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

- 27 Predoctoral training programs at 16 universities
Existing NIH Support

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- Programs funded by 10 categorical institutes or centers
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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