The PhD Statistician: Are There Too Many?

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Relevant Information

- Faculty at PhD Stat and Biostat Departments: 1824 (Fall 2009)
- Students at those universities: 2.1M
- Students at other PhD universities: 3.7M
- Students at Bachelor’s and Master’s univ.: 5.3M
Back of Envelope Calculation

• 40 year career implies ~ 45 new hires each year (steady state)
• Based on student enrollments, would need about 78 new hires at other PhD institutions
• Similarly, need about 61 at B and M institutions (assumes double the teaching loads)
• 45+78+61 = 184
Calculation (continued)

• Business, Industry, and Government hire about 125 each year
• About 50 leave the US each year
• 75-100 go to non-math/stat/biostat departments
• Brings total to 425-450
Comments on Demand

• Calculation does not include 2-year colleges (over 7M students)
• Faculty at PhD-granting Statistics & Biostatistics have increased at a rate of about 50 faculty per year over the past ten years.
• Even with this increase, many positions go unfilled.
Percent of Academic Positions Filled by Department Type

Year

Math Group I Public
Math Group I Private
Statistics and Biostatistics
Math Group II
Production Information

Number of Statistics Degrees Awarded (2000-2009)
NCES Data

Year

Ph.D.s
Production Information (cont.)

• NCES shows an average around 350
• NSF shows numbers in the 400s.
• AMS and ASA surveys suggest around 500 in 2010
• But, Industry is beginning to hire again
• Government agencies claim they always have trouble hiring statisticians
References and Data Sources

- AMS Surveys: http://www.ams.org/profession/data/annual-survey/annual-survey
- ASA Surveys: http://www.amstat.org/outreach/departmentsurveys.cfm
- Amstat News: http://magazine.amstat.org/blog/2011/07/01/the-phd/