Annual Survey of New Doctoral Recipients in the Mathematical Sciences

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Reporting Today on Two Surveys

- Doctorates Granted – an annual survey of all U.S. doctorate-granting departments in the mathematical sciences which gathers information on individuals awarded a doctorate.
- Employment Experiences of New Doctoral Recipients – a survey of the individuals reported via the Doctorates Granted survey.
- AMS conducts two additional annual surveys of 1,500 U.S. math departments. All work is done by 1.75 FTE from three individuals.
Doctorates Granted Survey

- 207 departments of mathematics or applied mathematics surveyed in 2010
- 57 departments of statistics and 35 departments of biostatistics surveyed in 2010

Departments Are Asked to Report

- Name, gender, citizenship and residency status for non-U.S. citizens
- Thesis advisor, thesis title, and month and year degree was awarded
- Mathematical area of thesis using an international classification scheme for mathematical sciences
- Employment plans for fall
- Contact information for summer and for fall
Steps in Doctorates Granted (DG) Survey

- **April, Year N** - Postal mailing to all departments requesting information on each individual awarded a doctorate between July 1, Year N-1 through June 30, Year N.
- **June, Year N** – email reminder one week before deadline.
- **July, Year N** – second paper mailing sent followed by email reminder one week before deadline in early September.

Steps in DG Survey (continued)

- **October, Year N** – Preliminary report prepared based on returns in hand by mid-September. Usually represents at least 90% of the final count of new doctorates. Report appears in AMS Notices in January.
- **January through February, Year N+1** – intense follow up with remaining non-responding departments, using email, phone calls, and other forms of persuasion.
- **Final report appears in summer issue of AMS Notices.**
DG Response Rates

<table>
<thead>
<tr>
<th>Department</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>98%</td>
<td>91%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Statistics or Biostatistics</td>
<td>94%</td>
<td>80%</td>
<td>73%</td>
<td>97%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Improving DG Response Rates

- Added steps in 2009 to personalize requests sent to departments in statistics and biostatistics.
- Added one-page summary of survey results for previous year for doctoral recipients from departments of statistics or biostatistics.
- Added letter of endorsement from President and Executive Director of ASA.
- Preliminary report for 2010, published in early January, included the names of all non-responding departments.
### Employment Experiences of New Doctoral Recipients (EENDR) Survey

- Sent to each new doctoral recipient reported to us by September. When email address is known, send email to confirm/update address for mailing EENDR form.
- Form and cover letter mailed in mid-October. Form may be completed online. For 2011 survey, will send paper only when no email is known.

### EENDR Survey (continued)

- Mailing includes an incentive for completion of survey: responders by deadline are eligible for a drawing with first prize of $500, two second prizes of $200 and three third prizes of $100.
- Instituted with 2009 survey, the incentive replaced $20 coupons from each of 5 sponsoring societies in use for previous 12 years. The drawing has significantly increased the number of early responders, and raised the final response rate approximately 5%.
Data Gathered on EENDR Survey

- Employment status as of early October
- If employed, details on the position:
  - Full-time versus part-time
  - Permanent versus temporary
  - If temporary academic, is it a postdoc
  - Sector of employment
- Salary
- Gender, age, citizenship status, residency status
  (serves to confirm data from departments)

EENDR Response Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53%</td>
<td>47%</td>
<td>45%</td>
<td>53%</td>
<td>54%</td>
</tr>
</tbody>
</table>
EENDR Survey Response Rates

- Response rates vary depending on the employment sector of the new doctorate.
- Rates are higher for those employed within US academia, in the 60% range, and
- lower for those in US business and industry, in the 40% range.

More info on Annual Survey

- All current survey forms are available on the AMS website at http://www.ams.org/profession/data/annual-survey/surveyforms
- All survey reports are accessible from this same page, with enough clicks.
- Contact me at jwm@ams.org