Annual Survey of the Mathematical Sciences in the US

**ANNUAL SURVEY** 

#### Figure A.2: New PhDs Awarded by Group



Comparing PhDs awarded in 2015-16 with those awarded in 2005-06:

- PhDs awarded have increased more than 46% over the last 10 years.
- Degrees awarded by Doctoral Math and by Statistics/Biostatistics combined have increased 48% and 43%, respectively.

# Employment

The employment plans are known for 1,746 of the 1,921 new doctoral recipients. The number of new doctoral recipients employed in the US is 1,449, essentially the same as last year. Among those new PhDs employed in Doctoral Math departments, 68% are in postdoc positions, down from 75% last year. The number of new PhDs taking positions in Business & Industry is 495; last year's count was 492. All groups except Math Public Medium, Statistics and Biostatistics showed an increase in Business & Industry. The overall US unemployment rate for the new doctoral recipients is 5.9%, essentially the same as the 6.1% in 2014–15. (Details on the calculations are on page 357.)



### Figure E.1: Employment Status

- 52% (757) of those who are employed in the US are US citizens, up from 50% in 2014–15.
- 79% (692) of non-US citizens whose employment status is known are employed in the US, the remaining 179 non-US citizens are either employed outside of the US or are unemployed.
- 8% (133) of the new PhDs who are employed are working at the institution that granted their degree, down from 9% last year. These individuals constitute 15% of total US academic employed.
- 57% of those still seeking employment in the US are US citizens.





\*Includes all Math Public, Math Private, and Applied Math departments.
\*\*Other Academic consists of departments outside the mathematical sciences including numerous medical-related units.

- US academic hiring increased 2% to 884 compared to 864 last year.
- Government hiring decreased 20% (from 88 to 70); all doctoral-granting groups except Math Public Medium, Math Private Large, Math Private Small, and Applied Math showed decreases in the number of PhDs taking positions in this sector.

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Figure E.3: Employment in the US by Type of Employer and Citizenship Total: 1,449



# Figure E.4: PhDs Employed in Postdocs by Degree-Granting Department Group



• Total known to be employed as of this report: 1,642

Of the US Citizens whose employment status is known, 87% (757) are employed in the US, and of these:

- 32% are employed in PhD-granting departments.
- 36% are employed in all other academic categories.
- 33% are employed in government, business and industry.
- 35% (576) of the new PhDs that are employed are reported to be in postdoc positions, down 4% from 603 in 2014–15.
- 52% of the new PhDs awarded by the Math Private Large group are employed in postdocs, while only 16% of new PhDs awarded by the Math Public Small group and 17% of PhDs awarded by the Statistics group are in postdocs.
- 48% of the new PhDs having US academic employment are in postdocs, down from 51% last year.

Looking at Figure E.5, we see that:

- US citizens hold the majority of postdoc positions in the employment sectors of Masters, Bachelors, & 2-Year, and Government and Business/Industry. In other sectors they hold between 41–49% of postdoc positions.
- 22% of the new PhDs in postdoc positions are employed outside the US; the same percentage as 2014–15.
- 71% of the new PhDs employed in Doctoral Math departments are in postdoc positions, down from 75% last year.



Figure E.5: New PhDs Employment by Citizenship, Type of Position, and Type of Employer

\*Includes all Math Public, Math Private, and Applied Math departments

# Excerpt from the Report on the 2015-2016 New Doctorates Recipients

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Figure E.6 displays the US unemployment rate for new doctorates; details on the calculations are on page 781.



Among new doctorates reported to be in the US and whose employment status is known:

- Overall unemployment is 5.9%.
- 6.4% of US citizens are unemployed, compared to 6.7% in fall 2015.
- 5.3% of non-US citizens are unemployed, essentially the same as the 2015 rate.
- New doctorates from the Math Private Small Group reported the highest unemployment rate at 13.7%, essentially unchanged from 13.1% last year.
- New doctorates from the Biostatistics Group reported the lowest unemployment at 2.3%.



## Figure E.7: Percentage of Employed New PhDs by Type of Employer

\* Includes other academic departments and research institutes/other non-profits.

Here are a few notable features of Figure E.7 for 2016.

- US academic hiring increased to 54%, while US nonacademic hiring dropped to 34%.
- Non-US academic hiring dropped to 10% (a five-year low).
- Detailed information on new PhDs employed in the US by degree-granting department group is available on the AMS website at www.ams.org/annual-survey.