









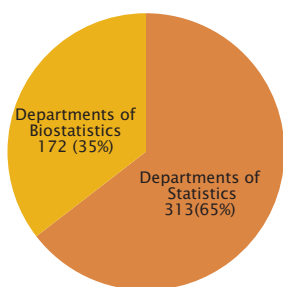




## Ph.D.'s Awarded by Statistics and Biostatistics Departments

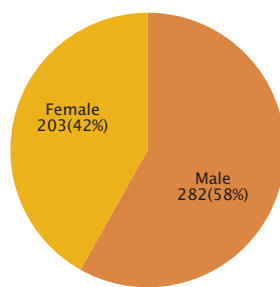
This section contains information about new doctoral recipients in these departments (59 statistics and 36 biostatistics departments). Statistics and Biostatistics departments produced 485 new doctorates, of which all but 6 had dissertations in statistics/biostatistics. This is a 28% increase in the number reported for fall 2011 of 375. In addition, Math Public, Math Private and Applied Math departments combined had 91 Ph.D. recipients with dissertations in statistics. 35% (171) of the new Ph.D.'s in Statistics and Biostatistics departments are U.S. citizens (while in the other groups combined 52% are U.S. citizens). The 90 departments responding last year and this year reported a total of 427 new doctoral recipients, an increase of 4% from last year. The unemployment among this group of new Ph.D.'s is 4.2% up from 3.8%.

**Figure S.1: Ph.D.'s Awarded by Statistics/Biostatistics Departments**



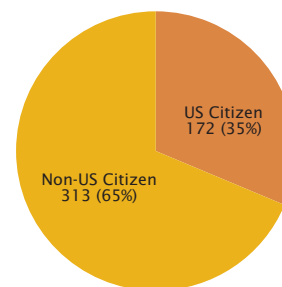
- 27% of all Ph.D.'s awarded were in Statistics/Biostatistics.
- Females account for 38% of statistics and 49% of biostatistics Ph.D.'s awarded.

**Figure S.2: Gender of Ph.D. Recipients from Statistics/Biostatistics Departments**



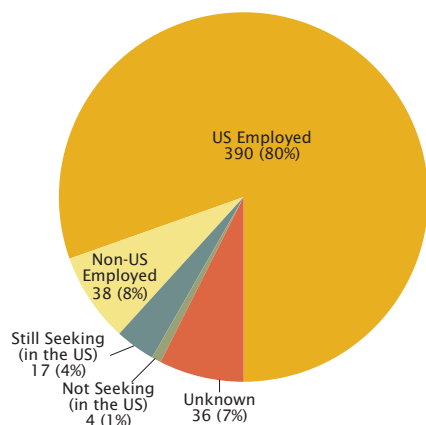
- Females accounted for 42% of the 485 Ph.D.'s in Statistics and Biostatistics, compared to all other groups combined, where 27% are female.

**Figure S.3: Citizenship of Ph.D. Recipients from Statistics/Biostatistics Departments**



- 38% of Statistics/Biostatistics U.S. citizen Ph.D. recipients are females, while in all other groups combined 26% of the U.S. citizens are females.

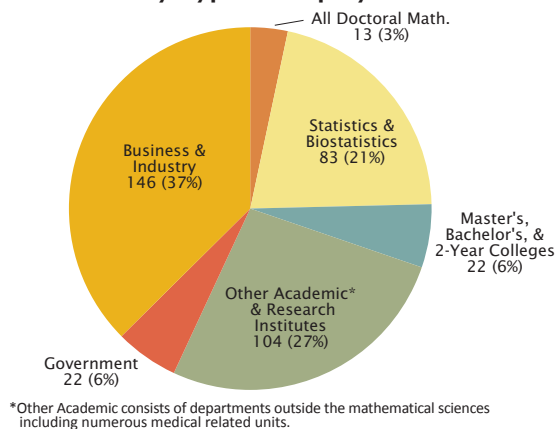
**Figure S.4: Employment Status of Ph.D. Recipients from Statistics/Biostatistics Departments**



**Total Ph.D.'s Awarded: 485**

- 4.2% of Statistics/Biostatistics Ph.D.'s are unemployed compared to 8.1% among all other groups. This is up from 3.8% last year.
- Unemployment among new Ph.D.'s with dissertations in statistics/probability is 4.0%, up from 3.6%. Among all other dissertation groupings 7.0% are unemployed.

**Figure S.5: U.S.-Employed Ph.D. Recipients from Statistics/Biostatistics Departments by Type of Employer**



\*Other Academic consists of departments outside the mathematical sciences including numerous medical related units.

**Total U.S. Employed: 390**

- 37% of Statistics/Biostatistics Ph.D.'s are employed in Business/Industry, compared to 22% in all other groups.
- 32% of those hired by statistics and biostatistics were females, compared to 24% in all other groups.

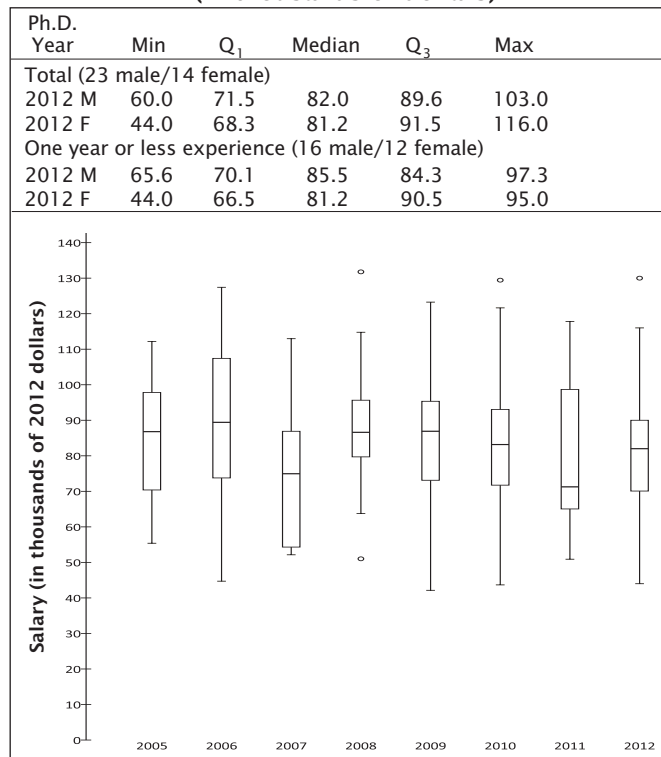




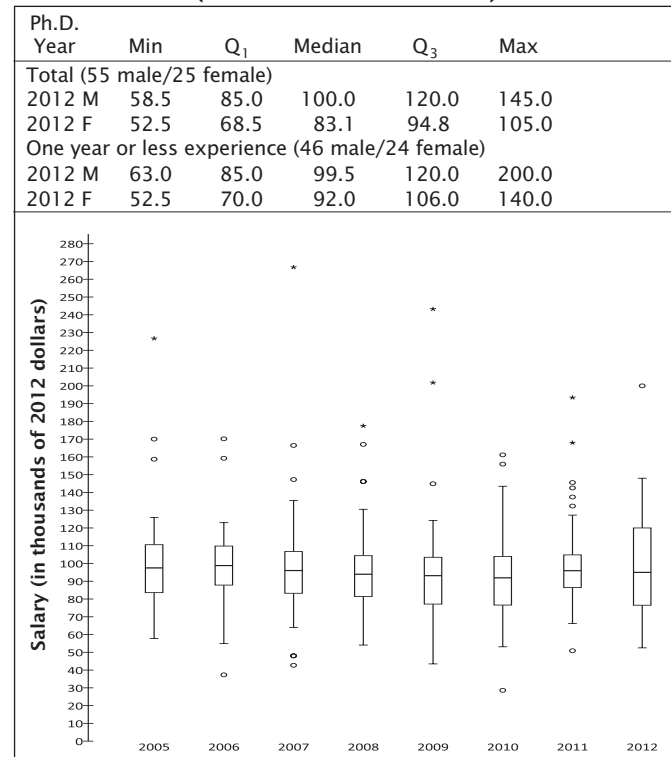


## Starting Salaries of the 2011-2012 Doctoral Recipients

### Government 11-12-Month Starting Salaries (in thousands of dollars)



### Business and Industry 11-12-Month Starting Salaries (in thousands of dollars)



## Remarks on Starting Salaries

*Key to Tables and Graphs.* Salaries are those reported for the fall immediately following the survey cycle. Years listed denote the survey cycle in which the doctorate was received—for example, survey cycle July 1, 2011–June 30, 2012, is designated as 2012. Salaries reported as 9–10 months exclude stipends for summer grants or summer teaching or the equivalent. M and F are male and female respectively. Male and female figures are not provided when the number of salaries available for analysis in a particular category was five or fewer. All categories of “Teaching/Teaching and Research” and “Research Only” contain those recipients employed at academic institutions only.

*Graphs.* The graphs show standard boxplots summarizing salary distribution information for the years 2005 through 2012. Values plotted for 2005 through 2012 are converted to 2012 dollars using the implicit price deflator prepared annually by the Bureau of Economic Analysis, U.S. Department of Commerce. These categories are based on work activities reported in EENDR. Salaries of postdoctorates are shown separately.

They are also included in other academic categories with matching work activities.

For each boxplot the box shows the first quartile (Q<sub>1</sub>), the median (M), and the third quartile (Q<sub>3</sub>). The interquartile range (IQR) is defined as Q<sub>3</sub>–Q<sub>1</sub>. Think of constructing invisible fences 1.5 IQR below Q<sub>1</sub> and 1.5 IQR above Q<sub>3</sub>. Whiskers are drawn from Q<sub>3</sub> to the largest observation that falls below the upper invisible fence and from Q<sub>1</sub> to the smallest observation that falls above the lower invisible fence. Think of constructing two more invisible fences, each falling 1.5 IQR above or below the existing invisible fences. Any observation that falls between the fences on each end of the boxplots is called an outlier and is plotted as  $\circ$  in the boxplots. Any observation that falls outside of both fences either above or below the box in the boxplot is called an extreme outlier and is marked as  $*$  in the boxplot.

## Remarks on U.S. Unemployment Rate Calculations

In the unemployment calculations provided in this report the individuals employed outside the U.S. have been removed from the denominator used in the calculation of the rate, in addition to the routine removal of all individuals whose employment status is unknown. This is a change from Annual Survey Reports prior to 2009. As a consequence, the unemployment rate now being reported more accurately reflects the U.S. labor market experienced by the new doctoral recipients. This change tends to increase the rate of unemployment over that reported in prior years.

In a further small change from prior years, those individuals reported as not seeking employment have also been removed from the denominator. The number of individuals so designated is small each year, and the impact of this change is to produce a slight increase in the rate over that reported in prior years.

The unemployment rates for years prior to 2009 shown in this report have been recalculated using this new method. One can view a comparison of the unemployment rates using the traditional method and the new method by visiting the AMS website at [www.ams.org/annual-survey/surveyreports.html](http://www.ams.org/annual-survey/surveyreports.html).

## Departmental Groupings and Response Rates

Starting with reports on the 2012 AMS-ASA-IMS-MAA-SIAM Annual Survey of the Mathematical Sciences, the Joint Data Committee has implemented a new method for grouping the doctorate-granting mathematics departments. These departments are first grouped into those at public institutions and those at private institutions. These groups are further subdivided based on the size of their doctoral program as reflected in the average annual number of Ph.D.'s awarded between 2000 and 2010, based on their reports to the Annual Survey during this period. Furthermore, doctorate-granting

departments which self-classify their Ph.D. program as being in applied mathematics will join with the other applied mathematics departments previously in Group Va to form their own group. The former Group IV will be divided into two groups, one for departments in statistics and one for departments in biostatistics.

For further details on the change in the doctoral department groupings see the article in the October 2012 issue of *Notices of the AMS* at <http://www.ams.org/notices/201209/rtx120901262p.pdf>.

### Group Descriptions

**Math. Public Large** consists of departments with the highest annual rate of production of Ph.D.'s, ranging between 7.0 and 24.2 per year.

**Math. Public Medium** consists of departments with an annual rate of production of Ph.D.'s, ranging between 3.9 and 6.9 per year.

**Math. Public Small** consists of departments with an annual rate of production of Ph.D.'s of 3.8 or less per year.

**Math. Private Large** consists of departments with an annual rate of production of Ph.D.'s, ranging between 3.9 and 19.8 per year.

**Math. Private Small** consists of departments with an annual rate of production of Ph.D.'s of 3.8 or less per year.

**Applied Mathematics** consists of doctoral degree granting applied mathematics departments.

**Statistics** consists of doctoral degree granting statistics departments.

**Biostatistics** consists of doctoral granting biostatistics departments.

**Group M** contains U.S. departments granting a master's degree as the highest graduate degree.

**Group B** contains U.S. departments granting a baccalaureate degree only.

Listings of the actual departments which compose these groups are available on the AMS website at [www.ams.org/annual-survey/groups](http://www.ams.org/annual-survey/groups).

### Survey Response Rates by New Groupings

Doctorates Granted  
Departmental Response Rates\*

<b>Math. Public Large</b>	26 of 26 including 0 with no degrees
<b>Math. Public Medium</b>	40 of 40 including 0 with no degrees
<b>Math. Public Small</b>	64 of 64 including 10 with no degrees
<b>Math. Private Large</b>	24 of 24 including 0 with no degrees
<b>Math. Private Small</b>	28 of 28 including 5 with no degrees
<b>Applied Math.</b>	30 of 30 including 3 with no degrees
<b>Statistics</b>	59 of 59 including 5 with no degrees
<b>Biostatistics</b>	36 of 36 including 8 with no degrees
<b>Total</b>	307 of 307 including 31 with no degrees