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STATISTICS DEGREES MORE THAN DOUBLE IN LAST FIVE YEARS

Growth trend driven by unmet employer demand for workers with analytical skills

ALEXANDRIA, VA, September 19, 2013—The number of students earning bachelor's degrees in statistical science has more than doubled in the last five years, topping 1,000 for the first time in 2012, says American Statistical Association (ASA) President Marie Davidian.

Additionally, master's and doctorate degrees maintained strong growth, building on a nearly decade-long growth trend, recent data from the National Center for Education Statistics (NCES) show.

Most, if not all, of this growing interest in statistics by post-secondary students is being driven by the promise of readily available and well-paying positions in the private and public sectors after graduation, says Davidian, who is William Neal Reynolds Professor of Statistics at North Carolina State University.

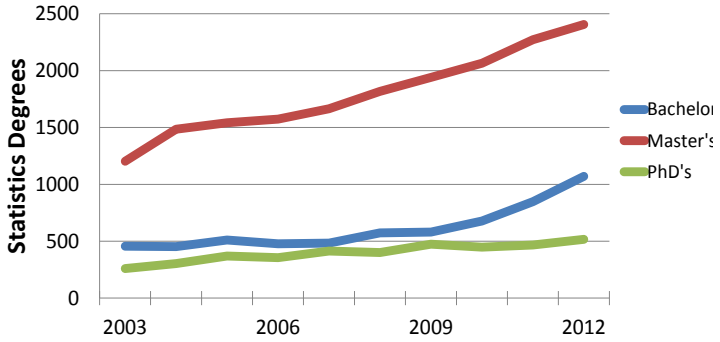

Figure 1: Statistics degrees at the bachelor's, master's and doctorate levels in the United States. These data include the following categories: statistics, general; mathematical statistics and probability; mathematics and statistics; statistics, other; and biostatistics. Source: NCES Digest of Education Statistics (DES), ***http://nces.ed.gov/programs/digest/****.*

Research and real-world examples point to a large and growing demand for workers with quantitative and analytical skills, especially with the advent of the Big Data movement. **A report by noted research firm McKinsey Global Institute** predicts the U.S. will need up to 190,000 new professionals with analytical skills to help manage the Big Data movement and run data analytics and business intelligence operations for private companies and government entities.

Meanwhile, competition for statisticians in the U.S. job market is so fierce that many employers are unable to fill all the available positions. **A recent CareerBuilder survey** found that "jobs tied to managing and interpreting big data" were among the "hot areas for hiring."

"Students are examining the expected future job market and making an informed decision to study statistics at all levels—beginning at the high-school level in the AP Statistics program and continuing through the doctorate level in our nation's colleges and universities," explains Davidian. "These are exciting times to be in the statistical science profession, and we are encouraged that the data show growing numbers of college students will be joining the profession in the near term."

The NCES data also reveal a larger percentage of statistics degrees—40% in total—are conferred to women when compared to graduates in many other science, technology, engineering and mathematics (STEM) fields. An interesting corollary trend the NCES data revealed is that, in 2012, the number of students earning a master's degree in statistics is more than double that of those earning a bachelor's degree—nearly 2,500 versus approximately 1,100.

"This finding suggests that college students who earn a bachelor's degree in another field of study are choosing to pursue a master's degree in statistics because of the overwhelming number of career positions expected in the profession and the promising and rewarding careers that will be available to them after they complete their studies," says Davidian.

Another important consideration for college students in selecting a major is earning potential. **A Burtch Works survey** of nearly 2,700 quantitative professionals published in July found that Big Data workers in non-management roles earn a median base salary of $90,000. The survey also found that salary increases were larger for a professional changing jobs if the person has an advanced degree—an $18,000 raise for an individual with a PhD versus $12,000 for a person with a bachelor's degree.

"Availability of jobs, the diversity of jobs, starting salaries, a low unemployment rate and similar facts help influence a student's college major decision," says Davidian. "Combined, these factors are helping to make statistics a more attractive career choice to today's high-school and college students."

The top five universities in the U.S. conferring bachelor's degrees in statistics in 2012 are the following:

1.	Purdue University-Main Campus	100
2.	University of California-Berkeley	99
3.	University of California-Davis	55
4.	University of Illinois at Urbana-Champaign (tie)	52
4.	University of Minnesota-Twin Cities (tie)	52

About the American Statistical Association

The American Statistical Association is the world's largest community of statisticians and the second-oldest continuously operating professional society in the United States. Its members serve in industry, government and academia in more than 90 countries, advancing research and promoting sound statistical practice to inform public policy and improve human welfare. For additional information about the American Statistical Association, please visit the ASA website at www.amstat.org.

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For more information:
Jeffrey A. Myers
Office: (703) 684-1221, Ext. 1865; Mobile: (540) 623-7777
Email: **Jeffrey@amstat.org**