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## STATISTICIAN PROJECTED AS TOP 10 FASTEST-GROWING JOB

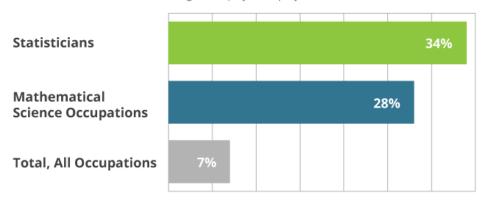
Colleges and universities expand statistics and data analytics programs to meet growing demand

ALEXANDRIA, VA, January 18, 2016 – Statistician is projected to be one of the fastest-growing jobs in the U.S., according to the U.S. Bureau of Labor Statistics, following over 15 years of already strong employment growth in the field.

The Bureau of Labor Statistics (BLS) projects that employment of statisticians will grow 34% from 2014 to 2024, compared to 28% for mathematical science occupations, and 7% for all occupations. The field ranks 9<sup>th</sup> on the Department of Labor's list of 20 fastest-growing occupations. Statistician is one of only four non-healthcare STEM (science, technology, engineering and math) jobs to appear on the list.

## STATISTICIANS

Percent change in employment, projected 2014 - 24



Note: All Occupations includes all occupations in the U.S. Economy

Source: U.S. Bureau of Labor Statistics, Employment Projections program

Total employment for statisticians grew 54% since 2000, from <u>17,520</u> to <u>26,970</u>, according to the <u>BLS</u> <u>Occupational Employment Statistics</u>. <sup>1</sup> The <u>American Statistical Association</u>, the largest professional

<sup>&</sup>lt;sup>1</sup> Year to year comparisons are only approximate due to the nature of the Occupational Employment Statistics (OES) estimates as well as design and methodology changes over the years:

association of statisticians, attributes this growth to a greater appreciation for the role of statistics—the science of learning from data, and of measuring, controlling, and communicating uncertainty—by business, government and nonprofit organizations.

While this growth is impressive, it understates the number of jobs available to people with expertise in statistical science. Jobs such as data scientist, actuary and market research analyst, for instance, require some level of proficiency in statistical science. Together, these careers account for hundreds of thousands of high-skilled jobs.

The strong demand for people who can work with and analyze data has led to increased wages for statisticians. Mean annual wages for statisticians grew 12% between 2000 and 20141 in inflation-adjusted dollars, according to data from the BLS. For a majority of other workers during this period, which includes the Great Recession, wages remained flat or dropped.

"We often hear that wages are declining or remaining flat for many workers in the U.S., but that's not the case for statisticians. People with degrees in statistics are highly sought after for their ability to analyze and interpret data and to understand risk and uncertainty," says American Statistical Association President Jessica Utts.

In response to the demand for statisticians, colleges and universities across the nation are expanding their statistics programs. The number of universities granting degrees in statistics increased 50% for bachelor's degrees and 20% for master's degrees from 2003 to 2014.<sup>2</sup> From 2000 to 2014, master's and doctorate degrees in statistics grew at 260% and 132% respectively.<sup>3</sup> Statistics has become one of the <u>fastest-growing degrees</u> in the United States.

The demand for statistics courses among non-statistics majors also is increasing. Elementary-level statistics enrollments in fall 2010 exceeded the levels of fall 2005 by 50%, from 54, 000 to 81,000, according to a survey by the <a href="Conference Board of the Mathematical Sciences">Conference Board of the Mathematical Sciences</a>. The <a href="Daily Pennsylvanian reported in October">Daily Pennsylvanian</a> reported in October 2015 that the statistics concentration at University of Pennsylvania's Wharton School is "bursting at the seams" with growing demand from business students.

Data science programs—for which statistics courses are a <u>fundamental element</u>, along with computer science—are being offered for the first time. Several universities recently established such programs, including the University of Michigan; the University of California, Irvine; the University of Washington; and Kennesaw State University.

http://www.bls.gov/oes/oes\_ques.htm#qf1. For the employment figures, data from the Current Population Survey, which defines statistician differently, show a doubling of the number of statisticians from 2007 to 2014. It should also be noted that the Occupational Outlook Handbook program, which estimates the 34% growth for 2014-2014, estimates an employment of 30,000 statisticians in 2014 because of its inclusion of self-employed workers.

<sup>&</sup>lt;sup>2</sup> http://community.amstat.org/blogs/steve-pierson/2015/09/03/statistics-and-biostatistics-degree-data-updated-to-include-2014-numbers (Figures 1 and 2)

http://magazine.amstat.org/blog/2015/10/01/statistics-degrees-continue-strong-growth/

The BLS Occupational Employment and Wages report (May 2014) includes data on statistician employment by geographical region. (See thumbnail image.) Metropolitan areas with the <a href="highest employment of statisticians">highest employment of statisticians</a> include Washington, DC; Boston; Philadelphia; New York; Bethesda, Maryland; Seattle, Los Angeles, San Francisco, Durham-Chapel Hill, North Carolina; and Minneapolis.



## **About the American Statistical Association**

The American Statistical Association is the world's largest community of statisticians and the secondoldest 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 <a href="http://www.amstat.org/">http://www.amstat.org/</a>.

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