Master of Science in Applied Statistics and Data Analytics (MASDA)

Department of Statistical Science
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SMU

Question: What has Hal Varian, chief economist at Google, predicted will be the "sexy" job of the next decade?

Answer: STATISTICIAN

A Booming Job Market

The explosion of data from devices such as sensors, cell phones, and medical instruments, as well as from business processes, surveys, and social media has created an accelerating demand for specialists who are trained in data collection and analysis. As a result, the field of statistics will be increasingly more fundamental to academia, business, and government in order to accommodate the escalating dependence on data-driven decisions.

Therefore, even in the current overall downturn in the job market, statisticians are highly sought-after. Consider the following:

- A 2011 report by a private consulting firm projected a necessary increase of nearly 200,000 professional statisticians (a 50% increase) by 2018.

- A recent salary survey found that the middle fifty percent of masters' statisticians have annualized salaries between $95,000 and $155,000.

- IBM has created a Business Analytics and Optimization Services Group in order to capitalize on the need to analyze large quantities of data. There were 200 in this group in 2009, and reports are that IBM plans to "retrain or hire" 4,000 more such analysts.

A Wide Variety of Career Options

An attractive aspect of the statistics profession is the wide variety of problems that can be addressed.

Statistical decisions are fundamental to current research in nearly all academic disciplines. Government agencies, such as the Census Bureau and Food and Drug Administration, recruit statisticians. Many statisticians work at banks and insurance companies to assist in modeling financial data. There is a large demand for biostatisticians, statistical specialists typically employed

at medical schools or research hospitals, who work with researchers in designing studies along with collecting and analyzing data related to biology- or health-related problems.

The following is a list of contemporary research problems requiring increasingly sophisticated statistical analyses - and statisticians to develop creative solutions.

- Analyzing brain image data in order to detect regions of healthy or impaired brain activation. (Medicine)

- Determining fair ways to evaluate teacher effectiveness using their students' scores on standardized exams. (Education)

- Developing methods for collecting data to identify the health, educational, and transportation needs of local communities. (Government)

- Quantifying the wants and needs of customers using data from field experiments, focus groups, point of sale information, or sample surveys. (Marketing)

A statistician need never be bored! Every new problem provides a chance to work with and learn from people who are experts in their fields and to make important contributions to their work.

Interested? Our MASDA degree prepares graduates to work as data managers and analysts in a wide variety of fields.

Admission Requirements: Applicants must hold a Bachelor's degree, must have taken a course in statistics, and must have taken calculus courses through multivariate calculus. Excellent English communication skills are required.

To Apply: Check out our website at http://www.smu.edu/statistics for more details. Applications for the MASDA program are processed through the Office of Research and Graduate Studies. Application forms may be downloaded from the following web site: http://smu.edu/graduate/forms.asp .