

Make your mark on the world with statistics

**“GOOD with numbers? Fascinated by data?
The sound you hear is opportunity knocking.”**

The Age of Big Data, The New York Times, February 11, 2012



Sarah Bulkeley,
BA/BSc

Statistics is the human side of the computer revolution – the art and science of extracting meaning from data – a tool that enables us to understand the increasingly complex world we live in.

Statistics – riding the wave

The amount of data collected by organisations grows daily. Yet data is of little value unless it is turned into information that can be used to make better decisions, improve our performance and achieve better outcomes.

Using statistics to turn data into information that can be used to improve our future is essential for New Zealand – and for the world.

Predicted worldwide shortage of statistical expertise

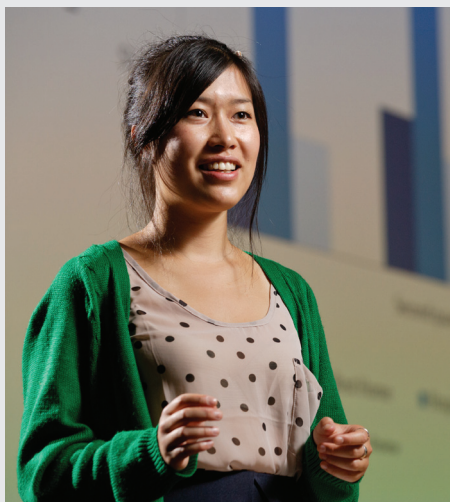
“By 2018, the United States alone could face a shortage of 140,000 to 190,000 people with deep analytical skills as well as 1.5 million managers and analysts with the know-how to use the analysis of big data to make effective decisions.”

McKinsey Global Institute,
May 2011, from their report
“Big data: The next frontier for innovation, competition, and productivity”

By adding to our understanding of the world around us, statistics graduates can make a real difference. Through their work, they contribute to improvements in health, education and welfare, to the design of new products and services, to the identification of new policy initiatives and to better ways of managing our natural resources.

Not surprisingly, good statistics graduates are in demand and this was further confirmed by a study conducted in 2011 by the Department of Statistics at The University of Auckland. 43 local employers of statistics graduates were interviewed from organisations as diverse as Mighty River Power, Westpac, local government, Fisher & Paykel and Inland Revenue. For a copy of the full report see www.stat.auckland.ac.nz/pathways

Change is all around us. To ride the wave of change – to contribute to leading edge changes and improvements in the world around you – take statistics.



“I’m an associate in Sydney for Bain & Company, one of the top three management consulting firms in the world. I couldn’t have possibly asked for a better company or a better industry to start my career in.

Statistics is everywhere. We’re in the era of big data, where there is an abundance of information. But most of the time no one really knows how to even begin to interpret all the data that’s freely available. A major in statistics allows you to be able to dissect all the data that’s around us and turn it into a form that’s useful and easy to understand. It’s a really valuable skill to have.”

Jessie Lin, BCom/BSc, Associate,
Bain & Company



"I have been interested in statistics since high school and find it empowering that we are able to identify and explain relationships that occur in data.

I chose to study at The University of Auckland because I heard it had one of the top statistics departments in New Zealand, which would provide me with some of the best mentors to guide my tertiary education.

I worked on a summer project that involved determining cardiovascular risk and how it was related to diabetes. I enjoyed learning about the intricacies of the heart and gaining experience in the medical statistics field."

Emma Gullery, BSc (Hons) currently studying for an MSc in Medical Statistics



"Part of my job as an Insights Analyst at Fonterra is to use statistics to identify ways we can be more innovative with our products. I work in Global Ingredients and Foodservices. I also look at opportunities and threats, and create a lot of presentations that offer other staff insights into the whole picture about the market, customers and competitors. One of my presentations will be viewed by Coca Cola, USA, one of the biggest companies in the world.

Fonterra puts huge effort into hiring the right people with the right background. Everyone in an analytical role in my team has a statistics background - that says it all.

I chose The University of Auckland because I believed it was the best in New Zealand. Its world ranking was important too. My first statistics class turned out to be great fun - it was one of the best decisions I ever made in my life."

**Eun-Hee Park, BSc (Hons)/MSc,
Insights Analyst, Fonterra**



"I chose to study at The University of Auckland because it is the most prominent and highest rated University in New Zealand.

I decided to major in Statistics as it is a very useful accompaniment to my Economics major. My Statistics Summer Scholarship working with COMPASS (Centre of Methods and Policy Application in the Social Sciences) gave me the opportunity to work with a great group of people and apply my statistical knowledge in a real world application."

Alex Marks, BCom/BA

With good statistical skills you can contribute to:

- medical and scientific breakthroughs
- the introduction of new policy initiatives
- an improved understanding of ecological habitats
- the marketing and strategic direction of companies
- optimising the processes used to deliver products and services to market
- maximising the returns on funds invested
- improving productivity.

The University of Auckland – The best in teaching and innovation

The Statistics Department at The University of Auckland has won two national awards for teaching excellence.

"The quality of the lecturers in the Statistics Department was phenomenal."

Mark Emmett, BSc, Senior Insights Analyst, Twenty Limited

"The department is also known for the quality of resources it offers its students, for being highly innovative, and for being responsive to students' needs."

"The University of Auckland Statistics Department has superb lecturers, insightful yet entertaining lectures, extensive educational resources and a top class research environment."

Chit Hock Choo, BSc(Hons)/MSc, Senior Modelling Analyst, ASB Bank

Enhance your career with statistics

When you decide what to do at university, don't just focus on one area. Identify ways of enhancing your employment opportunities, like taking additional papers in statistics. You can do this as a second major or minor, or as a conjoint (or second) degree. Whatever you choose, statistics can lead to some of the most interesting and exciting roles in:

- finance and banking
- marketing and market research
- operations research and business analysis
- actuarial work
- biology and ecology
- medical research
- organisational psychology
- policy development (government).

"It would be hard to find another subject that is so widely applicable and useful to employers across the globe as statistics."

Nick Gray, BCom/BSc, Long Term Interest Rate Trader, Deutsche Bank

Front cover:

"I chose to study statistics and psychology at university because they fit really well together. Everything we prove in psychology uses statistics. Everyone thinks it's a weird combo, but to me it's so obvious!"

In the future, I'd like a job in marketing or consulting where I could analyse data to understand more about why humans behave the way they do.

Through The University of Auckland's student exchange programme, I was able to study at the University of Glasgow in 2009 and 2010. It was a fantastic opportunity. It was so exciting to be living overseas, experiencing a new culture and city. I studied in a world-renowned psych department, met heaps of awesome new people, joined the swimming and water polo teams and played against universities all over Scotland."

Sarah Bulkeley, BA/BSc

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"Statistics was a natural choice for me. I'm fascinated by the magic of numbers and working with them is like a game."

My job is as an actuarial analyst for insurance company, Sovereign, working with both the financial reporting and reinsurance teams. The latter involves dealing with large overseas insurance companies to ensure that Sovereign has enough protection against large losses and can always provide cover to its customers."

**Marina Ivanova, BSc (Hons)/MSc,
Actuarial Analyst, Sovereign**



"Staying on at university to do my Honours in statistics is one of the best decisions I've made. My courses ranged from the theoretical to the very applied – working on statistical consulting projects and issues in marketing and medical statistics. Over the course of the year I worked on advertising revenue, renal failure, genetic data, geyser eruptions, clinical trials and magazine sales – just to name a few! The Statistics Department at The University of Auckland provides a great working environment with friendly staff and students, excellent resources and opportunities to be involved with leading research."

In this exciting era of 'Big Data', statistics really does equip you for an endless array of challenging and rewarding employment or research opportunities."

Pieta Brown, LLB/BSc (Hons) in Statistics