

The magic of numbers

Actuarial analyst Marina Ivanova says she's "fascinated by the magic of numbers" and sees working with them as fun – "like a game. I enjoy using my statistical knowledge and skills to answer practical questions".



Sammie Jia, a biometrician, loves the way his work touches on consumer behaviour – he's looking at data collected from a taste-test of a new type of kiwifruit. "Modelling human behaviour is fun! I know my work makes a contribution to New Zealand horticulture, and that feels good."

Marina, who works for insurance company Sovereign, and Sammie, who works at the New Zealand Institute for Plant and Food Research, are among recent Department of Statistics graduates featured in "Making my mark on the world with statistics".

They are joined by a current student and five graduates now using their statistical skills in jobs as varied as secondary school teacher, medical researcher, "customer intelligence manager" (market researcher) and risk analyst.



Chris Triggs, head of The Department of Statistics at The University of Auckland, says the range of careers in statistics is far broader than secondary school students often realise. The department hopes the insert and the posters will help give students a stronger sense of the possibilities.

"Studying statistics can help get you into good careers in fields like market research, finance, engineering, psychology, health research, sport and even crime-fighting. We have graduates using their statistical skills for organisations like Telecom, Microsoft, Fonterra, Middlemore Hospital, Westpac and even the Silver Ferns national netball team."

Statistical skills will always offer an advantage in a competitive job market. "Thanks to computers and the internet, we've got more numerical information being collected than ever before – it might be costs, sales volumes, ratings, incidence of disease, energy output, or market shares," says Chris. "But without statisticians to extract meaning from the data, we don't know the story it's telling."

Statistics is also a science of the real world, he says. "Statistics helps tackle a huge range of issues from how much a ticket price should be to the best ways to fight cancer."

Chris says that studying statistics has personal benefits as well. "Statistics gives us tools to look critically at information presented to us as fact – and that's useful to all of us in our professional and private lives."

The Department of Statistics at The University of Auckland is the largest department of its type in Australasia, offering a full range of courses to more than 6,000 students this year. It's the birthplace of R, a free software package for statistical computing and graphics that has taken the world by storm.

The single most popular paper at the University is the stage one statistics paper STATS101 – it's taken by nearly half the students. Chris says the department aims to be student-centred, and has twice won a National Tertiary Teaching Award for undergraduate teaching.



Making my mark on the world with statistics

Sarah Bulkeley
Bachelor of Arts (Psychology) and Bachelor of Science (Statistics) student

"I enjoyed maths and stats at high school – I'm a numbers person and always enjoyed those subjects because I could see their real-world implications. I chose to study statistics and psychology at university because they fit really well together. Everything we prove in psychology uses statistics to provide evidence. Everyone thinks it is 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 scheme, Auckland Abroad, 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."



Lovina McMurchy
BA (Psychology), Diploma in Statistics, MA in Mathematics (Auckland), MBA (Harvard)

"I work for Microsoft as General Manager Consumer and Online in Latin America. That means I'm responsible for personal computer, phone and online services and advertising in countries like Mexico, Brazil and Argentina."

"I think there are things about my personality that suit me to statistics. I like accuracy and having the right answer. And I like having the skills to know when someone is trying to pull the wool over your eyes."

"What I really enjoy about statistical work is diving into financial models and using them to understand how to improve profit. Our most senior managers are, at heart, math geeks – the kind of people who can do calculations in their heads and understand the implications of different strategies. Statistics, with its real-world focus, is particularly good training for that."

"The academic and personal attributes that I think lead to success in this sort of career are strong quantitative skills as well as strong communication skills. They're a killer combination."

For more information on statistics as a career and what The Department of Statistics offers, see www.stat.auckland.ac.nz

For more posters or copies of the flyer, *Making my mark on the world with statistics*, email office@stat.auckland.ac.nz



THE UNIVERSITY OF AUCKLAND

FACULTY OF SCIENCE

Department of Statistics