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.