

## Covering message for AMSI's *Maths Ad(d)s* 2016

**Australia's Chief Scientist  
Dr Alan Finkel**

Do what you enjoy. That's my standard answer to students, especially when they are considering a mathematics, science, technology or engineering degree. Career opportunities are evolving at a rapid rate and these subjects will open doors to an ever-expanding range of careers. Studying mathematics and other STEM subjects will serve you well, even if you don't yet know where they will take you.

Quantitative skills, analytical thinking, problem solving and the achievement of deep discipline knowledge are applicable to all jobs, even if the work is not directly in the area in which you train.

It is my pleasure to commend the Australian Mathematic Sciences Institute (AMSI) for producing this annual publication to promote mathematics education and careers, and for developing a new searchable web version.

In Australia, more mathematics graduates work as software and applications programmers than as mathematicians and statisticians. Fifteen per cent work in financial and insurance services, and 24 per cent in education. These jobs pay well. Around a quarter of mathematics graduates (and STEM graduates generally) are in the highest income bracket. If you choose mathematics, you are on the right track.

In our country, English is the language of discourse, philosophy, friendship and politics. In every country, mathematics is the language of science, engineering, technology, ICT, health, commerce and more. I studied electrical engineering before doing postgraduate and postdoctoral research in electronic engineering and neuroscience. It would have been completely impossible for me to pursue my research interests in the communication between brain cells and the enabling electronic instrumentation without a sound understanding of mathematics.

Many of the jobs listed in *Maths Ad(d)s* didn't exist when I was deciding what to study at university, and we can only estimate and imagine what the jobs of the future will be. But we can be sure of the need for a steady supply of mathematically-trained graduates and a workforce and community with the mathematical skills required for the challenges of the future.

Whatever you decide to study, prepare yourself well. Choose to study intermediate or advanced mathematics in Year 12. With a solid grounding in mathematics and English you can aspire to any university course and career you choose.