

# How will Australia's maths deficit affect your sector?

There are significant retention problems at various stages in the study and research training pipeline in mathematics and statistics. These problems choke the supply of mathematically competent professionals in all STEM\* disciplines and limit private sector access to a group which drives innovation in our competitor economies.

Australia's international position in school mathematics performance has **declined** sharply

## A national urgency

"Most nations are closely focused on advancing STEM, and some have evolved dynamic, potent and productive strategies.

Australia lacks the national urgency found in the United States, East Asia and much of Western Europe, and runs the risk of being left behind."

Chief Scientist of Australia,  
Prof. Ian Chubb

### Year 12

advanced maths enrolments have dropped by

**22%**

from 2000 to 2012

and by

**34%**

from 1995 to 2012

Undergraduate and postgraduate enrolments in mathematics and statistics have been **stagnant for the last 3 years**

Australia's PhD graduation rate in the mathematical sciences is **one of the lowest** in the OECD and at **half the OECD average**

**35%**

International students make up around 35% of all PhD enrolments in the mathematical sciences with domestic enrolments in decline

**54%**

of Australian adults have only basic numeracy skills at best, below the OECD average

## Impacts on Australian industry

Supply of high-end analytical research expertise – **LIMITED**

Innovation and productivity – **STUNTED**

Local and global market share – **DECREASED**

Retention of skilled workforce – **DECREASED**

Expat PhD students return and prosper in competitor markets – **LOST SKILLS**

\* Science, Technology, Engineering and Mathematics (STEM)

Note: See [www.amsi.org.au/discipline-profile-2014](http://www.amsi.org.au/discipline-profile-2014) for indepth analysis and references