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SUM OF ALL FEARS

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EDUCATION NOW EDITOR

THE number of students studying maths and science across the country is falling to dangerous levels, prompting warnings of a critical shortage in skilled workers, particularly in South Australia.

The Group of Eight Review, carried out by eight of the nation's top universities, including the University of Adelaide, yesterday delivered an alarming picture of maths and science in schools.

It says students are losing interest in maths and science in primary

Unis warn of skills crisis

school, leading to a decline in Year 12 advanced maths students going on to degrees in skills shortage areas such as engineering and economics.

Professor Peter Dowd, from the University of Adelaide, warned the state would not be able to produce "even half" the engineers needed for major defence and mining projects.

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University chiefs warn of key skills disaster

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"The minimum engineers we need is something like 20,000 in the next five to 10 years ... at the current rates we couldn't produce half that amount," he said.

"Once big projects like defence and mining ... start in SA we will need engineers, but we are not producing enough in this state to fill these positions."

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"We are in danger of falling SA is a bit behind Victoria and NSW in the number of students actually coming through the (education) system with a reasonable set of enabling quantitative skills," Prof Brown said.

The review calls for pri-



IN DEMAND: Mining projects will require more workers.

mary school teachers to be given extra resources to make maths and science "fun" and "exciting" for students and to stop referring to advanced maths as "advanced" or "specialist", because it creates the perception that only "smarter kids" can cope with the subject.

It also recommends remedial classes in advanced maths and science at the beginning of university, to

allow Year 12 students who shunned the subjects the chance to still study maths and science-based degrees.

Universities risk having to lower standards, dropping Year 12 maths and science as prerequisites to encourage more students to apply for courses like engineering.

"We are starting at the supply chain ... something is going on in the primary years in Australian kids just are not

enjoying maths," Prof Brown said. "The percentage that are then flooding out of advanced maths by Year 12 is quite frightening."

The Review of Education in Mathematics, Data Science and Quantitative Disciplines also shows

FROM 2001 to 2007, the number of students enrolled in a mathematics major in Australian universities fell by about 15 per cent.

THE number of students taking advanced maths at high school fell by 27 per cent between 1995 and 2007.

INDUSTRY demand for mathematics and statistics graduates was predicted to grow by 3.5 per cent a year until 2013.

A POSITIVE attitude towards maths drops by half between Year 4 and Year 8.

IN 2007, 40 per cent of senior maths teachers did not have three years of university study.

Prof Dowd said the shortage of maths and science teachers also needed to be

addressed, in order to ensure students were being taught by highly-skilled teachers who were passionate about science and maths.

"The Government is offering all sorts of programs and incentives (to students, but it hasn't made much difference," he said.

Prof Dowd said the University of Adelaide was working on initiatives, including inviting maths and science teachers into the university to re-engage them in the subjects.

Prime Minister Kevin Rudd last month promised a re-elected Labor Government would recruit and train up to 250 specialist maths and science teachers for SA high schools.

POLL

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