

MEDIA RELEASE

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Declines in study of science and mathematics confirmed

A new report released today by the Australian Council for Educational Research (ACER) has confirmed that Australia faces significant challenges in boosting participation in science and mathematics studies in school education, university studies and in the teaching workforce.

The report provides updated figures on:

- the performance of Australian school students in science and mathematics;
- participation in science, mathematics, and technology in the final year of secondary school;
- university participation in science and technology studies; and
- teachers, teaching and education in science, technology and mathematics.

Participation in senior secondary school science has declined over the 30 year period from 1976 to 2007. There is also evidence from every State and Territory of declines since the mid 1990s of participation in the advanced levels of studies in mathematics. These trends continue the declines noted from earlier periods.

Commenting on the findings, the report's lead author, ACER Deputy CEO (Research) Dr John Ainley, said strengthening science curriculum in school was a key to generating higher levels of participation in science-related studies at university.

"The content and process of science curriculum in secondary school needs to relate more strongly to the experience of young people and connecting what is studied in schools to the emergent fields of science such as biotechnology," Dr Ainley said. "Stronger use of curriculum resources at primary school level is also required."

The report suggested that schemes to off-set Higher Education Contribution Scheme (HECS) charges may provide an incentive to attract science graduates to teaching even if that is not always for a lifetime career.

The report was commissioned by the Australian Government Department of Education, Employment and Workplace Relations to update and extend the Background Data and Analysis component of the 2003 report *Australia's Teacher's: Australia's Future – Advancing Innovation, Science, Technology and Mathematics* to include new data that have been published or become available since its publication.

The report, *Participation in Science, Mathematics and Technology in Australian Education*, by John Ainley, Julie Kos and Marina Nicholas is published as ACER Research Monograph 63. The full report is available from the ACER website at http://www.acer.edu.au/research_reports/monographs.html

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