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Dear Readers

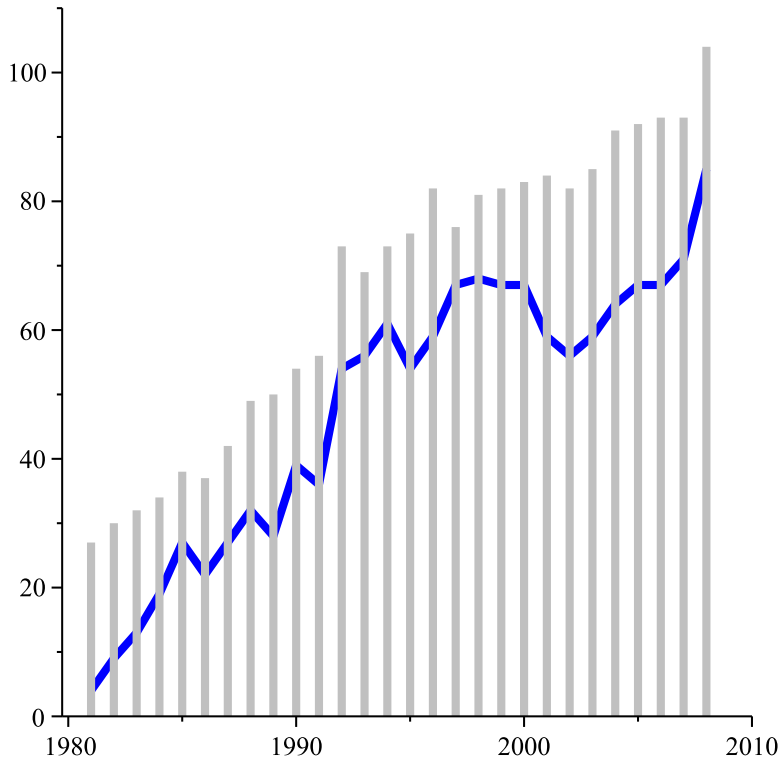
There has been much said in the popular media about declining standards and participation in secondary school mathematics in Australia. In this issue we celebrate a positive secondary school mathematics news story.

There has been no decline in performance at the elite level of the 48th UNSW School Mathematics Competition. In this issue we celebrate those outstanding young mathematicians, and their teachers and schools, who received prizes and commendations in the competition. Unlike conventional mathematics exams, that test proficiency and efficiency in solving routine questions. The competition questions are developed along the lines of Mathematical Olympiad questions to tease out mathematical insight and ingenuity.

Problem solving, mathematical insight and ingenuity are all essential requirements to be successful in mathematical research and it is perhaps no surprise that many of the world's top mathematical researchers were previous high acheivers in the International Mathematical Olympiad for high school students. The top research honour in mathematics is the Fields Medal and eight winners of this medal had previously won medals at International Mathematical Olympiads.

Two of the major prize winners in the 48th UNSW School Mathematics Competition, Sampson Wong (1st prize) and Stacey Law (equal 2nd prize) were members of the Australian Olympiad Team that competed at the International Mathematical Olympiad held in Bremen, Germany this year. Sampson won a gold medal and Stacey won a bronze medal at the 2009 International Olympiad.

At the risk of feeding the popular media obsession with league tables it is interesting to consider how Australia is performing at the elite level of International Mathematical Olympiads relative to the rest of the world. The plot below shows one (albeit crude) measure of this. This plot shows the number of teams competing in the International Mathematical Olympiad (vertical bars) and the ranking of the Australian team in this cohort (continuous solid line) for each year that Australia has competed. There is no decline in standards at this level.



In September this year Professor Terence Tao, from the University of California, Los Angeles, visited the UNSW School of Mathematics and Statistics and gave a public lecture on 'Randomness in Prime Numbers'. Terry Tao is Australia's most famous mathematician. He was born in Adelaide, South Australia where he did his schooling and undergraduate mathematics studies. Terry was also a former member of the Australian Mathematical Olympiad team winning bronze, silver and gold medals in successive years 1986, 1987 and 1988. In 2006 Terry Tao was awarded a Fields Medal 'for his contributions to partial differential equations, combinatorics, harmonic analysis and additive number theory.'

B.I. Henry
Editor