

Thursday October 6 2011

Response by the Australian Mathematical Sciences Institute (AMSI)
to the
Commissioned Study into the Impacts and Benefits of COAG Reforms
September 2011

AMSI is the collaborative enterprise of Australia's mathematical sciences, with a strong record of achievement in the areas of research and higher education, school education and industry. As a leading provider of mathematics education initiatives, including the highly successful ICE-EM Mathematics textbooks and professional development, careers materials and teacher content modules, we have the capacity to develop programs across education jurisdictions. AMSI is well placed to comment on mathematics education reform, with an outstanding track record in the mathematical sciences in Australia.

Given COAG's commitment to addressing the challenges of boosting productivity, increasing workforce participation and mobility and delivering better services for the community, we feel that the targeted programs have not achieved these aims as well as they might have:

- National programs are devolved to the States who cannot successfully scope and deliver on national priorities.
- The States have little capacity to work with national organisations such as AMSI
- AMSI has the mathematical capacity that cannot generally be found in State Education Departments.

A submission has also been made by AMSI to the recent Productivity Commission study 'Education and Training Workforce: Schools'. This is available at:
<http://www.pc.gov.au/projects/study/education-workforce/schools/submissions>

The area that matches AMSI's initiatives are the National Partnerships related to education, which falls under the broader human capital stream. We understand that it may not be possible to make a full assessment of an area of the human capital stream such as education, since some of the impacts are yet to be realised. We do, however, feel that it is not practical to wait until the impacts are known before acting further.

AMSI, through The Improving Mathematics Education in Schools (TIMES) Project which was funded by the Australian Government through the Department of Education, Employment and Workplace Relations (DEEWR), has contributed directly to the areas covered by the following initiatives:

- National Partnership Agreement on Literacy and Numeracy
- National Partnership Agreement on Low Socio-Economic Status School Communities
- National Partnership Agreement on Youth Attainment and Transitions

In a period of just under two years AMSI delivered:

- School mathematics support in 6 Outreach clusters comprising 54 schools – 13 Secondary Schools, 38 Primary Schools, 3 P to 12 Schools
- 123 days of professional development in the first six months of 2010, 93 days of professional development in the second half of 2010 - 216 days in total
- 68 Teacher Content Modules, equating to over 3000 pages of material designed to elevate the content knowledge of primary teachers, secondary mathematics teachers and secondary teachers teaching out of area
- A website hosting Teacher Content Modules: www.amsi.org.au/teachermodules providing national support for the teachers implementing the Australian Curriculum
- Teacher Content Modules uploaded to 'Scootle' via Education Services Australia
- Regional Department of Education and key stakeholder support for an intervention program designed to enhance the teaching and learning of mathematics
- An assessment of 28 existing careers resources and interviews with over 100 stakeholders involved in careers education
- 10 three-minute videos of 12 careers requiring mathematics
- 12 posters featuring profiles of the mathematics requirements of different careers
- A careers website www.mathscareers.org.au
- A 24-page booklet with 20 profiles of people demonstrating that mathematics is essential to their work and to a successful career
- 25 000 careers booklets, 264 000 posters and 9700 careers video DVDs
- careers packs to every school in the country.

Though successful, the need for expansion of the programs initiated through the TIMES Project is evident. AMSI is a national organisation who delivered nationally on all components. We have contributed a great deal to the growth of mathematics understanding in Australia's teaching workforce and in students in our schools.

AMSI has sought to participate with the states in achieving the goals of the national partnerships, but have been told that programs have allocated funds towards program priorities at the state level, and that AMSI's skills and expertise are not required to deliver this.

Implementation Plans for the human capital stream are often jurisdiction specific. The State splitting of the reform agenda weakens it. Keeping monies in-house does nothing to serve the national agenda intended by the national partnerships. A coordinated national program is needed. A component of the National Partnerships needs to be designed to deliver the benefits that AMSI and other national agencies can bring.

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