Australian Geoscience Council Inc.
The Council of Earth Science Societies in Australia
AGC

7 Landsborough Street
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The Secretary,
Senate Employment, Workplace Relations
and Education References Committee
Suite SG.52, Parliament House
CANBERRA, ACT 2600

Dear Mr. Carter

Submission by the Australian Geoscience Council to the Senate Inquiry into Higher Education Funding and Regulatory Legislation

Introduction

The Australian Geoscience Council is a consortium of nine societies, with a combined membership of more than 7500 professional geoscientists. Our members work in diverse fields, embracing earth resource exploration (minerals, coal, oil and gas), environmental monitoring and remediation, geotechnical investigations, hydrogeology including groundwater management, teaching, and strategic and applied research.

We must have an appropriate skills base and research facilities to ensure that innovation continues to drive the resource industries and contribute to an environmentally sustainable Australia. To achieve this we need a world-class university system that can nurture and develop our human and intellectual capital.

We are therefore vitally concerned with the health of the Australian university sector, particularly in the core geoscience disciplines of geology, geophysics and geochemistry, along with the associated technologies such as mining engineering, mineral processing, and environmental management. These subjects are crucial to the economic well-being of Australia, now and in the foreseeable future, and will be major contributors to "An Environmentally Sustainable Australia", one of the national research priorities announced in December 2002.

We appreciate the opportunity to provide input to this current inquiry and our comments are made in the context of the ***Backing Australia's Future*** (BAF) document.

The AGC is supportive of many of the main thrusts proposed in the BAF document but we believe there are opportunities to improve the actions being proposed. We also have concerns over some of the proposals. These matters will be addressed with respect to the Terms of Reference of this Inquiry.

ToR 1: The principles of the Government's higher education package

The principles of ***sustainability, quality, equity and diversity*** in teaching and research at universities are very important in developing appropriate strategies for moving forward in the Higher Education Sector. The Australian Geoscience Council believes that the government should provide the environment and the resources for these four principles to be developed so that we can look forward to a sustainable and prosperous future.

However, although the principles are very commendable, the actions outlined in the BAF document to meet the aspirations appear to fall short of what we believe is required to achieve *The Vision*. There appears to be a serious disconnection between *The Vision* outlined in the document and the action plans proposed to achieve that vision.

For example it would have been worthwhile for the government to have:

- Stated its expectations as to the number of students participating in higher education over the next 10-20 years;

- Indicated a goal in terms of public investment, with respect to GDP or some other equivalent measure; and

- Outlined how the Higher Education Sector will respond to National Research Priorities.

These are key issues, which do not appear to have been considered.

ToR 2: The effect of these proposals upon sustainability, quality, equity and diversity in teaching and research at universities, with particular reference to:

- ***The financial impact on students, including merit selection, income support and international comparisons***

We support HECS because both students and the nation benefit from investment in higher education. Consequently both students and the taxpayer should contribute to the running of tertiary institutions. However, we are concerned that under the proposed arrangements the financial burden on students will become inequitable.

According to the 2003 Productivity Commission's Research Report on University Resourcing, Australian universities, as a result of trends over the last few years, already

receive a greater share of their revenue from students than do their overseas counterparts. A significant increase in this trend would be inequitable and undesirable, leading to a decline in participation of students from poorer backgrounds and an inevitable reduction in diversity.

It appears that most of the universities will set course fees at the top of the prescribed range. Consequently there will be a financial disincentive for students to take the more expensive courses such as mathematics, science and engineering, which are vital for the nation's future. Australia's future in science and technology will therefore be compromised, as the Government will have effectively reduced the opportunities for bright students from poorer backgrounds to participate and contribute.

The repayment of HECS debt is also a significant issue. For graduates starting on their first job and trying to set up a home and start a family, $30,000 in 2005/6 is too low to start repaying the HECS debt. The level should be raised and indexed to a fixed ratio of the Average Weekly Wage.

We therefore recommend that:

R1 The minimum repayment threshold for HECS be raised to $40,000 and tied to a percentage of the Average Weekly Wage, and

R2 The maximum student contribution be set at 10 per cent higher than the projected 2005 HECS levels.

We support the new **Commonwealth Learning Scholarship Programme**. The four scholarships outlined in the government's proposals are worthwhile and should make very positive impacts on the Tertiary Education Sector. However, we believe that the proposed level of assistance for Commonwealth Education Costs Scholarships (CECS) is too low. It should be doubled and indexed to provide sufficient incentives to those coming from low SES backgrounds. Children from these environments not only have to battle for funds to enable them to study, they may also have to overcome considerable cultural and peer group pressure to get into the tertiary education system. In these situations $2000 per year is just not enough.

We therefore recommend that:

R3 The proposed level of assistance for CECS be doubled and indexed to provide sufficient incentives to those coming from low SES backgrounds.

The International Scholarships proposal and the Overseas Study HELP are both highly commended as valuable initiatives. We should also try to ensure that we are able to attract the best postgraduate students form overseas. There is keen global competition to attract top quality postgraduates at many universities in Europe and the US. Fees are often waived to attract the best brains. We need to make sure that we are competitive in this sector.

The increased cost of student visas is going to hinder our efforts to attract good people from overseas. We therefore recommend that:

R4 The costs of visas and the incentives we provide to attract good overseas students be reviewed.

- ***The financial impact on universities, including the impact of the Commonwealth Grants Scheme, the differential impact of fee deregulation, the expansion of full fee places and comparable international levels of government investment***

Overall, the AGC supports a funding model that links Commonwealth Course Contributions to the cost of courses. We have been concerned for many years that the present funding model is disadvantageous to the science related disciplines which form the core to developing a skills base to maintain our wealth and sustainability.

However, we are concerned that the annual negotiations (2.1 in the BAF document), over the number of places and discipline mix that the Commonwealth will support, could be overly complex and may result in a lack of flexibility in the system. We do not want to finish up with a system in which the Commonwealth dictates to each tertiary institution (TI) the precise number and type of courses it will support. We believe there needs to be a balance between the Commonwealth's requirements for the course contents that are in line with national priorities and the opportunity for TIs to develop new courses which may not yet be recognised as being important.

We are supportive of the identification of National Priority Courses but strongly recommend that these be reviewed openly on a rolling annual basis, and not "periodically" as stated in Section 2.7 (of BAF). We now have National Research Priorities, as announced earlier this year; and the Prime Minister's outline of his government's priorities, outlined last November. These outputs should form the basis of identifying course priorities.

We therefore recommend that:

R5 The review of which subjects should be identified as National Priority Courses should be carried out openly and annually.

We understand that the numbers given in Table A (In the BAF document) for the Commonwealth Course Contributions are based on the Relative Funding Model for courses that was adopted in 1989. We believe it is time for a review of these numbers, not only in the context of current course costs, but also to take into account what the courses are likely to cost to ensure that they are internationally competitive in terms of facilities and teaching capabilities.

We therefore recommend that:

R6 DEST undertake a review of the costs involved in running courses with a view to ensuring that the Commonwealth contribution for all courses is appropriate.

The proposals to enhance collaboration and promote structural reform are very important. It is vital that universities are encouraged to collaborate in the use of resources. We believe that this is one of the more significant parts of the package, and have argued on several occasions for incentives to encourage cooperation between universities in designing curricula, and undertaking teaching and research, rather than the somewhat destructive competition that has developed as a result of the current funding model.

It is vital that TIs are given appropriate incentives to collaborate. We are therefore surprised that only $20 million extra will be provided over a three year period to be distributed to the ~70 TIs in Australia. This amounts to less than $100 000 per year per institution. We do not believe this is sufficient given that some reorganization is going to be needed in several disciplinary areas in each institute.

We understand the government's requirement for appropriate governance protocols. However, the way the extra $403 million (Section 2.2 of the BAF) is linked to compliance with all the prescribed details in Section 8 of BAF, (some of which may involve changes to state and federal legislation), is unreasonable and counter productive to getting the package working and improvements underway in a timely manner. Furthermore, the link between workplace agreements and academic achievements has not been made so we see this as a secondary issue.

We therefore recommend that:

R7 The whole issue of industrial relations and membership of student unions be excised from the package and dealt with subsequently and separately.

- ***The provision of fully funded university places, including provision for labour market needs, skill shortages and regional equity, and the impact of the 'learning entitlement'***

We are very supportive of the regional loading proposal (2.4 in BAF), however we recommend that:

R8 Newcastle and Wollongong universities should also be eligible for the 2.5% loading.

Both universities make outstanding contributions to their regions, but have to fight very hard with the competition from the main universities in Sydney. This competition will only become more intense under the new proposals.

We also recommend that:

R9 To assist regional populations, particularly with respect to remote learning courses, the government should embark on an urgent program to make fast, reliable broadband telecommunication links available to all Australians at affordable prices.

ToR 3: The implications of such proposals on the sustainability of research and research training in public research agencies

In Section 6.2 of BAF it is argued that there will be a review of relationships between universities and three publicly funded research agencies. Given that this should be a whole of government approach, we recommend that:

R10 Geoscience Australia, Antarctic Division and the Bureau of Meteorology should be added to the list of Publicly Funded Research Agencies. This review should be a whole of government activity.

However, the main driver contributing to the sustainability of research and research training in public research agencies is the level of funding available. If funding levels to organisations such as CSIRO and other agencies are not maintained the effectiveness of these institutions to meet the national needs will decline.

ToR 4 The effect of this package on the relationship between the Commonwealth, the States and universities, including issues of institutional autonomy, governance, academic freedom and industrial relations.

The imposition of rigorous conditions of compliance on the delivery of funding under the CGGS is a deterrent to the creative enterprise of university research. We suggest that such constraints act as a deterrent to the successful implementation of the Government's positive policies on innovation. Originality and productivity in university research are encouraged by allocating greater autonomy to the institution, rather than by introducing binding numerical restrictions that require an increase in administrative staff for compliance. We have observed an increase in a middle tier of TI administration, where accountants and business managers are replacing teaching and research staff. Not only has this trend reduced the financial resources available to teaching and research staff, it has also produced an environment in which academic staff are spending more and more time on the non-productive paperwork inevitably generated by an expanding administration. We believe that Government should be striving to reduce the administrative load and non-productive activities of universities, rather than introducing increasingly burdensome compliance requirements that will encourage their growth.

We have noted previously that the compliance obligations are unreasonable and counter productive, and that a link between workplace agreements and academic achievements has not been made. We therefore hold the view that they act as a disincentive to the achievement of Australia's innovation expectations, and should be excised from the package.

ToR 5 Alternative policy and funding options for the higher education and public research sectors

We urge the removal of the debilitating dependence of the tertiary sector on the numerical level of EFTSUs. We find that body counting and body retention have contributed substantially to a regime of destructive competition between institutions. We noted earlier that it is vital that universities are encouraged to collaborate and remarked that the Government's financial incentives for collaboration, though modest in level, represented one of the more significant parts of the package.
We believe that the funding levels should be based on national priorities and the cost of courses.

Mineral Exploration Action Agenda

Finally we would like to draw your attention to three of the recommendations proposed by the Strategic Leaders Group for the Mineral Exploration Action Agenda. These recommendations were drafted to meet the needs of the mineral resource industry, so that Australia can remain competitive in the global context and generate the wealth required for our society to be prosperous and sustainable. However, they are also indicative of some of the failures of the current system.

The final report is available at the following website:
http://www.industry.gov.au/library/content_library/minerals_aa_finalreport_July2003.pdf

The key recommendations relevant to this inquiry are contained in the section on ***Access to Human and Intellectual Capital*** where it is recognised that "innovation is one of the driving fundamentals of resource exploration. It promotes the discovery of new exploration technologies, ideas and approaches that underpin the discovery of new mineral deposits.
Innovation is driven by intellectual endeavour. Consequently, the human dimension of the exploration industry is arguably its most valuable form of capital. Indeed, the exploration industry's future will be shaped by the ability of people to make a difference at all stages along the mineral deposit discovery path, from training explorers to providing research and development solutions to key exploration problems, and to field exploration."

The AGC strongly supports this statement and the three subsequent recommendations:

"Recommendation 10 - That the Commonwealth Government establish a '50 early career explorer' scheme for new graduates and holders of doctorates relevant to the mineral exploration industry, to be rotated between government research agencies, university research centres, industry and small to medium enterprises. Funding of $1.5 million per annum from the Commonwealth matched by funds from the recipient organisation, with review after five years.

Recommendation 11 - That the Commonwealth move to a funding model for higher education that gives direct recognition to the national significance and costs of geoscience to increase the long-term viability of geoscientific education and training institutions including:

- Raising Earth Science education to Cluster 10 to match funding for agriculture and environmental sciences and list as a National Priority Area; and
- Extending funding under the Higher Education Innovation Program for a further five years to support and expand existing educational strategic alliances such as the Minerals Council of Australia's National Geoscience Teaching Network and the National Masters Program and link these with the proposed Collaboration and Structural Reform (CASR) Fund, due to become operative from 2005.

Recommendation 12 - That the Commonwealth establish a Deep Ore Discovery Program to support and increase public sector investment in research and development to equip mineral explorers in Australia with the tools for exploring for a range of known and new deposit styles through thick cover and at depth. This initiative will include developing more efficient and effective geophysical and geochemical tools, a step-change in the cost of deep-drilling, and innovative methods for the processing, interpretation and visualisation of relevant data. To achieve the development of this capability the Deep Ore Discovery Program is costed at $20 million per annum for seven years."

We hope you find the above comments helpful. Please don't hesitate to contact us if you require further input.

Yours sincerely

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