

# Submission to the Review of Australian Higher Education

Glenn Michael Anderson

Sydney Campus of Curtin University of Technology

glenn.anderson@sydney.curtin.edu.au.

“How adequate are the mechanisms for aligning supply and demand for graduates? How do pricing and labour market signals impact on student choices?”  
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In this submission I present several findings of research into the impact of the tax system on skill formation based on recent doctoral research. The papers referenced below accompany this submission and are available on request from the author. The main findings are as follows:

1. There appears to be substantial evidence that, compared with other OECD countries, the effective tax rate on investment in tertiary education is high for the marginal student. Using a new measure for the effective tax rate on education that is grounded in human capital theory, I show that the effective tax rate faced by Australian tertiary students is among the highest in the OECD, particularly for students who do not plan to do a post-graduate degree (Anderson 2008a,b).
2. The wage-elasticity of labour supply is an important factor influencing the effective tax rate. A rise in the marginal rate of tax facing graduates will not only reduce the after-tax return for graduates, but its effect will be compounded by a reduction in hours worked. A high wage-elasticity usually reflects a high opportunity cost to working, the most common example being working mothers. Therefore women are likely to face a higher financial disincentive than men when it comes to investing in tertiary education (Anderson 2008a).

3. I find the effective tax burden facing Australian students who plan to do a 4 year undergraduate degree, but no post-graduate studies, is among the highest in the OECD. A student with a zero wage-elasticity will face an effective tax rate of 24 per cent, the highest of the OECD. This rises to 37 per cent when the wage-elasticity is 0.25 and 47 per cent when the wage-elasticity is 0.50. Australia's effective tax rate is high compared to other OECD countries over a range of wage-elasticities, remaining well within the top five countries in terms of effective tax burden (Anderson 2008b).
4. These results do not incorporate the impact of a value-added tax. While in a number of countries, including Australia, educational services are not directly taxed, a value-added tax, such as Australia's GST, will have an adverse impact on skill formation. This is because the GST raises the effective tax rate on the real wage of graduates. The effect is compounded by a positive wage-elasticity<sup>1</sup>.

In other research, an applied aggregative general equilibrium model with endogenous skill formation is used to predict the initial impact of tax reform proposals involving full indexation of the income tax thresholds, the introduction of Earnings Tax Income Credit and the withdrawal of tax deductions on key variables. These variables include enrolments, average and marginal effective tax rates, as well as the lifetime earnings of those with and without education (Anderson, 2008c). The key findings are

1. There is substantial evidence that bracket creep reduces the financial incentives for investing in tertiary education.
2. The choice between alternative tax proposals in terms of their positive impact on student enrolments will depend on the starting wage for graduates and the risk premium that students place on investing in education.
3. The *initial* impact of the introduction of full indexation, coupled with a withdrawal of income tax deductions, is predicted to raise the rate at which school-leavers are entering tertiary education from its current rate of 64 per cent to 81 per cent.

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<sup>1</sup> In further research I intend to measure the impact of the GST and incorporate government-subsidised loans for education, such as the HECS.

4. While the predicted immediate impact of full indexation can be expected to be tempered over the medium to long-run by subsequent adjustments in relative wages and the capital stock, the change is substantial enough to suggest that full indexation may have an important role to play in expanding the capacity of the economy to innovate and grow.

This research highlights the fact that two reform agendas currently being pursued by the Federal government, in the areas of education and taxation, are not mutually exclusive. They may well be complementary. However, there is a need for a comprehensive examination of the implications of tax reform proposals for higher education. Without such an examination the benefits of reforms such as full indexation may well be underestimated, while the benefits of other reforms, such as raising the rate of the GST may well be over-estimated.

### *References*

- Anderson, G.M. (2008a) “Effective Tax Rates on Skill Formation: A New Approach” Working Paper One.
- Anderson, G.M. (2008b) “Effective Tax Rates on Skill Formation A Comparison of 25 OECD Countries” Working Paper Two.
- Anderson, G.M. (2008c) “Human Capital and Tax Reform: The Impact of “Bracket Creep”” Working Paper Three.