

The Economic Benefits of Australian Theological Education
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EXECUTIVE SUMMARY

Religious and theological education is an important, though often neglected part of Australia's higher education system. There are 24 universities and colleges (or 58 if we count colleges within theological consortia) teaching the equivalent of 6200 fulltime students from undergraduate to PhD levels. Research output is significant.

Theological education contributes to the government budget through additional taxation revenue from graduate earnings, for a much smaller government contribution than any other area of study. This net contribution is estimated at \$37 million, representing a 7.2% rate of return on government contributions. The economic benefits to Australia of theological education are much larger through additional income for graduates, giving, volunteering, better health, and lower crime. These benefits accrue through the well-documented direct spillovers from graduates and through theology graduates generating further spillover benefits in the churches they lead. The total of these net benefits is estimated to be \$300 million, representing a rate of return to society on its investment of 12.7%.

Besides estimating the value of religious and theological education it is important to understand that this value can change if policy changes:

- Abolishing the 25% loan surcharge currently levied on students at private colleges would increase net benefits to society by \$11 million to \$311 million, and the corresponding rate of return to society by 0.8% to 13.5%. About half these additional benefits would accrue to theology graduates from the loan repayment savings, and about half are additional spillover benefits to others in society. Abolishing the loan surcharge would be approximately revenue neutral for the government as the lost surcharge revenue would be compensated by Commonwealth Supported Places (CSP) savings as students move out of public universities to private providers, and tax revenue rises with more theology graduates.
- Removing eligibility for FEE-HELP loans from theology students is projected to reduce student numbers by 20%, which would reduce net benefits of theology graduates by 9.3 million, damage the budget balance by 10.3 million mostly due to lost taxation revenue, and reduce spillover benefits, with a net cost to society of \$60 million. Such a policy change would be a costly ideological indulgence for the government and wider society.
- Extending CSP eligibility to all theology undergraduates is projected to reallocate students from public universities to private providers with a net increase in theology enrolments of about 10%. Students would gain \$6.5 million, government expenditure would rise by \$19 million and society would gain slightly overall.
- Extending access to Research Training Program (RTP) places for all theology postgraduate research students would level the playing field between public universities and private providers accredited to offer PhD students. Students are projected to move to private providers with no net increase in PhD enrolments.

These results are based on an economic model of theological education including graduate earnings, taxation, fees repaid through student loans, loan default, direct spillover benefits from graduates, and indirect spillover benefits generated by churches that theology graduates lead. The model is calibrated with QILT, Department of Education and ATO data, with conservative parameter estimates.

The scope of the project is limited and data imperfect, and further research is needed on issues such as demand responses to price changes, the degree of substitutability between theological and other degrees, the effect of student loans on demand, social capital and other spillover benefits of religion (including religious schools and social service NFPs in Australia), and the functioning of religious labour and product markets.

CHAPTER 1 – ABOUT THE PROJECT

Economics is the language of public policy in Australia, and theological educators need fluency in this language in their dealings with governments (over accreditation, student funding, research funding, grant applications etc). At the moment we are not well placed to do this, and this project gathers evidence for the value of theological education and research and translates it into economic language and dollar values.

This of course does not mean that theological education has been or should be driven by economic imperatives. Staff and students are motivated by pursuit of truth, the pleasure of teaching and learning, ministry to the faithful, blessing the wider community, among other things. Theological education is not the only activity pursued for other reasons that generates large economic benefits.

The project has been conducted by the author of this report Professor Paul Oslington. A reference group has overseen the project, with members Dr David Perry (Chair), Dr Mark Harding, Professor Neil Ormerod, Professor Peter Sherlock, Professor Andrew Dutney, and Nick Jensen. Comments and advice from Dr Brendan Long, A/Prof Philip Lee, and Adrian McComb have also been helpful.

It has been funded by a grant from the Australian Research Theology Foundation, with matching funds of from the Council of Deans of Theology, the Australian and New Zealand Association of Theological Schools, University of Divinity, Christian Heritage College, Australian Catholic University, and BBI-TAITE.

I appreciate the detailed QILT data on religion and theology supplied by the Social Research Centre, data on student numbers supplied by the Commonwealth Department of Education, and data on religious leaders supplied by the Australian Taxation Office. All other data used in the project is publicly available.

The scope of the project is limited, with particular limitations being:

- Data. There has not been a great deal attention within the theology sector to collecting data on theological education, aside from the pioneering work of Charles Sherlock (2009). Publicly available data is limited on private institutions where most theological education occurs. Data sources and their limitations are discussed more fully in the next section.
- Focus on education, excluding research. Valuing theological research is difficult methodologically and data extremely limited, and outside the scope of the present project. Case studies may be more powerful in communicating the benefits of theological research.
- Focus on domestic students who we have better data on and make up the majority of Australian theological students.
- Focus on religion and theology degrees from Bachelor to PhD, excluding VET studies in theology.

Possible extensions are discussed in the concluding section.

CHAPTER 2 - MAP OF RELIGION AND THEOLOGY HIGHER EDUCATION IN AUSTRALIA

History

Theological education in Australia has mostly been conducted in colleges set up by Christian denominations to train their clergy. Many of Australia's older universities excluded theology, and consciously separated from the churches.

In recent years higher education in religion and theology has changed dramatically, including:

- Theological education increasingly being regulated by Governments, with institutions and degrees now accredited with TEQSA. Funding has not followed regulation, with some exceptions.
- The growth of research and research training within the sector. Many institutions now offer PhDs.
- Many students studying theology, especially at postgraduate level, with no intention of seeking ordination.
- A small but increasing number of international students coming to Australian institutions to study theology.
- Foundation of two Catholic Universities, ACU and Notre Dame Australia.
- Growth of Christian institutions which teach business, education, counselling and other subjects alongside theology. Examples are Avondale, Alphacrucis, Tabor, and Christian Heritage College.
- Some universities offering religious studies degrees, with no connection to churches or confessional commitments. This offering has declined over the last 15 years however with some universities dropping degrees and rolling religious studies subjects into other departments.
- Some newer universities adopting theological colleges into their Arts Faculties, and through this obtaining government funding for theological education.

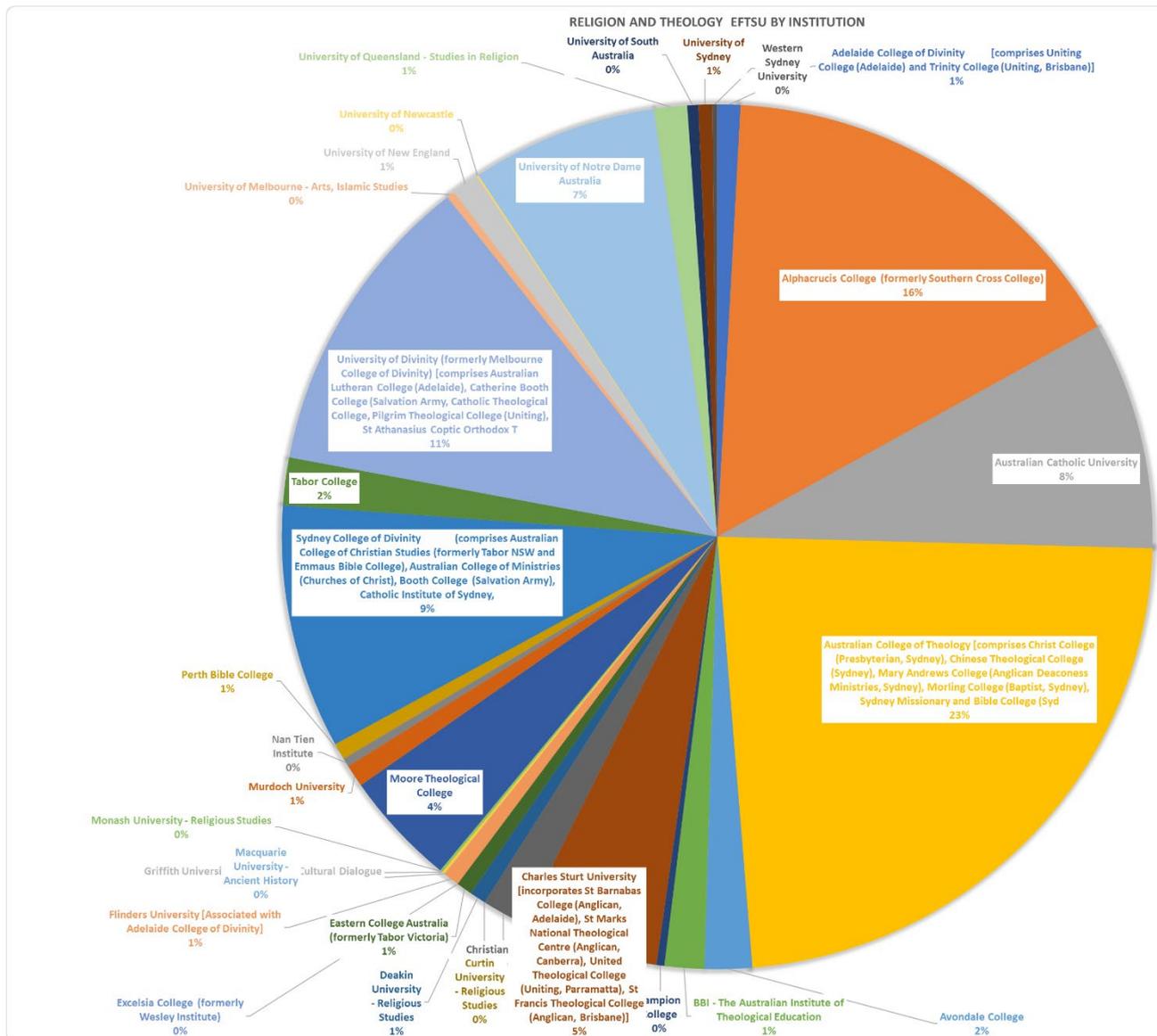
There is further discussion and references to fuller histories of the sector in Oslington, Jensen and Ryan (2019), and Oslington (2014). Sherlock (2009) based on a project initiated by the Council of Deans of Theology and partially funded by the government, is a landmark portrait of the sector, including history and much data on teaching and research. Harding (2018) discusses the current situation of theological education.

Teaching

The table and chart below (with more details in the spreadsheet appended to this report) set out student numbers for each institution teaching religion or theology in Australia. Numbers are EFTSU, divided into undergraduate, postgraduate coursework, and research degrees, for domestic and overseas students. It is a highly fragmented sector. Total EFTSU by institution are given in the chart below:

Research

Research is outside the scope of the present economic valuation project, but data on ARC funded research and benchmarking of research output in religion and theology may be found in Oslington, Jensen and Ryan (2019). A project on higher degree research on the sector outlined in Cox (2017) will be an important addition to our knowledge of the sector when completed.



Staff numbers

Academic staff numbers, excluding sessionals, by institution are given in the table below, though in many cases they are very imprecise estimates from institutional websites. If the numbers are at all reliable there would seem to be large variations in staff/student ratios across the sector, reflecting the generosity of funding of different institutions, and accreditation demands (which affects the research/teaching/admin loads of staff, and requirements for staff rather than sessionals)

Financial Health

In the table below I have collated financial data for non-university institutions teaching religion and theology. These are for 2018 and there are often large fluctuations in financial results from year to year. The sector is financially marginal, with many institutions posting losses and others posting small profits. A few institutions have substantial assets, mostly real estate, to fall back on but it is likely that financial issues will drive mergers and the exit of many institutions in the years to come. Some colleges receive financial support from the churches they are affiliated with, but with mainstream churches static or shrinking, and cash flow tight this support is likely to decline in the future. Future directions in government funding are unclear.

CHAPTER 3 - PREVIOUS RESEARCH

There are several strands of existing research which we can draw on. These include:

- **Research on the benefits to Australia of higher education.** Daly et al (2015) is the published version of earlier government commissioned research on rates of return to higher education. Chapman and Lounkaew (2015) estimate benefits for Australia following the methods of US work by McMahon (2006, 2017). Andrew Norton's (2012) research at the Grattan Institute is more sceptical of there being substantial benefits beyond the private benefits of higher earnings. The theoretical and empirical background to these studies is the literature on rates of return to education (for instance Heckman et al 2006, and for Australia, Leigh 2008).

- **Studies of the contribution of universities to the economy sponsored by universities and government.** There has been a spate of these studies in recent years as public funding of universities has declined and university peak bodies have sought to make their case for funding.

Universities Australia commissioned Cadence Economics (now merged with EY) (2016) who used a computable general equilibrium model to estimate the benefits from university graduates to the wider economy and workers without a degree. They found very large simulated impacts of graduates on employment and wages, to the extent that Australian GDP rises by approximately \$125,000 per graduate and government revenue by approximately \$5 billion for a single year. However results from such CGE models must be treated with caution for the reasons outlined in Dennis (2012) and Oslington (2016).

Perhaps to get a clearer picture of benefits the Commonwealth Department of Education commissioned several studies. One was Deloitte Access Economics (2016) which estimated reasonable costs of delivery for different institutions and subjects, using cost data supplied by the institutions. Deloitte Access Economics (2017a) was a comprehensive study of the benefits of higher education using earnings data from HILDA, regressions to separate the contribution of unmeasured student ability from the contribution of the degree to earnings, and then the results fed into a computable general equilibrium model to estimate economy wide impacts. Public benefits were taken to be the economy wide impacts less the private benefits. They found substantial benefits to Australia from higher education, split roughly equally between private and public. Benefits would be even greater had they included in the calculations the various non-market benefits they listed.

A more modest study conducted by Deloitte Access Economics in conjunction with the Faculty of Arts at Macquarie University is summarised in O'Mahony et al (2019). They estimated wage premia for humanities graduates compared to school leavers, and compared employment rates, using HILDA data. Unsurprisingly humanities graduates do better in the labour market than school leavers, but not as well as other graduates. They expect humanities graduates to do better in the future as they tend to be employed in growing industries and possess skills such as communication, problem solving and critical thinking that will be in demand. Their case for the value of the humanities largely rests on public benefits – that the humanities promote trust, volunteerism, political engagement and tolerance.

A report by London Economics (2018) commissioned by the G8 universities attempted to estimate the contribution of university research to the Australian economy, but had serious methodological flaws (Oslington 2018).

Private higher education peak bodies such as IHEA and ACHEA have so far not sponsored or produced similar studies.

In the US the Council for Christian Colleges and Universities (CCCCU) commissioned Econsult Solutions to estimate the economic impact of their 142 colleges on the US economy (CCCCU 2018). It

was somewhat of an inspiration for the present project, though methods are very different. The CCCU study measures the gross rather than net economic impact of the colleges and comes up with some very large numbers – such as a US\$60 billion annual economic impact, US\$9.7 billion annual tax revenue and 340,000 jobs created. This study is subject to many of the problems with economic impact studies discussed by Siegfried et al (2007).

- **Research on the value of religious schooling.** This has analogies to the current project on higher education, but Australian studies remain in the planning stage (Dalziel 2016, Hastie 2016). An overseas model is Beth Green's work with Cardus on schooling in Canada. (for instance Cardus 2018a, 2018b, 2018c)
- **Research on the contributions of not-for-profit organisations to the Australian economy.** This is relevant because theological colleges are NFPs and generate spillover benefits (Lyons 2001, Productivity Commission 2010).
- **Research on the economic value of religion.** There is growing literature on the economics of religious behaviour and religious markets (Iannaccone, 1998, Iyer 2008), but little done in Australia.

For some years a group has been working on a project to estimate the fiscal contribution of religion in Australia (see Deloitte Access Economics 2013, Hughes 2015 2018b, Oslington 2015, Powell et al 2015). This is now under the auspices of SEIROS, an organisation comprising representatives from Catholic, Anglican, Seventh-day Adventist, Latter-day Saint, Salvation Army, Evangelical, Bahai, Sikh, Buddhist, Muslim and Jewish faith traditions. SEIROS sponsored a survey conducted by Philip Hughes in 2016 and problematic report based on the survey results by Deloitte Access Economics 2018. SEIROS have recently received funding from the Commonwealth Government and will be conducting further work on the contributions of religion to Australia.

Their work draws on US studies of the economic contribution of congregations to the local economy (Cnaan 2009, Cnaan et al 2013, Cnaan 2017, Cnaan and An 2018). The most recent of these studies considering 90 congregations across Chicago, Philadelphia and Fort Worth estimated the average contribution of congregations to their local economies at approximately US\$2.5 million. It must be remembered that this is a gross impact estimate, subject to the same methodological concerns as the CCCU study discussed above of the impact of Christian colleges to the economy.

The sociologist Rodney Stark has made a comprehensive but methodologically simplistic attempt to estimate the economic benefits of religion to the US. Stark (2012) identifies benefits of US\$2.6 trillion a year comprising:

- reduced crime of US\$2.1 trillion, based on 91% lower probability of religious people being picked up by police, applied to costs of crime to victims.
- savings on public schooling costs of US\$630 million
- savings on mental health US\$216 billion, based on higher scores of religious people in National Institute of Mental Health psychic inadequacy scale.
- savings physical health of US\$115 billion, based on 7% higher life expectancy for religious people, extrapolated to medical costs.
- charitable contributions US\$31 billion, based on additional 23% contributions with religion.
- volunteering US\$47.3 billion, based on additional 28% hours with religion.
- savings in unemployment benefits US\$27 billion, based 27% lower unemployment rate for religious people.
- welfare savings US\$123 billion, based on 19% saving in costs with religion.

CHAPTER 4 - APPROACH OF THIS STUDY

This study will estimate the net benefits of Australian religion and theology graduates, using standard benefit-cost analysis techniques from economics. These techniques are described in Layard and Glaister (1994), Abelson (2013) and Boardman et al (2018). Current Australian practice is discussed by Ergas (2009) and Dobes et al (2016).

Benefit-cost analysis is a technique of contemporary mainstream economics, and as such makes a number of philosophically and theologically contentious assumptions, including

- Consequentialism. Actions are to be evaluated according to their consequences.
- Individualism. The individual is the appropriate unit of analysis, and groups such as universities or society are no more or less than the sum of the individuals who make them up.
- Preference satisfaction view of welfare. The welfare of individuals is the extent to which their preferences are satisfied. No restrictions are placed on preferences other than minimal consistency requirements.
- Preferences of the economist or anyone other than relevant individual actor must be kept out of the analysis. Other moral considerations such as rules, virtues, and the good are irrelevant.
- Rational choice. When we combine this account of individual preferences with a view of the individual as a maximiser, and add income and time constraints, then the distinctive benefit-cost analysis measure of value as willingness to pay emerges.

This is not the place for an extended discussion of the relationship between economics and moral philosophy or theology (see for instance Oslington 2014), nor of the way these assumptions play out in benefit-cost analysis (see for instance Hansson 2007).

There are however some particular issues for this project that warrant discussion.

Counterfactual. A clear and consistently applied counterfactual is essential for coherent measurement of net benefits. Here the counterfactual will be the non-existence of religious and theological higher education. Think of the estimate of the value as compared to the situation where a selective virus has wiped out all Australian theological educators and students overnight. After the main valuation using this counterfactual, I will then investigate various policy change scenarios.

Basis of valuation. Net benefits to students, government (representing taxpayers) and society as a whole will be measured by willingness to pay in dollars. This approach is to be contrasted with measuring gross economic activity generated (as in the CCCU or Cnaan studies discussed above) or government fiscal impact as in the published SEIROS studies to date). Values are Net Present Values at time of graduation using an appropriate discount rate.

Religion and Theology as a Field of Education. For the purposes of this study it will be ASCED code 91703 “Religious Studies” which is applied at the degree level. This excludes the large religious education programs at Australian Catholic University, teaching of core curriculum subjects at Notre

Dame and Australian Catholic University, and Christian worldview within other degree programs at Alphacrucis.

Differences between theology and other areas of study. Some particular features of religion and theology compared to other areas of study are:

- The majority of theological education occurs in private colleges, rather than public universities.
- Government support for theological education is low.
- Low substitutability between theology and other areas of study, particularly at undergraduate level.
- Flatter earnings profiles than for other areas of study.
- Theological education and research do not have as easily measurable economic outcomes (cf patents for scientific research) as other areas of study. There are examples of Australian innovation and growth in religious markets (e.g. the growth of Hillsong and C3 movements) which have links to theological education. Another good example is the world leading empirical research on religious life by NCLS.

Theological Education and the Churches. Australian theological education has for most of its history been focused on preparing men and women for ministry in churches, and most denominations have set up and funded their own colleges. As noted above these have been outside the public university system.

The relationship between theological education and the churches is closer than for other professional fields such as law or medicine where the professions merely accredit, and employers seldom sponsor undergraduate training let alone set up colleges for training their future workforce.

For this reason the economic benefits generated by churches will be linked to the theological graduates needed to produce these benefits, and attributed to theological education that produced the graduates. These indirect spillover benefits include religious giving and volunteering, religious effects on health, and crime. They are additional to and distinct from the direct spillover benefits generated by all graduates that have been included in some previous studies of the benefits of higher education. Both types of spillovers will be discussed in more detail in a following section.

Treatment of Health, Longevity, and Happiness Benefits. It is well established empirically (for instance Haveman and Wolfe 2001, McMahon 2006 2009) that graduates have better health outcomes and live longer than the general population. This is both a private nonmonetary benefit to the graduate, and also a direct spillover benefit to society through lower public health expenditures. These could be large, with Haveman and Wolfe suggesting the private nonmonetary benefits of a degree are at least as great as the monetary benefits. McMahon emphasizes the nonmonetary benefits because he believes potential students, especially those from disadvantaged backgrounds are less well informed about them than the monetary benefits and this leads to substantial market failure.

Graduates also tend to be happier than the general population, controlling for income and other differences (for instance Layard 2005).

It may well be that these health and happiness effects are stronger for theology graduates than other graduates. However we do not have reliable estimates of the dollar equivalents (known in the literature as compensating differentials) of these health and happiness effects for graduates, and this

plus a desire to be conservative in estimating benefits from theological education means I will exclude them from the private benefit calculations. Benefits to society from lower health costs for all graduates will be captured in the direct spillover benefits parameter to be discussed in more detail in a following section.

As discussed above I will be attributing some of the benefits generated by churches to the education which equips graduates to lead churches. We have good data on the health benefits of religion for society and these will be included among the indirect spillover effects to be discussed in a following section. Research on religion and happiness (Easterlin 2005, Spencer et al 2016, Graham et al 2014) suggests very strong positive effects, controlling for other differences between religious attenders and the general population. However it is difficult to translate these into dollars, and so happiness effects of religion will not be included among the indirect spillover benefits. As well as being conservative in estimating benefits I am also wary of double counting benefits from happiness and the indirect spillover benefits from religion I am including; giving, volunteering, better health and lower crime.

Treatment of Social Capital Benefits

Robert Putnam defines social capital as “those features of social organisation, such as trust, norms and networks that can improve the efficiency of society by facilitating co-ordinated actions.” (1993 p167 quoted in Powell et al 2015 p7). A distinction is often made between bonding social capital which is about strength of relationships within the group, and bridging social capital which is about the extent and strength of relationships between the group and other groups.

Research on social capital (Dasgupta 2005, Ashcroft et al 2016, Putnam 2000, Putnam and Campbell 2010) and Australian studies (ABS 2004, Leigh 2010, Hughes 2008, Hughes et al 2007, Leonard and Bellamy 2010) have increased our understanding of how social capital is generated and its effects. For the purposes of this project the strong association between religion and social capital is important. Putnam (2000, 2003) famously estimated that about half of social capital in the US is generated in religious contexts. The strong association has led some researchers to develop a concept of spiritual capital (Fogel 1999, Malloch 2014, Hughes 2008).

Another relevant finding is that graduates and communities with many graduates have higher levels of social capital than the general population. The study discussed above by O’Mahony et al (2019) presents Australian evidence that humanities graduates have greater trust and tend to volunteer more than other graduates.

The approach taken to social capital in this study is to include it among the direct spillover benefits for all graduates. The strong association between religion and social capital suggests it should also be included among the indirect spillover benefits of theological education, but the difficulty of translating the well-documented positive effects of religion on social capital into dollar amounts, plus the desire to be conservative and avoid double counting means it will not be valued alongside the other indirect spillover benefits: giving, volunteering, better health and lower crime.

Treatment of Human Capital vs Screening Effects of Education.

There are two main competing theories of the benefits of education. The first, human capital theory, views education as an investment in skills which individuals make then reap the income and other rewards over their working life. Individuals will invest in education if the rate of return, which depends on costs, earnings forgone, and future earnings expected from the degree is sufficiently high. Note that individuals will invest in education that provides general skills that rather than firm specific skills because the latter have no value outside the firm the worker is employed in and thus no benefit to

the individual in the labour market. Training in firm specific skills will typically be financed by the firm.

The alternative screening theory sees the value of education in providing employers with information about students otherwise unobservable abilities, rather than by providing skills. Students invest in education to demonstrate ability rather than to learn anything that will be useful to employers. In the literature on estimating educational rates of return this screening theory is sometimes accommodated by adjusting rates of return for ability bias. It is called ability bias because graduates are assumed to have higher innate ability than the general population, and so some of their additional earnings cannot be attributed to the degree.

I will follow the standard approach in the literature of subtracting an allowance for screening effects or ability bias when estimating the private benefits of theological higher education.

Treatment of Earnings Spillover Benefits

Education improves not just the productivity and earnings of graduates, but also the productivity and earnings of those who work with them. Some of the Australian studies (such as Cadence Economics 2016, Deloitte 2017a) used computable general equilibrium models to estimate these earnings spillovers for graduates. A religious sector has not to my knowledge been included in a computable general equilibrium model, nor do we have sufficiently good data on the sector for inclusion to be feasible even if the conceptual difficulties could be resolved. In any case computable general equilibrium modelling of spillovers from religion and theology graduates is well outside the scope of this project. I am reluctant to use the estimates from the existing studies of other graduates because of doubts about their reliability and applicability to religion and theology. This means earnings spillovers cannot be part of the analysis.

CHAPTER 5 - DATA SOURCES

This chapter briefly summarises the data relevant to the economic valuation of theological education, not all of which was eventually used in the project:

Australian Bureau of Statistics (ABS). Among the vast amounts of valuable data, the Australian Census earnings by occupation, and the labour force survey data have been used in the project.

Australian Taxation Office (ATO). The ATO provided data for the project on taxable income and fringe benefits of religious practitioners.

Longitudinal Survey of Australian Youth (LSAY). This was used in recent Productivity Commission report on the demand driven system, but has not been used in the current project.

Household Income and Labour Dynamics (HILDA) – Extremely rich data on employment and earnings in Australia which was used in several recent studies of the benefits of higher education, but not used in the current project.

Dept of Education Higher Education Statistics – Current data on enrolments by field of education and institution was utilised, along with additional data provided which separated out religion from other humanities fields.

Quality Indicators for Learning and Teaching (QILT) Graduate Outcomes Survey (GOS) conducted by the Social Research Centre. In addition to the publicly available data the Social Research Centre provided detailed data on graduate numbers, employment, labour force participation and earnings for the field of education religion.

Norton and Cherastidtham Mapping Higher Education - Grattan Institute report on Australian higher education, including calculations of lifetime earnings for different fields. There is insufficient detail to separate out religion and theology, but data on arts was a useful comparison for the current project.

Charles Sherlock *Uncovering Theology* – Valuable book arising from a project initiated by the Council of Deans of Theology with Australian Catholic University as lead institution, and supported by an Australian Learning and Teaching Council grant. Historical data on theology enrolments, staff numbers etc was useful for the current project.

NCLS Research– Rich data on churches, including their community involvement, giving, volunteering etc. It is important background but has not been used in this project.

Australian Charities and Not-for-Profit Commission (ACNC) – Financial reports of theological institutions.

Web sites of institutions teaching theology and religious studies

CHAPTER 6 - MEASURING BENEFITS AND COSTS

This chapter explains how the various components of the net benefits of theological education have been calculated.

Figure 1 – Summary of Benefits and Costs of higher education in religion & theology

| Total Benefits to Society | | | |
|---|---|--|---|
| Private Benefits to Graduates Additional earnings less taxes less cost of degree. | Benefits to Government Taxes less government funding of degrees | Wider Social Benefits | |
| | | Direct Spillovers from graduates <ul style="list-style-type: none"> ▪ Graduate giving ▪ Graduate volunteering ▪ Better health ▪ Lower crime ▪ Social capital | Indirect Spillovers from theology graduates working in churches <ul style="list-style-type: none"> ▪ Religious giving ▪ Religious volunteering ▪ Better health ▪ Lower crime |

Private Benefits to Graduates

Data on the earnings of religion and theology graduates from different types of institutions were obtained from QILT. Earnings for those with undergraduate degrees, postgraduate coursework, and postgraduate research degrees were considered separately. Data were obtained across these degree types for institutions grouped as per the table:

QILT earnings data are for 4 months after graduation and it is important to note that it is median earnings for graduates employed full time, so excluding those employed part-time and casual and the self-employed. I was also able to obtain QILT longitudinal data on graduate earnings 3 years after graduation as a reasonableness check on the starting salary data. I did not use the data on labour force participation and unemployment rates, implicitly assuming that all graduates are in the labour

| Group | Institutions |
|---|---|
| Comprehensive universities teaching religious studies | Curtin University Griffith University Macquarie University Monash University University of Melbourne University of Queensland University of Sydney University of New England University of Newcastle Western Sydney University |
| Comprehensive universities teaching theology | Australian Catholic University Charles Sturt University Flinders University Murdoch University University of Notre Dame Australia |
| University of Divinity | University of Divinity |
| Comprehensive colleges teaching theology ACHEA | Alphacrucis College Avondale College Christian Heritage College Eastern College Australia Tabor College |
| Theological Colleges | Adelaide College of Divinity Australian College of Christian Studies Australian College of Theology BBI-TAITE Moore Theological College Perth Bible College Sydney College of Divinity |

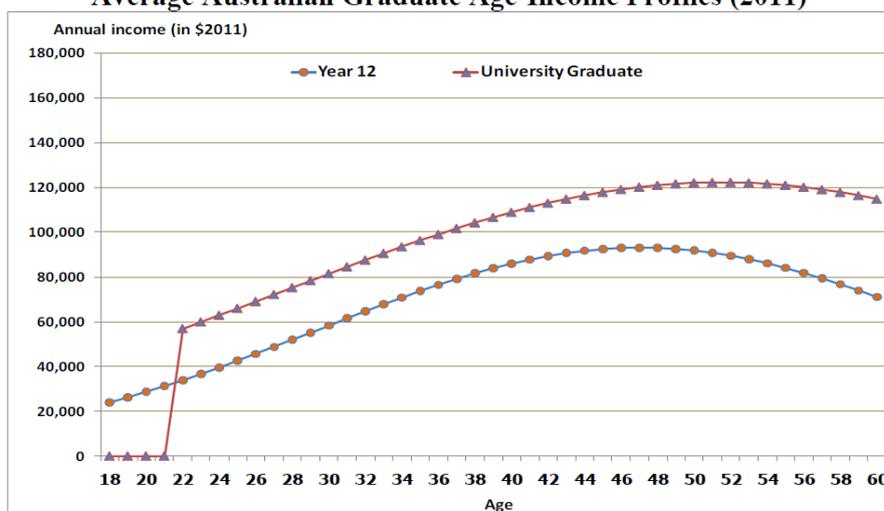
force and fully employed. These are broadly similar to participation and unemployment for other graduates, and the general population.

An important difference with theology graduates is that many are paid mostly in fringe benefits because of the FBT exemption for religious practitioners. It is unclear if theology graduates who are paid mostly in fringe benefits include these in earnings in the QILT survey. As a check I obtained ATO data on taxable income and fringe benefits for the occupation group religious leaders and compared to the QILT earnings data for theology graduates. It seems theology graduates are including fringe benefits in their QILT survey earnings.

Another difference is that many theology graduates are older and have prior qualifications and experience which contribute to their post-graduation earnings. A theology graduate who worked in finance or law This is issue with many other fields of study where postgraduate degrees are the norm. It is difficult to separate the contributions of prior qualifications and experience and the theology degree without data on the earnings of theology graduates before they undertook theological study, and so

As well as determining starting salaries, earnings profiles for theology graduates need to be estimated. To illustrate earnings profiles here is a figure from Chapman and Lounkaew (2015) comparing earnings profiles of school leavers and graduates.

Figure 1
Average Australian Graduate Age-Income Profiles (2011)



The approach I have taken to estimating earnings profiles is to index the graduate salaries to grow at 1% per year for the expected number of years till retirement which is estimated to be 40 years for undergraduate degree holders, 30 years for postgraduate coursework, and 25 years for postgraduate research. These parameters reflect earnings profiles for theology graduates being flatter than for other graduates, and the older age of most theology students, especially postgraduates. The earnings profiles generated with these parameters for theology graduates are similar over the relevant range of years, though flatter than the graduate profile illustrated.

The next issue in determining private benefits for graduates is to estimate what an individual would have earned if they had not undertaken their degree. I have used ABS data on average fulltime earnings for school leavers as the counterfactual for undergraduates, and average population earnings as the counterfactual for postgraduates.

An ability bias adjustment of 10% is applied to additional earnings.

Then we must subtract tax from the additional earnings attributable to the degree. I have used an average tax rate of 25%, though since many theology graduates are paid tax-free fringe benefits their average tax rate may be lower than other graduates or the population.

The final component of the private benefit for the graduate is the cost of the degree. The student forgoes income while studying, which I have taken to be the average fulltime earnings less estimated income while studying. This income is forgone for the duration of the degree which is taken to be 3 years for undergraduates, 2 years for postgraduate coursework, and 5 years for postgraduate research. I have allowed for income earned while studying of \$15,000 per year and textbook and other costs of \$2,000 per year.

As well as forgoing income the student pays fees for the degree. Fees are fixed for domestic undergraduates at public universities. Average fees for other degrees at different types of institutions have been estimated from institutions websites. It is assumed that graduates pay these fees through Australia's income contingent loans scheme, with equal instalments over the first ten years after graduation. Fees include the 25% government surcharge for undergraduate students at private providers.

An allowance of 10% is made for default on student loans, which is a benefit to the student and a cost to the government.

All these streams of benefits and costs in future periods are discounted at a rate of 5% per year.

Full details of the calculations are available in the spreadsheet associated with this report. Data limitations are the main constraint, with many parameters for theology graduates having to be estimated from sketchy information for theology graduates, or based on data for other types of students with appropriate adjustments. Some other caveats should be mentioned. Benefits and costs for those who do not complete their degree are excluded from the analysis.

Government Benefits

Government benefit from theological higher education is the additional tax revenue flowing from additional graduate earnings, less government contributions through CSPs for undergraduates at public universities and RTP contributions for postgraduate research students. I am assuming CSP changes from changes in numbers of religion and theology students in universities are not compensated for by changes in CSPs elsewhere in the universities.

Wider Social Benefits

(a) Direct Spillover Benefits

These are the giving, volunteering, public health, crime reduction, social capital and other benefits that accrue to society from having more graduates. These are estimated to be \$10,000 per graduate based on the work of McMahon (2006, 2009) and Chapman and Lounkaew (2015) who suggest a range of \$6000 to \$10000 per year of higher education. We have no data on theology graduates, and direct spillovers are assumed to be similar to other graduates.

(b) Indirect Spillover Benefits

As discussed in a previous chapter, theology degrees are an input to churches which generate public benefits. For the estimated proportion of theology graduates who enter church ministry there will be indirect spillover benefits.

I am implicitly assuming that the labour market for theology graduates and product market for religion are both supply constrained. In other words theology graduates generate church attendees. This is probably true for Pentecostals, more doubtful Uniting churches, and the situation for Catholics more complex.

Calculations based on Reid (2013) drawing from ABS census data on ministers of religion and numbers of attenders at Christian leads to an estimate of 838 attendees per minister. For comparison Hughes (2016) estimates of clergy numbers plus NCLS estimate of 1.8 million church attenders gives 108 attenders per minister. I have used 100 attendees per minister and a proportion 40% of theology graduates entering the ministry to estimate the relationship between theology graduations and church attendees.

We then need to determine the public spillover benefits of religion per attendee. This has several components:

Additional religious giving is estimated to be \$196 per attendee. This is based on Deloitte (2018) estimates of the value of additional religious giving at \$142 million, divided by 726,600 religious transitioners gives \$196. Deloitte's confined attention to religious transitioners, in other words those who become religious after previously not being so. For comparison Stark (2012) estimates the additional benefit of religious giving for US as \$ 31 billion, or \$269 per attendee

Additional religious volunteering is estimated to be \$467 per attendee. Deloitte (2018) estimated value of additional religious volunteering at \$339 million, divide by 726,600 religious transitioners gives \$467. For comparison Stark (2012) estimates benefit of religious volunteering for US as \$ 47 billion, or \$411 per attendee.

Public health cost savings are estimated to be \$1000 per attendee. This is a conservative estimate in the light of Stark (2012) estimates benefit of better physical and mental health for US as \$341 billion, or \$2965 per attendee.

Crime savings are estimated to be \$1000 per attendee. By comparison Stark (2012) estimated benefit of lower crime for US as \$ 2.1 trillion, or \$18,260 per attendee

CHAPTER 7 – RESULTS FOR VALUE OF RELIGION AND THEOLOGY HIGHER EDUCATION

Compared to baseline of non-existence, religion and theology higher education has a value to Australian society of approximately \$300 million, representing a rate of return to society on its investment of 12.7%.

This value comprises private benefits to graduates amounting to \$52 million (rate of return 6.3%), benefits to the government of \$37 million (a return of 7.2 % on government investment through CSP and RTP contributions), and wider social benefits of \$211 million. The estimates of government benefits are particularly conservative as giving, volunteering, better health and reduced crime that are counted as wider societal benefits will have a fiscal impact.

Further detail on the components of these net benefits may be found in the analysis tab of the associated spreadsheet.

Besides these economic benefits it is worth noting:

- There are 24 universities and colleges (or 58 if we count colleges within theological consortia) teaching the equivalent of 6200 fulltime students from undergraduate to PhD levels.
- For the \$4 million per year the government contributes to religion and theology education through CSPs and RTP contributions, the churches provide approximately \$12 million and students \$52 million. It is overwhelmingly the churches and theology students who are paying for the wider social benefits generated by theological education.
- Private colleges teaching theology contribute to economic activity and employment. Their turnover is in excess of \$150 million per year and they employ over 1000 people. If we add in Christian colleges teaching of education, counselling, chaplaincy, business and other subjects the contribution to economic activity would be even larger.
- Although comprehensive data is lacking these colleges are pathways into higher education for many disadvantaged and first in family students.

CHAPTER 8 - COMPARISON TO ALL-SUBJECT RESULTS

For comparison with the religion and theology results I have calculated net benefits and rates of return using the same methods and data sources for graduates of all subjects.

Higher education across all subjects has a value to Australian society of \$67 billion, representing a rate of return to society on its investment of 11.8%. These comprise private benefits to graduates of \$50 billion (rate of return 12.0%), benefits to the government of \$14 billion (return of 9.6 %), and wider social benefits of \$3 billion.

Compared to theology, other graduates have much higher private rates of return (12.0% compared to 6.3%) because earnings for other graduates tend to be higher (especially in fields such as medicine and law) and because the government contributes much more to the cost of other degrees than to theological degrees. Government rates of return are higher for other graduates (9.6% compared to 7.2%) than theology graduates, with the higher tax take from higher earnings in other fields counterbalancing the lower government contributions to theology. Importantly though, overall rates of return to society are higher for theology than other subjects (12.7% compared to 11.8%) driven by the strong spillover benefits from theological education. This demonstrates the economic benefit of theological education to Australian society as a whole, at very low cost to taxpayer

I have not compared theology to other humanities disciplines, but expect the private, government and social rates of return for theology would exceed other humanities disciplines, given the above results for all subjects.

CHAPTER 9 – CHECKS AND SENSITIVITY ANALYSIS

One reality check of my cost data is to add up the student, government and church contributions to various religion and theology degrees and compare to costs of education to the Deloitte (2016) study of costs for universities. Their reasonable cost estimates are around \$13,500 per EFTSU undergraduate per year, and about \$17,000 for postgrads. i.e., \$51,000 for 3-year undergraduate degree and \$34,000 for 2-year postgraduate degree. I have also compared the results to the earlier cost estimates for theological education in Sherlock (2009). Details are in the parameters and data tab of the associated spreadsheet and my cost estimates.

Another reality check comparison of my graduate earnings totals to Norton (2012) lifetime earnings estimates for humanities. Details are in the streams tab of the associated spreadsheet and lifetime earnings are reasonable in comparison to Andrew Norton's estimates.

The robustness of the results can be investigated by examining the sensitivity of net benefit and rate of return estimates to changes in key parameters. I have investigated the following:

- The discount rate of 3% was varied over the range 0%-7%
- The earnings profile steepness parameter of 1% was varied from 0%-2%
- The spillover benefit parameters are perhaps the least empirically well-grounded parameters in this project. I have recalculated results with the direct spillover benefit of \$10,000 per graduate varying from \$0-\$20,000 and the indirect spillover benefit of \$2663 per church attendee of varying from \$0-\$5000.

Results of the sensitivity analysis are given in the sensitivity tab of the associated spreadsheets, and my conclusion is that the results are reasonably robust to changes in these parameters.

CHAPTER 10 - SCENARIOS

Abolition of 25% FEE HELP surcharge for private higher education students.

The main difficulty with simulating the effects of the elimination of the 25% surcharge is the lack of information about price elasticity of demand in Australian higher education. There is also surprisingly little research on this internationally – and international estimates are probably not applicable to Australia with its income contingent loan system. In view of these difficulties I have individually estimated changes in undergraduate enrolments in different types of institutions. I have estimated there will be reallocation from public to private institutions, and a net increase of 6% in undergraduate theology graduations (or 2% increase in all theology graduations) in response to the abolition of the 25% surcharge. If students, most likely postgraduates, are close to their FEE-HELP loan ceilings then enrolments will be even more price sensitive, but quantifying this is not feasible here.

Reestimating net benefits with these enrolment changes means that the overall benefits to society increase \$11m to \$311m, corresponding to an increased rate of return to society from theological education by 0.8% to 13.5%. About half the additional benefits accrue to theology graduates, because of the saving from the abolition of the surcharge and slight increase in the number of graduates, and about half are additional spillover benefits.

Perhaps the most interesting result is that the abolition of the 25% surcharge is approximately revenue neutral for the government. The government loses the substantial revenue from the surcharge, but this is almost compensated for by the reduction in CSP funding as students switch from public to private providers, and by the additional taxation revenue flowing from the increase in enrolments.

A previous attempt to estimate the impact of removing the 25% surcharge from all non-university higher education providers was Wells Consulting (2018) commissioned by COPHE (now IHEA). They argue that the surcharge “distorts access and equity and has not been adequately justified” and present calculations that if abolished “the extra taxes raised will equal if not exceed the forgone repayment of loan fees over the ten years 2019-2028”. They assume an overall 2% increase or 814 students or 555 EFTSU increase in enrolments in non-university higher education providers which is very conservative. They calculate forgone revenue from the surcharge along with additional tax revenue generated by the growth in student numbers at non-university higher education providers. The Wells Consulting exercise is not directly comparable to the present project because it is for all subjects not just theology and the responses of student numbers will be quite different in undergraduate business where university and private provider degrees are much more substitutable than university religion degrees and private provider theological degrees. It is also unclear in the Wells report how substitution with its effects on CSP expenditure and a number of other issues have been dealt with.

Removal of HECS and FEE-HELP for theology students

There have been periodic political calls for the end of government support for theological education, and the end of HELP loans for theology students. Here I investigate the effect of ending HELP loans.

Modelling the effect of student loans on enrolments is complicated. Here I assume that student loans do not alter the NPV of student contributions, but change enrolments through their effect of the availability of loans on the decisions of cash-constrained and risk-averse students. These students will tend to be disadvantaged students who have lower higher education participation rates.

I have projected that removing HELP loans for religion and theology students reduces enrolments by 20% or 409 students. These students are lost to higher education as there is little substitutability between undergraduate theology degrees and other undergraduate degrees, as many students are studying following calls to ministry in their church denominations. Reestimating net benefits with these projected enrolment changes suggests that removing HELP loans for religion and theology students would be very bad for all stakeholders. Theology students lose \$9.3m due to the fall in numbers. Government loses \$10.3m mostly through lost taxation revenue from the drop in student numbers, with only very small CSP savings as most theology study is privately financed. Society loses spillover benefits as the sector contracts and the total loss to society amounts to about \$60m.

Estimates of the effect of removing HELP loans on student numbers are really only guesses in the absence of studies, and I also calculated effects for a projected drop in theology enrolments of 50% which some sector leaders suggested was possible. The effects are similar to my projections reported above but magnified – students lose \$27m, the government loses \$21m and society loses \$157m.

Removing support from theological education would be an ideological indulgence with large costs for the government budget and wider society.

Extending access to CSPs for all theology undergraduates.

While the amount of CSP that private providers would receive under this policy change is known, the effect on fees charged to students at private providers is less clear. I will assume the CSPs received are fully passed through to student fee reductions, and have projected the effect on student numbers at different types of institutions in the associated spreadsheet. I am projecting significant substitution from public universities to private institutions with an overall increase in religion and theology graduations of 83 students or 10%.

Students at private providers gain \$6.5m from the fee savings and the increase in their numbers. Government expenditure rises by \$19m because of the increase in CSPs, which is much larger than the additional tax take from the extra students and other effects. Society overall gains slightly from the extension of CSPs because the gains to students and the spillover benefits from the expansion of theological education outweigh the additional government expenditure.

Extending access to RTP to all theology postgraduate research students.

Levelling the playing field between public universities and private providers accredited to offer postgraduate research degrees will allow private providers to reduce average student contributions to levels similar to public universities. I project that 13 research students will reallocate from public to private between institutions, but total research student numbers will not change. Projected reallocations are detailed in the associated spreadsheet. There is considerable substitutability between religion and theology research degrees at different institutions, much more than at the undergraduate level where students are often training for ministry. These projections probably understate the reallocations as some research students currently enrolled in public university programs in history, philosophy and other subjects closely related to theology may also reallocate to theology programs at private providers.

Restimating with my projected student number changes suggests that the fiscal cost to the government of extending RTP will be about \$2.5m, with benefits to students of \$0.8m and a net overall loss to

society of \$1.5 million that reflects the additional fiscal cost and benefits to students, with virtually no change in spillovers because total student numbers are not changing.

One important factor which is not part of the analysis and which is very difficult to quantify is the improvement in the quality of postgraduate research flowing from extending RTP to all accredited providers. Removing the current funding distortion means students can now be matched with the highest quality provider, which they are in the best position to judge. It would not take much of an increase in the quality of postgraduate research to outweigh the additional fiscal cost of levelling the RTP playing field.

CHAPTER 11 - CONCLUSIONS

The clearest message of this study is that government and wider society benefit significantly from theological education. It generates tax revenue from increased earnings well in excess of government contributions, and also generates large direct and indirect spillover benefits from giving, volunteering, improved health, reduced crime, enhancement of social capital and societal happiness. Most of the cost of theological education is currently borne by students and churches.

Some policy changes would make the net benefit from theological education even larger. These include abolishing the 25% loading on private provider HELP debts, and extending CSPs to all theological providers. Levelling the playing field for postgrad research would cost the government money but generate other benefits. Giving in to advocacy to abolish HELP loans and other assistance to theological education would be a costly ideological indulgence for both the government budget and wider society.

The scope of this study has been limited by time, budget and data constraints, and much work remains to be done to gain a clearer picture of the role of theological education and research. High priority extensions include:

- Investigating the economic contribution of theological research.
- Investigating the potential for theological institutions to grow international student numbers, and the economic contribution of this.
- Investigating the participation of equity groups (including regional students, low SES background students, and students who are first in family in higher education). Anecdotally these equity groups are overrepresented among theology graduates, but we do not have systematic data.
- Occupation and industry destinations of theology graduates.
- Quantifying the indirect spillover benefits of theological education in Christian NFPs and schools.
- Data envelopment analysis of costs of private higher education compared to public universities
- Further investigation of the religious labour and product markets in Australia. For instance Granger causality testing of relationship between clergy and attendee numbers.

Annual updates of the Portrait of the sector may be worthwhile.

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APPENDIX: MS Excel Spreadsheet Portrait of the Sector

APPENDIX: MS Excel Spreadsheet Model and Calculations