NERI Working Paper

We Need to Talk about Higher Education

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1 Introduction

Education and skills are key to economic and social progress.

Economy and society in Ireland is at a critical juncture. Previous economic development was characterised by a heavy reliance on efforts to promote a competitive global tax position allied to favourable domestic conditions and policies. Among such policies was a sustained investment in human capital. However, future economic success is likely to depend even more on our ability to adapt and compete on global markets. Part of such a strategy will be the growth in export-orientated domestic enterprises driven by high skills. Innovation, knowledge-collaboration and entrepreneurship are increasingly crucial for the development and management of high value-added services and products (Organisation for Economic Cooperation and Development 2012a). Higher Education and skills development have a vital role in the fostering of that innovation.

Higher Education sits within a multi-level learning system that embraces many levels from pre-school to adult and continuing learning throughout life. Typically, Higher Education refers to the formal component of 'post-school' education which includes a high level of theoretical and applied knowledge. It is defined to include university as well as non-university tertiary education and is distinguished from various forms of further or post-school vocational training which are deemed to be outside the scope of Higher Education.[1] In the case of the Republic of Ireland[2], Higher Education refers to courses and programmes of formal education which are at a 'higher' or advanced level from Level 6 of the National Qualifications Framework and upwards[3]. It includes all undergraduate and postgraduate courses, full-time and part-time, in institutions aided by the Higher Education Authority or Department of Education and Skills as well as institutions that are mainly or entirely privately funded[4].

Higher Education has become the new educational frontier.

The number of places in Higher Education tends to be demand-led but supply constrained given pressure on available places especially in high-demand fields of study. Demographic pressures constitute an important driver of demand especially in the case of the Republic of Ireland where there is a strong tradition of direct transition from upper secondary education to Higher Education. A majority of school leavers did not progress to Higher Education in the 1980s. Many entry-level jobs, up to then, in public administration, semi-state and private sectors did not require a Higher Education qualification even though a rising number of people were progressing to Higher Education.

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[1]The term 'Higher Education' is synonymous with 'tertiary' education as used by organisations such as OECD or the European Commission. The term 'third level', although used extensively in the Republic of Ireland, is avoided throughout this paper as it tends to be unique to that jurisdiction.

[2] For the remainder of this paper 'Ireland' is used as shorthand for the Republic of Ireland.

[3] Some Level 6 courses are not at Higher Education level.

[4] Some colleges may derive more than 50% of their funding from private sources but remain within what is termed the publicly-aided system.

As two out of three school leavers enter Higher Education before the age of 23, Higher Education has become the new educational norm in Ireland for young people previously occupied by the Primary level certificate in the 1950s and the Leaving Certificate in the 1970s. An estimated 47% of young people between the age of 25 and 34 had a Higher Education qualification in Ireland in 2012[5]. This was the fourth highest in the European Union. The proportion of females with a qualification was 53% compared to 40% for males in this age group.

People frequently return to Higher Education later in their work career to top up or broaden their initial qualifications. In today's world a primary university degree is often regarded as only the first step towards enhanced qualifications. Pathways to Higher Education have become more flexible and varied as entrants combine work experience and recognised life skills with more formal academic requirements to undertake new courses in Higher Education. Not infrequently a Higher Education qualification is combined with a post-school apprenticeship or vocational certificate. The transformation of the labour market with the up-skilling of many occupations is pushing demand for vocational and university education pathways and partnerships (Organisation for Economic Cooperation and Development, 2012b).

Table 1Trends in full-time enrolment in Higher Education1970-2013 (DES aided only)

1973	1983	1993	2003	2013 (estimated)
26,490	46,335	81,050	129,283	164,498

Note: Reference date for enrolment is March of each year. For 2003 and earlier years the reference date, in the case of non-university institution was September of the previous year. Source: Department of Education and Skills.

Higher Education constitutes an important component of what many economists refer to as 'human capital investment'. It is widely accepted that investment in education, and Higher Education in particular, had a very significant part to play in laying the foundation for Irish economic success over recent decades. Participation in Higher Education has risen sharply over time reflecting the importance of a qualification at this level for access to employment in many occupations and sectors of the economy (Table 1). However, the huge growth in Higher Education has placed considerable pressure on human, financial and capital resources in the sector.

In March 2013 there were approximately 165,000 full-time students of Higher Education in DES publicly aided colleges[6]. When part-time Higher Education students are included the total, in 2012, came to almost 200,000 (Table 2).

[5] Central Statistics Office (2012) Measuring Ireland's Progress

[6] There were, in addition, approximately 3,500 full-time students in publicly-aided colleges not funded through the Department of Education and Skills.

Table 2 Total enrolment in Higher Education (HEA funded institutions only), 2009-2013

	2009	2010	2011	2012	2013
Undergraduate enrolments					
Full-time	124,990	133,849	139,092	141,226	142,718
Part-time	20,456	19,097	19,355	20,616	21,130
Sub total	145,446	152,946	158,447	161,842	163,848
Postgraduate enrolments					
Full-time	20,700	22,419	21,880	21,560	21,780
Part-time	11,242	12,801	12,860	12,785	14,051
Sub total	31,942	35,220	34,740	34,345	35,831
Total Full Time	145,690	156,268	160,972	162,786	164,498
Total Part Time	31,698	31,898	32,215	33,401	35,181
Overall Total above	**177,388**	**188,166**	**193,187**	**196,187**	**199,679**
Flexible Learning			2,939	3,821	2,825

Note: Reference date for enrolment is March of each year.

Public funding has not kept pace with expansion in Higher Education.

The decision, in 1994, to extend free tuition to qualifying full-time under-graduate students in all publicly-aided institutions of Higher Education was a significant milestone in terms of public funding. However, the continuing increase in student numbers has not been matched by a corresponding increase in public funding with the result that some students have had to pay more by way of higher tuition fees for part-time or postgraduate courses or student charges at registration each year. The latter charges have become, de facto, charges for tuition. The current funding arrangement constitutes considerable continuing pressure on many households. Over the coming decades Higher Education will compete with other levels of education as well as other areas of social expenditure for public funds.

The focus of this paper is on the funding of Higher Education.

This paper explores the current options for funding Higher Education in the Republic of Ireland into the future taking account the fiscal consolidation of the public budget, the increased demand for places in Higher Education courses and the central role of Higher Education in economic development. The paper aims to contribute to a much needed debate on choices and costs.

A debate on the funding of Higher Education is timely especially in the context of increased international competition for student and staff talent as well as research and teaching excellence. Yet, it is important to recognise the public and moral role of Higher Education – not primarily as a commodity but as a public service and good which fosters inquiry, creativity and social progress all of which have important economic impacts. A balance must be struck between different demands on Higher Education to ensure that its integrity and mission is safeguarded while recognising the

diversity of traditions and recent developments across the sector from courses in further education colleges to the provision of online learning.

2 Higher Education is vital for economic development

2.1 The concept of human capital investment in Higher Education

When carefully used, 'human capital' can be a useful metaphor to consider the role of learning in the economy…

It is conceptually useful to acknowledge the nature of education as a 'good' which confers benefits – spiritual, cultural, economic and personal – on the learner. This is not to confer on education the status of a commodity which can be simply bought and sold like any other commodity. Fundamentally, education is about leading out[7] the potential in each individual. It enables individuals acting in community to realise their goals, potential and intrinsic value. The metaphors of 'human capital' and 'human capital investment' are useful to draw attention to the very real and measurable benefits of investing time, money and effort in organised education and training. However, this way of conceptualising learning is limited because:

- Not all learning takes place in formal education and training institutional settings;
- Human skill and capacity are not tradable, marketable and quantifiable as other forms of capital are.

..while acknowledging both the public and private 'good' aspects of 'investment'

At best, 'human capital' is a term which enables us to discuss the value of learning in current economic debates over resources and priorities. In this paper the focus, conceptually and empirically, is narrowly on the quantifiable 'costs' and 'benefits' of formal and organised education at the higher level. 'Benefits' are sub-divided into 'private' and 'social' to the extent that it is possible to measure in a very limited way some aspects of the impact of more education on earnings, employment and public finances using data from the labour market.

There is an extensive international literature on the economic impact of education and learning. The term 'human capital' was coined by economists in the 1960s to describe the ways in which formal education and training together with cumulative experience contribute to economic productivity and wider social well-being. The level and type of skills acquired or possessed by individuals is treated as a form of economic capital with a return in the form of higher productivity and earnings throughout the course of an individual's life.

The coexistence of both 'private' (or individual) and 'social' benefits flowing from investment in education implies that it is important to view all forms of education (and not just Higher Education) as a mixture of private gain and public good. Education is a public good which, in the absence of appropriate public support, might be undermined through lack of investment by individuals and private groups. Even though primary and secondary education confer private as well as social benefits it is widely accepted in most advanced economies that the bulk of expenditure for education at these levels ought be from public sources. Completion of education to upper secondary level or equivalent is seen as a desirable public goal and one that is worth supporting by means of

[7] The latin term *educare* means to lead out.

public expenditure even if in many countries (including Ireland) there continues to be significant outlays of private or household spending associated with education up to this level. It is also the case that employers spend on vocational education and training in the case of apprenticeship training systems of provision in many parts of Europe. Ireland is no exception given employer PRSI contributions to the National Training Fund, for example.

The 'social' outcomes of learning have been widely researched and reported.

In the case of Higher Education there is less unanimity about the appropriate mix of public and private funding. Since individuals stand to gain considerably from education at this level (compared, that its, to the counter-factual of not completing Higher Education) the relative private gains from Higher Education (measured as higher lifetime income and employment levels) are viewed as a justification for levying some fee or charge on individuals undertaking Higher Education to cover some or most of the cost of providing this education. However there are, at the same time, significant public or social benefits flowing from Higher Education such as the measurable 'spill-over' impacts on growth, productivity and income for everyone. There is also evidence to show that Higher Education contributes to higher rates of social participation, health and civic life (Organisation for Economic Cooperation and Development, 2007). The personal, cultural and democratic gains of education at all levels should be acknowledged.

2.2 Economic growth theories and Higher Education

A renewed interest in 'human capital' accompanied new economic growth theories in the 1990s

As part of the new economic growth literature of the 1990s there was a renewed interest in human capital both as a concept and an agent of development in advanced economies. It followed previous spurts of interest including the 'Nation at Risk' report of 1980 in the USA and the seminal work of Gary Becker and others in the 1960s (Becker, 1964). A rise in fiscal solicitude in the US and Europe in the 1990s because of pressure on public budgets and the growing competition for public resources put ministries of labour and education under pressure to demonstrate the economic value of, and returns to, education and training. The role of knowledge as a key driver of growth in Gross Domestic Product was also recognised in the work of Romer (1990),Lucas, 1988, Barro and Sala-i-Martin (1995) and the Organisation for Economic Cooperation and Development (2005).

The 'new growth' theories that sprung up in the 1980s emphasised the contribution of new designs and ideas created by research and development and knowledge-intensive sectors and their impact on the productivity of physical capital investment in other sectors. Internally generated technical change, increasing returns to scale and the know-how acquired in the course of technology-intensive production fuel growth in output. For example, a growing, 'leading-edge' export sector can leverage knowledge and innovation throughout the whole economy through mobility of skilled labour and entrepreneurs leading to dissemination of new technologies and products.

As the role of education and learning in generating new technology and innovation began to receive more emphasis some policy makers at national and international inter-governmental levels embraced the notion of human capital with enthusiasm. Education, skills and knowledge were seen as supply-side answers to enduring labour market problems and increased international competition from low-cost economies.

..with Higher Education playing a key role in generating research and innovation

Higher Education was important for the development of innovative research and the ability to acquire and adopt it. Some "new growth" theorists sought to build a more complex model, accounting for human capital formation by giving prime importance not just to education itself, but also to its by-products such as research and innovation. Collaboration between universities, government and enterprises increase knowledge transfer and spin-off economic activities – all of which contribute to long-term economic development. Aghion, Boustan, Hoxby and Vandenbussche (2005) found, in the case of the USA, strong support for the hypothesis that investments in higher-level education are substantially more growth enhancing for States that are close to the technological frontier.

The Irish economic success story of the 1990s was linked to earlier investments in human capital

The example of Irish economic success, especially in the 1990's, illustrates these points. Economic development is likely to have been associated with decisions made and policies implemented in the period of 1960-1980. These included the implementation of 'free' secondary level education in the late 1960s and the expansion of Higher Education including the Regional Technological Colleges and technological universities throughout the 1970's and 1980s. While many factors combined to enable fast growth in productivity and living standards in the period 1990-2007 there is compelling evidence that rising levels of skills and educational qualification greatly facilitated inward investment, growth in domestic and foreign enterprises as well as the development of key high value-added sectors (Healy and Slowey, 2006).

In addition to the diffusive impact of Higher Education on economy and society through enhanced skills and capacity there is a significant impact through the amount of resources devoted to Higher Education – typically between 1 and 2% of GDP in most OECD countries as well as in the numbers employed in the sector. Earnings from international trade in educational services and mobility of Higher Education students and researchers constitute a growing segment of economic activity and one where Ireland as an English-speaking society in a very integrated global market for ideas and services stands to benefit.

2.3 Individual and social benefits from Higher Education

Higher Education graduates earn on average 75% more over a lifetime..

Higher Education graduates earn more than other workers, on average, across their working lives. A measure of what economists refer to as the crude 'wage premium' on Higher Education is provided by the ratio of average earnings of Higher Education graduates to those of upper secondary[8] graduates (Leaving Certificate equivalent) at one point in time. The data shown in Chart 1 are taken from Education at a Glance Indicators and compare OECD countries for which data were available in 2010 or 2011. Ireland had a ratio of 175 meaning that Higher Education graduates in employment earned, on average, 75% more than other workers, in Ireland, who had upper secondary educational attainment but not Higher Education. 75% is the crude measure of the Higher Educational premium

[8] The comparison refers to non-tertiary post-secondary or upper secondary education.

in the case of Ireland. This ratio compares with an OECD average of 57% in 2011 for those countries reporting data. While care is needed in comparing data over time it appears that the estimated Higher Education wage premium in Ireland has increased between the year 2000 and 2010. However, it should be noted that the OECD average has increased as well.

But many factors other than education influence earnings …

The crude or statistically unadjusted wage premium does not provide an estimate of the additional earnings resulting from additional Higher Education due to the intrusion of many other factors which impact on the distribution of earnings including wage bargaining, age structure and other reasons. There is an extensive econometric literature which has explored the pure earnings impact of education at different levels. While estimates vary across studies the consensus finding is that there are significant additional earnings to persons as a direct consequence of undertaking Higher Education.

Benefits arising from additional education in the form of a wage premium for any given level can be compared to the cost of investing in additional education. A return on investment in more education may be calculated by comparing an estimated flow of benefits over a lifetime with a flow of costs as these are incurred early on in life. This methodology based on the calculation of a 'net present value' of a future flow of benefits and use of an internal rate of return or discount factor resembles estimations of financial return on other forms of investment in physical or financial capital.

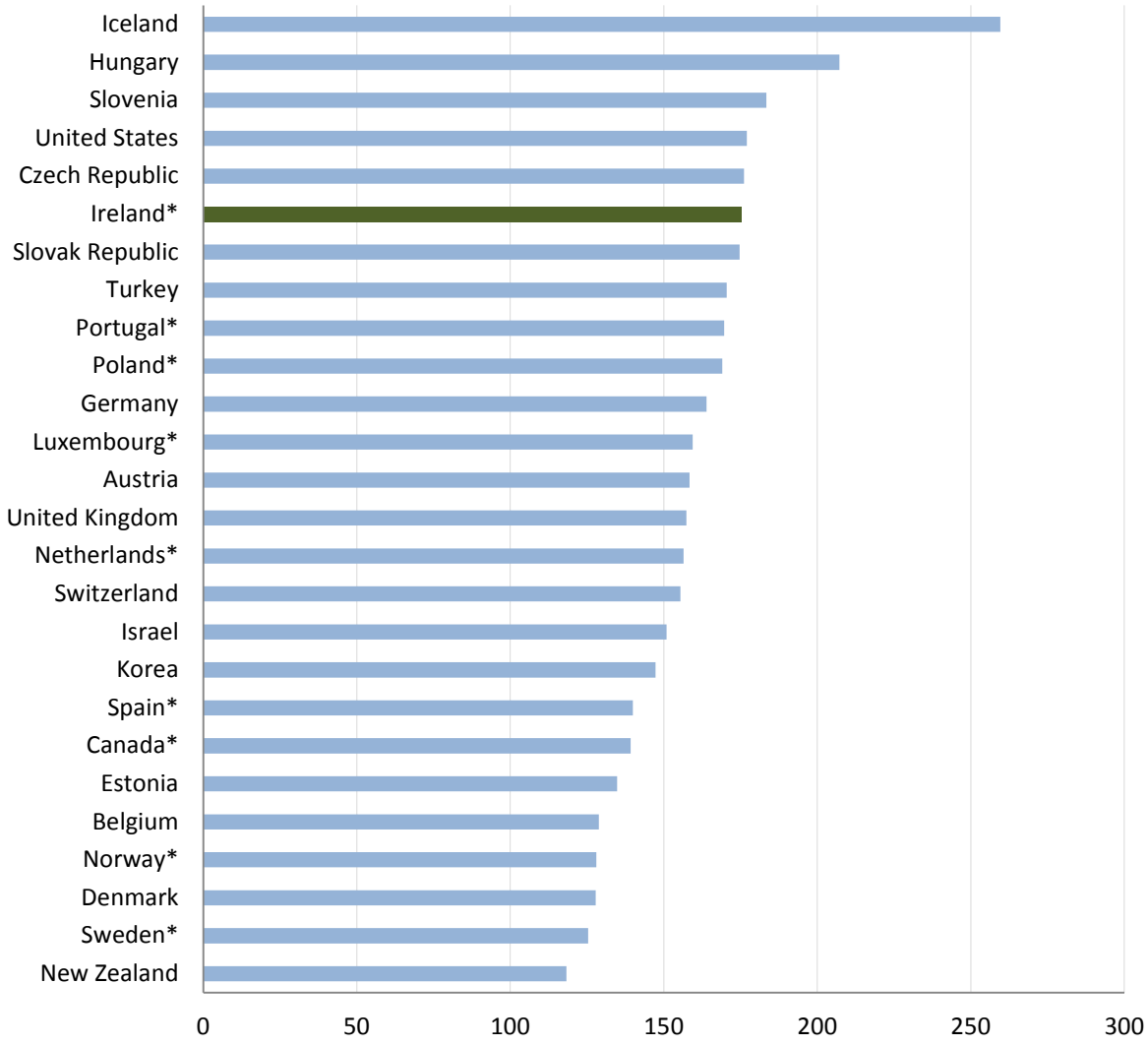
The 'Net Present Value' (NPV) of a projected future flow of net benefits is calculated as:

- the annual estimated flow of additional earnings as a result of more education;
- less the cost of initial additional years of education; and
- discounted by some annual benchmark rate of interest to reflect the forgone benefit of investing in human capital.

The Net Present Value (NPV) is defined as the amount which would have to be invested to achieve a comparable flow of future returns based on the estimated additional earnings to individuals over a lifetime of employment.

Chart 1 Relative gross earnings of 25-64 year olds in employment in 2011

(100 = average earnings of upper secondary or non-tertiary post-secondary graduates in each country)



Source: Indicator A6.1 from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)

Notes: * denotes countries where data refer to 2010.

Graduates face significant upfront private costs in undertaking studies..

The OECD presents the estimated lifetime ***private costs of investment*** in obtaining Higher Education under the following headings:

- Direct costs (tuition fees and costs of educational materials);
- Forgone earnings (net of taxes) as a result of delayed entry to the labour market;
- Additional income tax paid by individuals;
- Additional social contributions in employment; and
- Fewer social transfers received by individuals as a result of higher income or lower unemployment.

…while they experience significant gains over the lifecycle.

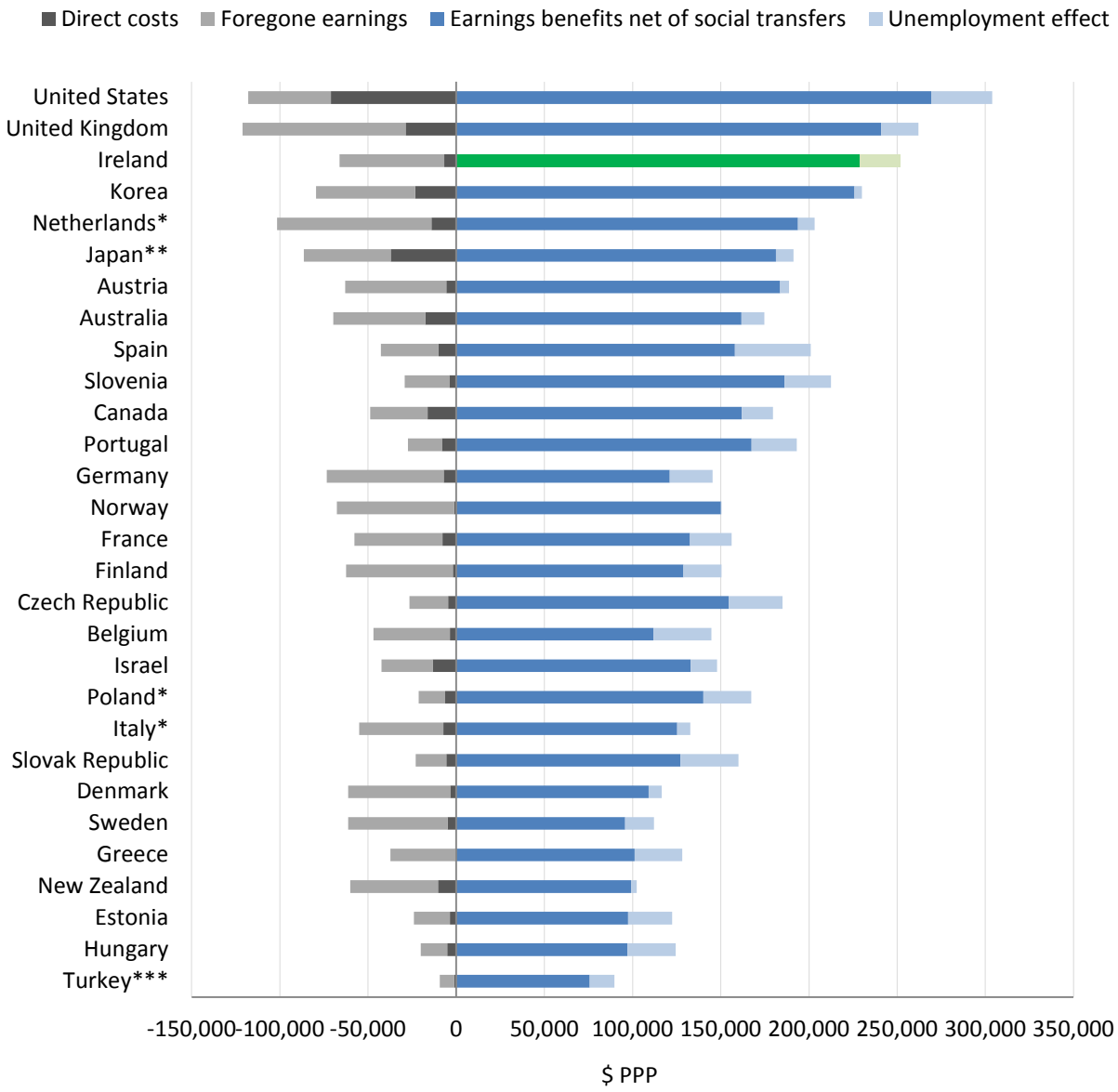
The OECD presents the ***private benefits of investment*** in obtaining Higher Education under the following headings:

- Additional gross earnings;
- Lower unemployment; and
- Grants paid to students when studying to offset direct costs.

In presenting data the OECD distinguish men and women due to the very different labour market trajectories and lifetimes earnings of each sex. The data estimates in respect of women obtaining Higher Education are shown in Chart 2, below, and are taken directly from the latest edition of OECD Education at Glance (indicator A7.3 – Organisation for Economic Cooperation and Development, 2013a). The data provided by OECD for women show Ireland with the highest estimated private net present value of any country. A similar pattern emerges for men where Ireland comes second after the USA. Staying with the comparison for women (Chart 2 below), the components of cost and benefit show that the main point of difference for Ireland lies in gross earnings. These are much higher in the USA and in Ireland for women (as well as for men). Putting the various components of private cost and private benefit together an estimated private 'rate of return' for women in Ireland is reported for 2009 as 14.2% - well above the OECD average and in 10th place out of 29 countries for which data were reported. The corresponding figure for men was 19.8% - also well above the OECD average.

Using estimates of lifetime earnings together with various costs and benefits of additional Higher Education it is possible to conclude that Higher Education graduates in Ireland have a higher private rate of return compared to similar graduates elsewhere. This impact is mainly explained by the higher degree of wage inequality in Ireland which, in turn, is related to educational attainment. Ireland differs markedly from Scandinavian countries where both the private rate of return and the estimated additional gross earnings are lower than in Ireland. This holds true for both men and women.

Chart 2 Private costs and net benefits for a woman attaining tertiary education (2009)



* 2008 data **2007 *** 2005

Source: Indicator A7.3b from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)

But social returns are also very significant.

The 'social return' as estimated and reported by OECD in Education at a Glance is based on a very partial and incomplete estimation of additional income taxes and social contributions of workers as a result of higher earnings and rates of employment as well as lower social transfers to individuals as a result of lower unemployment and periods of out of work. The 'social' rate of return takes no account of macro-economic impacts such as spill-over effects on productivity at the firm or regional level of investment in human capital.

In estimating 'social returns', the OECD presents the estimated lifetime ***public costs of investment*** in obtaining Higher Education under the following headings:

- Direct public costs of providing tuition;
- Public forgone taxes on earnings as a result of delayed entry to the labour market; and
- Grants paid to students for tuition.

The OECD presents the ***public benefits of public investment*** in obtaining Higher Education under the following headings:

- Additional income tax as a result of higher earnings;
- Additional social security contributions as a result of higher earnings; and
- Lower social transfer expenditure.

The estimated public net present value for both men and women in Ireland is also high compared to other countries. This is mainly driven by higher tax revenue from higher gross earnings. The estimated public 'rate of return' is reported as 13.7 and 17.0%, respectively, for women and men in the case of Ireland. Long-term shifts in labour market conditions and patterns of behaviour mean that the actual outcome will differ very significantly compared to the estimated or projected outcome using historical or one-point-in-time data estimates.

In summary, this section has shown that, whether measured in terms of public returns or private returns, Higher Education has a significantly positive impact for individuals and Governments.

3 Recent patterns and trends in funding for Higher Education

3.1 Patterns of Higher Education funding across the OECD

There is no one model for funding Higher Education across the globe.

There is no one model for funding Higher Education across OECD countries. Typically, European countries tend to rely on public sources of funding while English-speaking and Asiatic OECD member countries rely more on private sources including corporate and household payments. While still close to the European pattern Ireland has been gradually moving towards a greater private share of funding as student charges and tuition fees have been increased.

But it is clear that most countries have moved towards a greater proportion of private funding

In a growing number of English-speaking countries tuition fees have been increased or introduced to lower the public cost of Higher Education and to transfer more the cost to students. In some cases, these measures have been complemented with the introduction of student loan schemes whereby graduates repay low-interest loans over a long period of time. Where tuition fees are charged these may reflect only part of the total cost of providing a course. In many cases, public authorities provide direct financial aid to households to cover the cost of tuition or student living costs. Subsidies may also be provided towards accommodation, travel and educational material such as books and equipment purchased by students.

In recent years, public authorities in many countries have used competitive funding mechanisms including institutional performance-related funding with the aim of maximising efficiency in the disbursement of public funds. Increasingly, Governments in countries such as the UK have adopted or encouraged policies of competitive tendering, outsourcing of administrative services, higher student fees or charges and greater institutional autonomy in regards to spending. The role of the market has increased both in terms of funding courses, student choice (seen as 'consumers') and institutional relationships with commercial actors. These trends do not sit easily with the goal of Higher Education, and universities in particular, as places of collegial learning, autonomy and social (not-for-profit) purposes.

Total spending on Higher Education is typically between 1 and 2% of GDP across the OECD..

In most OECD countries the cost of operating Higher Education institutions absorbs between 1 and 2% of Gross Domestic Product (including the contribution of households and corporations). Four of the Scandinavian countries – Sweden, Finland, Norway and Denmark – have total expenditures in the 1.7-1.9% of GDP range. At 1.6% in 2010, Ireland is somewhat above the EU average[9].

In the case of Ireland the share of GDP devoted to Higher Education has increased over the last 20 years from 1.3% in 1995 to 1.6% in 2010 (Chart 3). The contraction in GDP and the delay in adjustment to public expenditure by a year after the contraction of 2008-2009 saw an increase in

[9]Where this average is reported by OECD as the un-weighted mean for 21 European Union Member States that are also Member Countries of the OECD.

total spending to a level of 1.6% in 2010. This proportion is likely to have fallen in later years as GDP grew and total public spending on Higher Education fell significantly[10].

At 2.8% of GDP, the USA is the top OECD Higher Education spending country. European countries lag behind the USA where, in the case of the latter, the funding scale and international status of some of its Higher Education institutions is considerable. This gap may explain some of the differences in competitive performance and innovation between Europe and the USA. However, most of USA funding is from private sources. 1.8% of GDP is spent by private sources on Higher Education compared to only 1% of USA GDP from public sources. Whereas the share of public funding in total Higher Education spending is over 90% in most EU countries for which data are reported and was over 80% in the case of Ireland, in 2010, it was below 55% in the following countries: United Kingdom, Australia, United States of America, Japan, Chile and Korea. Within private sources, contributions by 'other private entities' including private corporations accounted for a high proportion in a number of countries including the USA, the UK and Canada.

With a move towards greater private funding in some countries …..

A clear divergence has opened up in recent decades between a number of countries which have maintained or led the way in increasing the relative share of private funding compared to public. Australia and the UK, in particular, have seen a large fall in the relative share of public funding in total Higher Education spending. In the case of the UK the share of public spending is gone from 80% in 1995 to 25% in 2010. Ireland has been unusual because, here, the share went from 70% to 81% over the same period. An interesting feature of this 15 year period is that, in the case of Sweden, Finland and Denmark, there has been only a very small fall in the share of public spending which remains at over 90% of total Higher Education spending in those countries. This is in spite of significant fiscal consolidation measures in Sweden and Finland in the 1990s[11].

Ireland, in 2010, was about average in terms of spending per capita or spending as % of GDP.

Turning to public expenditure and relating the total level of public expenditure on Higher Education institutions to the total number of students (full-time equivalent total in publicly-aided institutions) Ireland is around average in a list of OECD countries for which data were available (Chart 4).

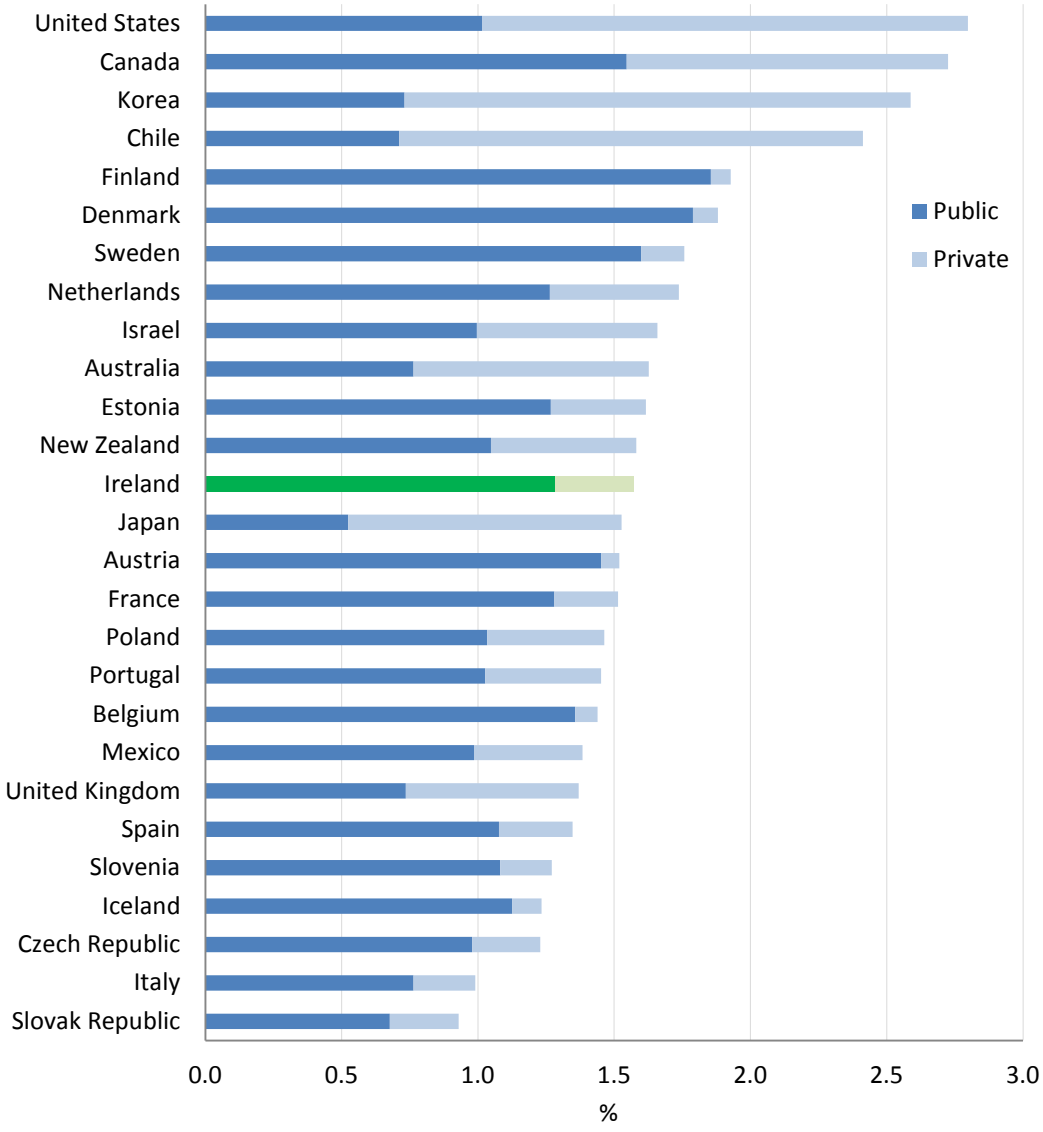
As with other levels of education, a key component of total expenditure on Higher Education is staff pay. Using international comparisons contained in OECD (2013) the proportion of total current spending (including research) which goes on staff pay was 71.9% in 2010 in the case of Ireland. This figure is not hugely different from the corresponding reported OECD average of 68.9% suggesting that as a proportion of total expenditure and of GDP expenditure on staff is broadly in line with OECD norms. Total staff numbers in HEA funded institutions has fallen from 23,920 in 2008 to 22,638 in 2012. There has been a marked shift in the composition of staff over this period with a fall

[10] Revised estimates for the public services in 2014 show a fall of 4% in nominal spending.

[11] Data cited are from indicator B3.3 of Education at a Glance (2013).

of 10% in core academic staff and an even larger fall among core non-academic staff (17%) but with a rise in non-core staff (up 36%)[12].

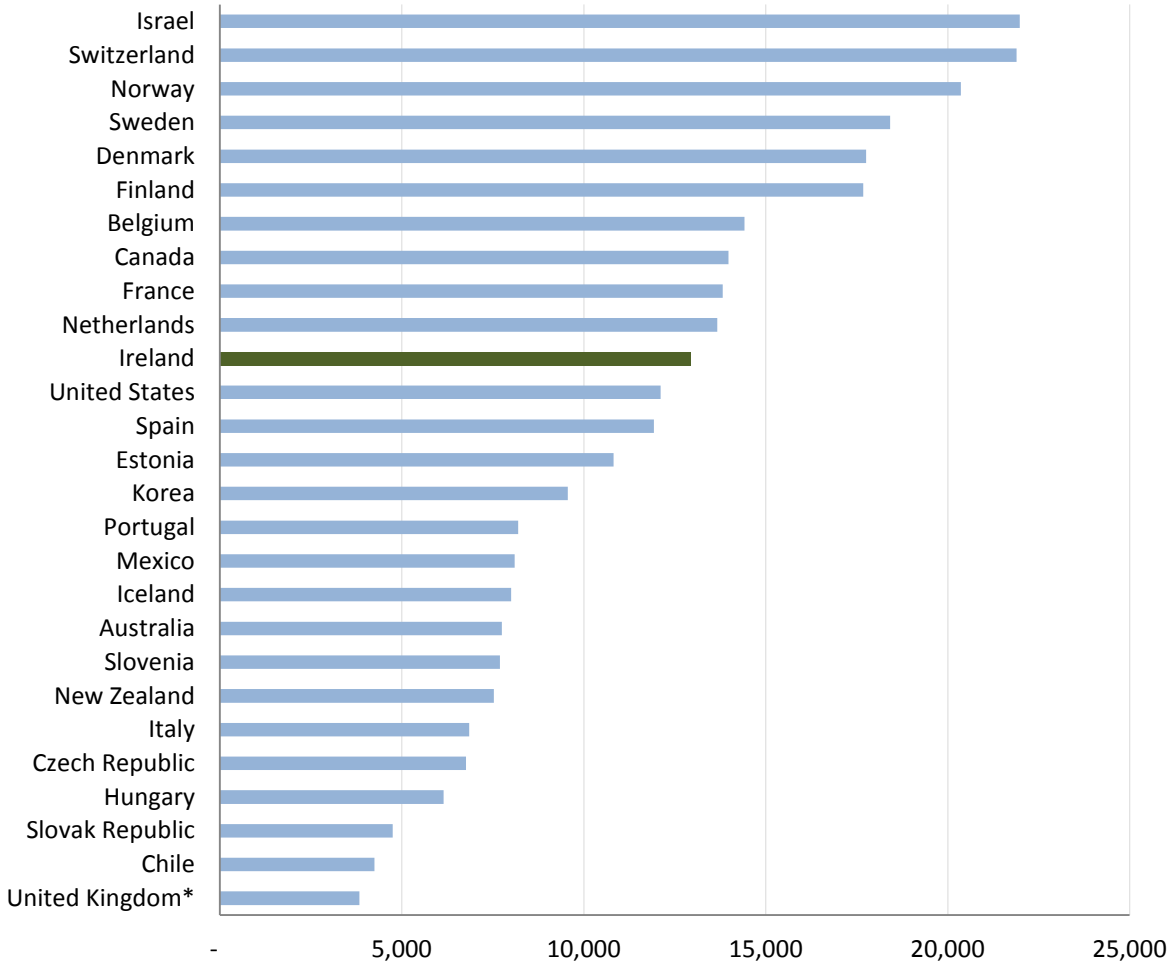
Chart 3 Total expenditure on educational institutions at tertiary level as a percentage of GDP, by source of fund, 2010.



Source: Indicator B2.3 from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)

[12] Data were obtained from HEA Statistics Section.

Chart 4 Public Expenditure on Higher Education Institutions per Student in public institutions only, 2010 (US$ at constant PPP)

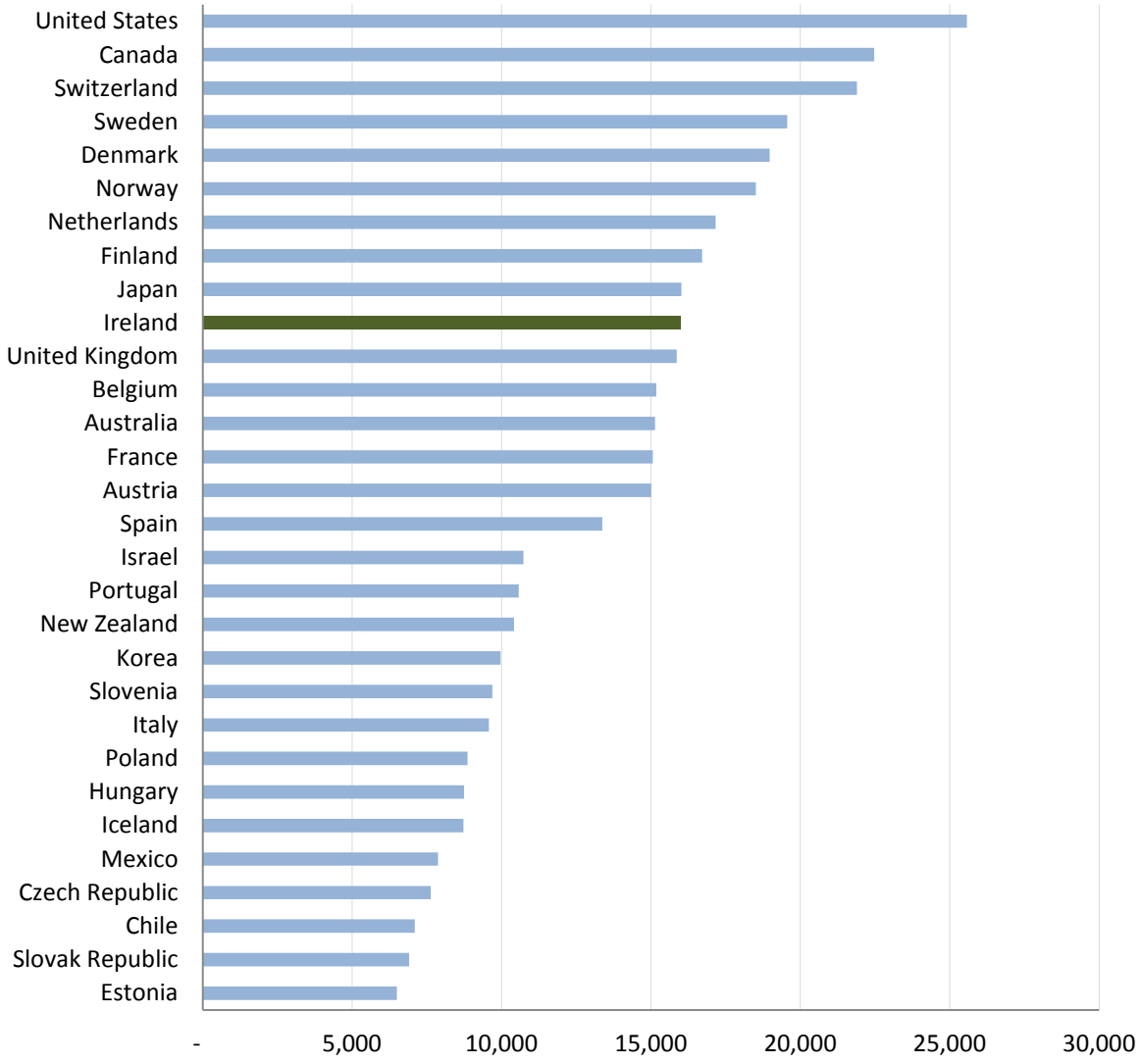


Source: Indicator B3.4 from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)

Note: * Data for the United Kingdom refer to public expenditure in respect of institutions which are classified as private. Estimates are based on total spending (current and capital) and are converted from national currencies by use of PPPs.

If total private expenditure is included in the total, spending per student in Ireland emerges as 10th from the top (Chart 5). The comparisons shown in Charts 4 and 5 – although adjusted for price differences– are affected by very different levels of GDP per capita in OECD countries where Ireland is well above the OECD average. By dividing total spending per student by GDP per capita is it possible to control for differences in national prosperity across countries. Chart 6, below, shows Ireland relative per student spending well below average in 20th place out of 30 OECD countries for which data were available.

Chart 5 Total (public and private) Expenditure per Student in Higher Education in all types of institutions, 2010.



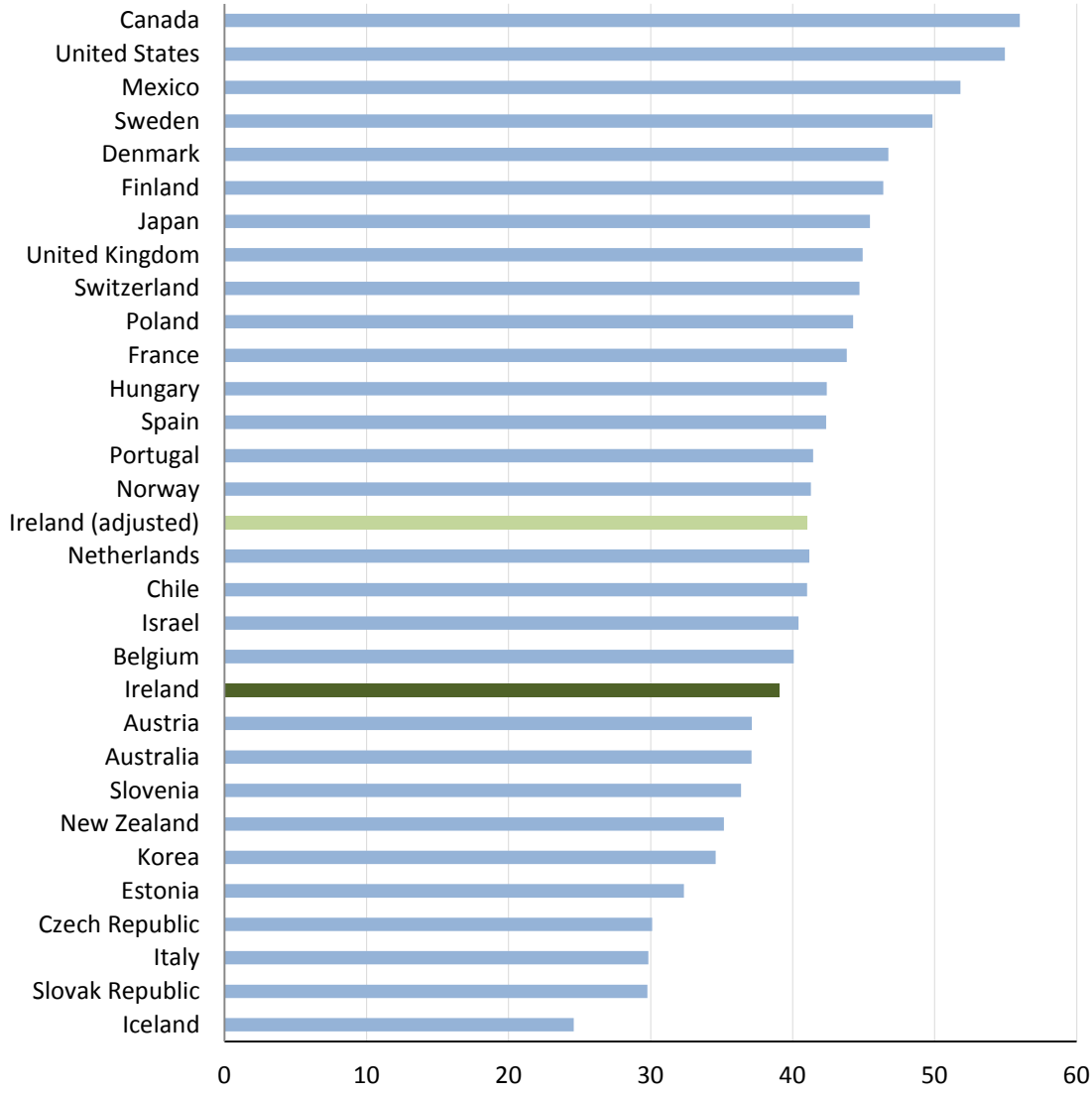
Source: Indicator B3.1a from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)Note: Estimates are based on total spending (current and capital) and are converted from national currencies by use of PPPs.

Ireland is probably not much out of line with other OECD countries when the level of income per capita is taken into account.

It must be borne in mind that estimated GDP per capita incorporates economic activity that is counted as part of Gross Domestic Product but is exceptionally and heavily influenced by the practice of 'price transferring' among multinational companies, thus rendering international comparisons of levels of GDP somewhat problematic in the case of Ireland. Gross National Income or Gross National Product may be regarded as more accurate indicators of the available national income and expenditure in a given year. However, all of GDP is taxable by public authorities in Ireland and to that extent it is appropriate to consider it as part of the total national 'tax base' from

which public (and private) monies may be spent on Higher Education. A compromise calculation based on a hybrid of GDP and GNI may be considered to reflect (a) the potentially misleading and distorting impact of using GDP as a result of price transferring and (b) the relevance of at least some portion of total income generated by internationally mobile investment for the purposes of taxation and expenditure within Ireland. Using a hybrid measure[13] the ratio of total spending per student to GDP (adjusted) per capita is 41 in the case of Ireland placing it at around the OECD average (Chart 6).

Chart 6 Total Expenditure per Student in Higher Education divided by GDP per capita, 2010.



Source: Indicator B1.4 from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a)

[13] The adjustment is an arbitrary one weighted towards GDP more than GNI. GDP (adjusted) = GDP*0.65+GNI*0.35

3.2 Recent trends in Higher Education funding in Ireland

Higher Education in Ireland has taken a disproportionate hit since 2006.

The estimated or projected expenditure, from exchequer sources, on Higher Education including research and student support services is just short of €1.5 billion in 2014. Contained within these figures is approximately €300 million in 2013 in 'free fees' claims by colleges in respect of full-time EU undergraduate students who qualify for free fees (Table 4). This was complemented by an estimated €340 million in the student charge for undergraduate courses in 2013 as well as approximately €460 million from tuition fees in 2010/11 and €180 in 'other income' in 2010/11[14].

Table 3 Total Estimated Exchequer Expenditure on Education in 2014 (€'000)

	2011	2012	2013	2014
First, Second and Early Childhood Levels	6,135	6,082	6,076	5,981
Skills programmes	428	391	362	351
Higher Education	1,678	1,642	1,543	1,456
Capital	626	487	501	614
(Less Appropriations in Aid)	*(618)*	*(580)*	*(580)*	*(554)*
TOTAL	**8,248**	**8,022**	**7,918**	**7,849**

Source: Department of Education and Science

Table 4 Exchequer Funding for Higher Education in 2014 (€'000)

		2009	2010	2011	2012	2013	2014
A	Current Expenditure	1,849	1,776	1,688	1,591	1,533	1,467
B	Capital	201	164	79	56	60	35
C=A+B	Total of above	2,050	1,940	1,767	1,647	1,593	1,502
D	'Free Fees' payments by exchequer included above	340	411	407	365	303	267
E	Student support payments by exchequer included above*	307	364	357	338	339	356

Source: Department of Education and Science

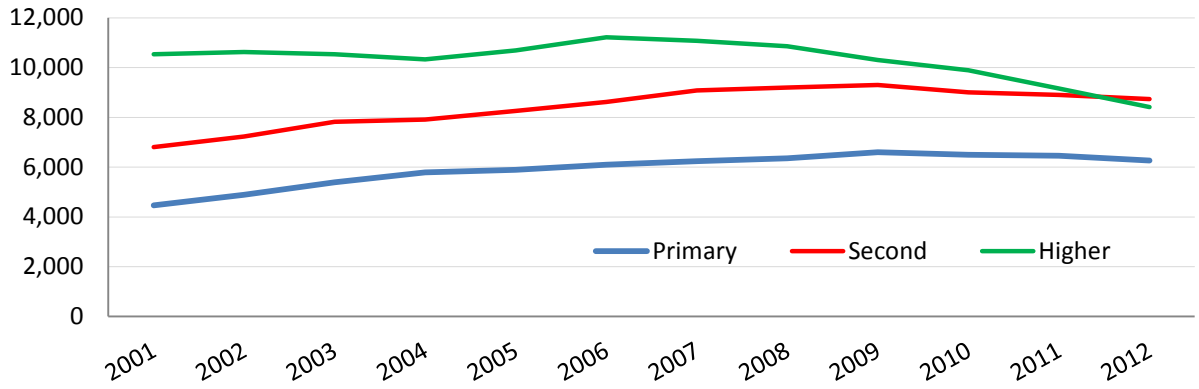
Note: * payments to Post-Leaving Certificate students are included in this figure

Following a number of years of fiscal retrenchment Higher Education has been severely stretched. A rising numbers of students has not been matched with a commensurate increased in overall public expenditure. Data published by the Central Statistics Office/Department of Education and Skills show

[14] The latter data for 2010/11 data were obtained, on request, from the HEA. Data for later years were not available.

a sharp fall in the real value of public expenditure per student in Higher Education since at least the early 2000's (Chart 7 below)

Chart 7 Trends in Real Current Public Expenditure per Student in Higher Education and other Levels, 2001-2012



Source: Central Statistics Office, Measuring Ireland's Progress, Table 4.1 (2012).

The data presented in Chart 7 indicate three significant trends:

- a significant deterioration in the real value of current public spending per student at Higher level since 2006 (two years before the onset of the fiscal and banking crisis);
- a lower level of real spending per student, in 2012, than a decade previously; and
- a reversal of the position of Higher Education vis-à-vis second level where, for the first time, the real value of spending per student at second level is more than that at Higher Level in 2012.

..with rising student numbers not matched by increased funding.

The deterioration in funding as measured in per capita terms reflects a combination of pressures including budgetary, demographic and institutional. Enrolment increased rapidly throughout the whole period 1970-2010. Even though the annual number of births declined, temporarily, between 1981 and 1994, the numbers entering Higher Education continued to climb year by year throughout the entire period. This was helped by a rising proportion of second level leavers entering Higher Education, rising numbers of 'mature' students and a slight shift towards longer average duration of studies. Unlike first and second level, funding in Higher Education is not automatically tied to teaching staff numbers. It is estimated that the ratio of students to teaching staff has increased significantly in Higher Education as the full impact of the employment control framework and various measures to reduce public sector numbers have taken effect.

The introduction of 'free fees' in 1995 signalled an important milestone.

The decision to introduce 'free fees' for undergraduate students in the mid-1990s was a significant milestone. Total public expenditure on Higher Educational institutions rose sharply from 69.7% in 1995 to 79.2% in 2000 and remained just above 80% for the next decade (OECD, 2013: 208). The rationale for this initiative was the simplification of state supports for Higher Education by the

replacement of certain tax relief covenants for education with a direct grant from the Department of Education through the Higher Education Authority (HEA) for designated full-time undergraduate courses and subject to certain conditions regarding course attendance[15]. It was also intended that the introduction of free fees for undergraduates would provide a strong incentive and support in cases where fees constituted a psychological barrier to entry to third level especially among lower-income groups or households falling just above the threshold of eligibility for student support. The decision to introduce 'free fees' has been the subject of some controversy over subsequent years with many claims advanced that it was a regressive and wasteful measure with little or no impact on entry to Higher Education by lower socio-economic groups.

Denny (2010) has used the School Leavers Survey to model probability of entering university over time. His research did not show find evidence for a significant impact of the introduction of 'free fees' on the socio-economic profile of entrants when other factors were accounted for. Similar findings were reported in McCoy and Smyth (2011).

Attention to early years of learning and initial education (primary and second level) is key to social equality

A key policy goal for Higher Education is the achievement of a more equitable distribution of entrants by social and economic background. Inequality in education is the outcome of unequal access to learning opportunities from an early age. Public policy interventions to support learning in the home and in the community as well as in public provision of care and education from an early age is important and is supported by a range of international evidence in relation to early intervention (Doyle, Harmon, Heckman, Logue and Moon). By the time children reach the beginning of primary level education their life chances have been heavily influenced in terms of access to learning resources and experience. This initial investment is built on later in the course of primary and second level. Unfortunately, many students drop out of school before completing a full second level qualification. Measures to promote greater social equality should focus attention on the early stages of the learning process when the opportunities to have an impact are greatest. However, in the case of those students who having completed a full second level education it is important to provide support for those who wish to pursue continuing education whether in the further education sector or in Higher Education. Within the constraints of on-going tight fiscal demands it is important to target financial assistance at those in greatest need and for whom there are significant financial barriers to Higher Education participation.

Supports are already in place for students who qualify under various income-related means tests. These supports may cover part or all of tuition fees, student charges as well as living costs (under the maintenance grant scheme). There have been some reductions and restrictions in relation to such support in recent years. Since 2012 maintenance grants for postgraduate students have been discontinued. To the extent that additional public funds become available in the coming years it will be important to give priority to the early years, primary education, second level education, further education and Higher Education. Investment at one level will assist outcomes and the quality of

[15] For example, students repeating a year – unless for approved medical reasons – are liable to payment of fees for the repeat year.

public investment at a later stage in the life-cycle. Attention must also be given to opportunities for continuing education and training throughout life. Often, individuals decide to return to full-time or part-time education in their course of their lives. This can have significant personal, social and economic benefits to the individuals participating. Higher Education institutions in Ireland need to adapt to 'get ahead of the curve' in terms of teaching, learning and research excellence.

And under-graduate tuition fees crept back over time for some ….

As policies evolved in the period 1995-2013 contributions by households were increased from a very low initial amount to a planned charge of €3,000 per student in 2015. Although not referred to as a tuition fee, the current undergraduate student charge is one, as it covers a very significant proportion of tuition costs in the case of those households that pay the charge[16]. In 2015, it will be set at a level which will probably return Higher Education to about the same level of private household funding as pertained up to 1995 (with households contributing just under one third of total average institutional tuition cost). The main difference is that costs vary considerably as between full-time and part-time but not at all as between different fields of undergraduate study such as applied before 1996. A study by McGuinness, Bergin, Kelly, McCoy, Smyth and Timoney (2010: 76) has drawn attention to the way in which a rising student charge has impacted on some households just above the eligibility thresholds for grant assistance:

> *As students from lower-income families have access to both maintenance and fee grants, it is likely that financial constraints arising from the policy change will be most heavily felt within households just above the grants threshold. Thus, relative to many other developed countries, a substantial proportion of students in Ireland now face a significant credit constraint that will, arguably, have consequences for HE participation if the situation is not addressed in the near future.*

Relief is granted to students who qualify on grounds of family income. In 2012/13 an estimated 47% of all full-time undergraduate students qualified for student support or reduced/no student charge (Table 5). Postgraduate students who meet certain qualifying conditions are eligible to have their tuition fees paid up to a maximum limit. Unless students who are in work receive financial support from their employers or unless they qualify under some existing special training programme access to part-time courses is at the cost of students. Students of migrant families may be particularly at a disadvantage depending on their citizenship status.

Table 5 **Undergraduate Grant Holders as % of all Full-time Undergraduate students**

	2009/10	2010/11	2011/12	2012/13
Total number of UG grant holders	50,075	54,789	61,623	66,524
Number of Full-time UG enrolments	133,849	139,092	141,226	142,718
No. of UG grant holders as % of full-time UG students	37%	39%	44%	47%

[16] The student charge has been referred to as an 'annual fee contribution' in guidance offered to Northern Ireland students.
http://www.studentfinanceni.co.uk/portal/page?_pageid=54,1266341&_dad=portal&_schema=PORTAL

Source: Department of Education and Science

The evolution in funding arrangements and public support to different categories of students has led to a complex and, at times, incoherent arrangement in relation to the funding of Higher Education. It may not be widely appreciated that over 50% of total funding for some universities is now originating in the private sector – households and other entities contribute over 50% of total university receipts in 2012. Strictly speaking, this pushes universities into the category of publicly sponsored and regulated bodies but relying for more than half for their income on private sources. Given recent trends and budgetary pressure on Higher Education and in the absence of a commitment to raising public spending on Higher Education a further erosion in the public source component of total receipts may be expected.

3.3 Future demand for Higher Education and resource implications

Continuing demographic pressure will strain existing resources

As population continues to rise and the natural birth cohort has been rising year by year since the mid-1990s there is likely to be continuing high demand for Higher Education places. The Department of Education and Skills (2013) envisages a growth of around 20% from 165,000 full-time students[17] in 2012 to just over 200,000 in 2025. This represents a significant pairing back in the growth of Higher Education over the coming decade compared to the outcome in the decade to 2012 when enrolments increased by just over 40% from a level of 116,000 in 2002 to over 165,000 in 2012. This magnitude of increase occurred even though the numbers completing second level were falling so that the natural intake cohort was getting smaller during this period. The intake of 'mature students' (those aged 23 or more at the time of entry) has increased very significantly over recent years. In 2012/1313% of entrants to full-time Higher Education courses were mature students (Higher Education Authority, 2013: 63).

..although growth has moderated since 2009 ….

A number of important underlying assumptions have been made by the Department in publishing its most recent projections including the following:

- No further increase in the proportion of mature students in the annual intake to full-time Higher Education courses;
- A modest increase in the number of students from outside the Republic of Ireland;
- A stable or slightly reduced rate of postgraduate intake;
- A constant rate of transfer from second level to Higher Education consistent with recent years' patterns (estimated at around 64% of the age-cohort in recent years)[18].

[17] DES aided institutions only.

[18] Department of Education and Skills (2013: 9)

….a renewed pattern of significant growth is possible exceeding the latest set of DES projections to 2030

It should be noted that provisional enrolment figures for 2012 indicate a levelling off in the intake of students. Clearly, economic factors have been relevant to both the surge in numbers in the decade to 2010 and the slowdown in growth over recent years. On this basis a downward revision in the projected numbers in 2012 at higher level seems warranted. However, it is far from certain that the recent downturn in enrolment and levelling off in rates of intake from the three main sources(school leavers, mature students and students from outside the State) will be maintained into the long-run given uncertainty about future economic forecasting. There is likely to be continuing additional demand from students wishing to pursue postgraduate studies or part-time studies (full- or part-time). Moreover, there is an imperative to raise, further, rates of participation by disadvantaged socio-economic groups as well as cater for the needs of up-skilling in the workforce. Births rose between 1995 and 2011 meaning that the natural population cohort attaining the age of 18 is likely to increase from 2013 until at least 2025.

Current projections are likely to fall towards the lower end of a spectrum of possible outcomes.

In summary, it is likely that the projected increase to just over 200,000 full-time students is a lower-bound estimate influenced by recent economic conditions. Moreover, it is not certain that the implicit throughput of graduates from Higher Education assumed in the most recent projections will be sufficient to raise the proportion of Higher Education graduates in the adult working age-population as was projected as a policy goal under the European Union 2020 indicators. As already stated, the tertiary attainment, in Ireland, of 30-34 year olds was the highest of any EU State at just over 51% in 2012 compared to the EU28 average of 36%. The rate, in Ireland, was double the figure in 2000 (25%). The 2020 target remains at 60% or higher for two EU States: Luxembourg and Ireland in 2020.

..while considerable uncertainty remains about future trends in the supply of graduates…

While it is difficult to foresee the future evolution of skills in the adult working age population it seems very likely that the level of tertiary educational attainment among those in the 25-64 age-group will continue to rise as more highly educated young entrants to the workforce replace less highly-educated persons who will retire in the coming years. However, care is needed in drawing any firm conclusions about future trends as a combination of net outward migration and a slower growth in Higher Education than was previously expected could signal a slow-down in the growth of Higher Education graduates in the adult working-age population. A reversal of recent trends cannot be ruled out if the bulk of emigrants were young Higher Education graduates as seems to be currently the case. Further exploration of recent data trends and possible future scenarios by the relevant public agencies would be helpful in addressing these questions.

Matching demand with resources will be challenging …

Recent data published by the Higher Education Authority indicates a pattern of falling staff numbers, rising student numbers together with reduced exchequer funding for Higher Education. As student-staff ratios increase across the sector greater productivity as measured by student throughput for a given staff outlay has increased considerably since 2007. Allied to this capital budgets have been

reduced and the total pay-bill in the sector has fallen due to cuts in public sector pay rates as well as reduction in overall staff numbers. To date, the Higher Education has dealt with these challenges without any evident deterioration in learning outcomes or graduation rates (however it may a number of years to fully assess these outcomes). It is far from clear that present standards and learning and skill outcomes can be sustained in the medium-term without a fundamental review of existing funding arrangements and allocations. On the basis of rising demand for places, current policy plans and continuing pressure on education budgets it is likely that real public expenditure per student will continue to fall for at least another 2 years.

A study of space utilisation in the Higher Education sector in 2010 showed that over 41% of the space was more than 25 years old, of which 18% was more than 50 years old. In the universities, almost 130,000 square metres of building space were over 100 years old. Net usable space per day per full-time equivalent student was 7.95 square metres which compares with 10 square metres internationally. Property requiring 'major repair' and 'replacement' representing in total around 39% of the portfolio is estimated to cost just over €1 billion and just under €270 million respectively to make the existing resources fit-for-purpose. This is particularly the case in science and engineering where a number of demands arise and where some courses may need to be stopped if facilities are not refurbished and in other cases where the facilities are not fit for purpose there may be an impact on the quality of learning outcomes. Compounding these difficulties is the prospect that future funding levels will not be adequate to provide for a continuous programme of equipment renewal and minor works.

Philanthropic donations have played a significant role in Higher Education since the 1990s. For example, library and other capital facilities have benefited from such donations. It is estimated that between 2005 and 2008 total private investment (including philanthropic) accounted for 50% of total capital investment[19].

[19] Source: HEA

A significant additional investment in Higher Education is required …

The 'Hunt Report' – the National Strategy for Higher Education to 2030 (Higher Education Authority, 2011: 111) – identified an increase of €500 million in funding over 2010 levels to the year 2020 just 'to maintain current levels of resource per-student'. The Report drew attention to a relatively low level of private or household contributions to Higher Education compared to the OECD average as well as the relatively limited revenue base for Higher Education from non-exchequer sources compared to many other OECD countries. However, a comparison with other countries in the OECD needs to acknowledge two separate features: (i) a marked difference in levels of income per capita across OECD member countries and (ii) significant divergences in the balance of public and private funding as noted in Chart 3 above. The Hunt Report has pointed to the limited nature of any student contribution and its role as supplementing that of the Exchequer:

> *The international evidence is that outside of private education systems, student contributions only ever represent a modest percentage of the underlying costs of delivering Higher Education. In Ireland, when tuition fees previously applied, this percentage ranged from approximately a quarter to a half of the underlying costs. Therefore, any system of individual contributions must be supplemental to the State's investment and not a substitute for it.*

The Report goes on to make a case for student or household contributions in principle in the following terms:

> *As well as pure budgetary logic, there are strong arguments in favour of individual contributions, including the expectation that the introduction of increased tuition fees will lead to a more responsive student oriented approach among educational institutions, greater variety and flexibility of provision, and improved quality of teaching and learning – all of which enrich the student experience.*

But this requires a shift in the level and composition of funding sources …

These latter conclusions are not however supported by clear empirical evidence. If it is accepted that total funding for Higher Education needs to be increased towards the level of some of the most successful economies and societies the following needs to be addressed:

- The balance of funding– public, private, corporate, household;
- The level of taxation deemed acceptable to fund public services and the ranking of Higher Education in terms of overall societal priorities; and
- The degree which, for any given cost outlay, greater efficiencies and economies can be achieved in the delivery of Higher Education.

In regards to the latter, it has not been possible to detail possible efficiencies or cost-savings in the area of Higher Education in this Paper. However, it may be assumed that scope, probably limited, is available to achieve economies. However, given the extent to which pay has been reduced, working hours increased, support services reduced or outsourced and other economies it is not apparent that significant further economies can be made without implications for research and teaching quality.

The current funding arrangement is not sustainable …

Considering the evidence from the demographic analysis, the level of resource funding and the OECD comparative graphs, there are grounds for concern that Irish Higher Education might be vulnerable to under-funding in key areas crucial to its international success and the country's economic development. The comparison of resource funding of Higher Education with other levels of education within Ireland illustrates a challenging budget for the sector. International comparison show that Ireland is only around the OECD average[20] and is significantly below the Nordic average. Moreover, it should also be borne in mind that the real value of spending per student is likely to have fallen in 2011, 2012 and 2013 given ongoing pressures on Higher Education budgets, rising student numbers and the modest impact of price inflation.

These trends must be viewed in conjunction with other pressures including the following:

- Projected further increases in student enrolment
- The continuing pressure on public finances as Ireland seeks to stabilise and reduce the ratio of public debt to GDP as well as the 'structural deficit'; and
- The pressure on the economy and institutions of Higher Education to compete on the world arena for workers, students, staff as well as high-quality research, university-industry collaboration and university spin –off companies. .

Higher Education in Ireland will not be able to sustain and improve its relative position internationally as well as meet the growing demand for Higher Education without a fundamental review of the current arrangements for funding.

3.4 The choices and options open to Governments in the rest of the OECD area

The mechanism for funding Higher Education is summarised by the OECD in Education at a Glance. It is possible to typify countries under three headings as follows:

A. Mainly state funded (most European countries)
B. Mixed with a rising proportion of private household contributions (Australia, UK and to a lesser extent Ireland)
C. Mainly privately funded (Japan and to some extent US 'ivy league' universities)

A mix of public and private funding sources exists across OECD countries...

Public funding for Higher Education takes place through a number of channels: direct financial grants to institutions of Higher Education for the purposes of tuition, direct subsidies to households to cover student living costs and household tuition fees payable to institutions and other expenditures. Tuition fees payable by households in publicly-funded institutions vary widely across countries. Fee levels may also vary within countries depending on the level and field of study involved.

Table 6, below, provides an overview of public tuition fee support in different OECD countries distinguishing countries by how well-developed their public student support system is. The Scandinavian countries show a preference for low tuition fees with a well-developed student

[20] The OECD includes a number of large and relatively low-income countries such as Turkey and Mexico.

support system (grants, services, financial support). This publicly funded Higher Education system is part of the social contract between government and citizens on funding for public goods, including Higher Education.

Similarly, continental European countries have relatively low tuition fees but tend to have a more limited student support back-up. This reflects a societal commitment to Higher Education as a publicly provided and funded good. However these latter countries face tighter budget constraints due to the lower levels of general taxation, compared to their Scandinavian counterparts.

Fees for Higher Education are common in the English-speaking world possibly because of the market economy tradition and but some of these countries have well-developed support systems. Tuition fees charged by public university institutions (classified by OECD as tertiary-type A institutions) exceed US$1,500 in all of these countries. Japan and Korea have high tuition fees (on average more than US$4, 500 in university-type institutions) coupled with limited student support systems.

Tuition fees vary by field of study in around one half of the 26 OECD countries for which information was available. Tuition fees for undergraduate and postgraduate fees tend to be similar in most countries (unlike Ireland).

The Organisation for Economic Cooperation and Development (2008) analysis of tertiary education suggests that countries with higher levels of participation in tertiary education, generally, fall into two models: : (i) those which utilise more of a mix of public and private resources and (ii) those which rely on high levels of taxation to support mostly publicly-funded tertiary education systems.

Table 6 Comparison of different Tuition Fee structures in Higher Education institutions across OECD countries

	Well-developed support systems	Less developed support systems
No/ low tuition fees	Denmark	Austria
	Finland	Belgium
	Sweden	Czech Republic
	Norway	France
	Iceland	Ireland
		Italy
		Poland
		Portugal
		Switzerland
		Spain
No/ low tuition fees	Denmark	Austria
	Finland	Belgium
	Sweden	Czech Republic
	Norway	France
	Iceland	Ireland
		Italy
		Poland
		Portugal
		Switzerland
		Spain
High tuition fees	Australia	Chile
	Canada	Japan
	Netherlands	Korea
	New Zealand	
	United Kingdom	
	United States	

Source: Universities UK, (2013), 'The funding challenge for universities', Universities UK, London,

Table 7, below, provides a limited comparative perspective on tuition fees. There is a significant difference in tuition fees between Nordic/Continental and Anglo-Saxon/Asiatic countries. In the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), and in Mexico, Poland, and Slovenia, public institutions do not charge tuition fees. In Austria, Belgium, France, Italy, Spain, Switzerland and Turkey, students pay small tuition fees for tertiary-type A education. Among the European Union countries for which data were available, only the Netherlands, the Slovak Republic and the United Kingdom have annual tuition fees that exceed US$1,500 (OECD, 2013). Tuition fees were higher than US$1,500 in one-third of the countries, and they reach more than US$5,000 in Chile, Japan, Korea and the United States.

Table 7 Estimated annual average tuition fees charged by tertiary-type A educational institutions (2011)

	Public institutions		Government dependent private institutions		Independent private institutions	
	1st degree programmes	2nd and further degree programmes	1st degree programmes	2nd and further degree programmes	1st degree programmes	2nd and further degree programmes
Ireland	6,450	7,036	.	.	.	.
Anglo model						
Australia	3,924	6,099	.	.	10,110	9,635
Canada	4,288	.	.	m	.	.
Chile	5,885	6,345	6,924	8757	6,230	8,357
Japan	5,019	5,106	.	.	8,039	7,423
Korea	5,395	.	.	.	9,383	.
Netherlands	1,966	.	.	.	.	.
New Zealand	3,645	.	.	.	.	.
Slovak Rep	Max 2,916	.	.	.	.	.
United Kingdom	.	.	4,980	7814	.	.
United States	5,402	.	.	.	17,163	.
Continental model						
Austria	860	860	860	860	< 11,735	< 11,735
Estonia	m	m	3,527	3786	5,322	6,699
France	200 to 1,402	273 to 1402	1,138 to 8,290	.	.	.
Italy	1,407	.	.	.	4,406	.
Mexico	No fees	No fees	.	.	5,684	.
Poland	.	.	.	.	1,242	1,335
Slovenia	.	.	.	.	11,040	12,144
Spain	1,129	.	.	.	.	.
Switzerland	863	863	863	863	.	.
Turkey	332	270	.	.	.	.
Scandinavian model						
Denmark	No fees	No fees	.	.	.	.
Finland	No fees	No fees	No fees	No fees	.	.
Norway	No fees	No fees	.	.	5,868	7,296
Sweden	No fees	No fees	No fees	No fees	.	.

Source: OECD (2013), adapted by the author.

Notes: Data presented in this table relate to national students (2011)[21] and are expressed in equivalent US dollars converted from national currencies using Purchasing Power Parities based on full-time students for the academic year 2010-11

[21] Tuition fees and associated proportions of students should be interpreted with caution as they result from the weighted average of the main tertiary-type A programmes and do not cover all educational institutions.

Chart 8 Proportion of expenditure on Higher Education institutions from household sources, 2010

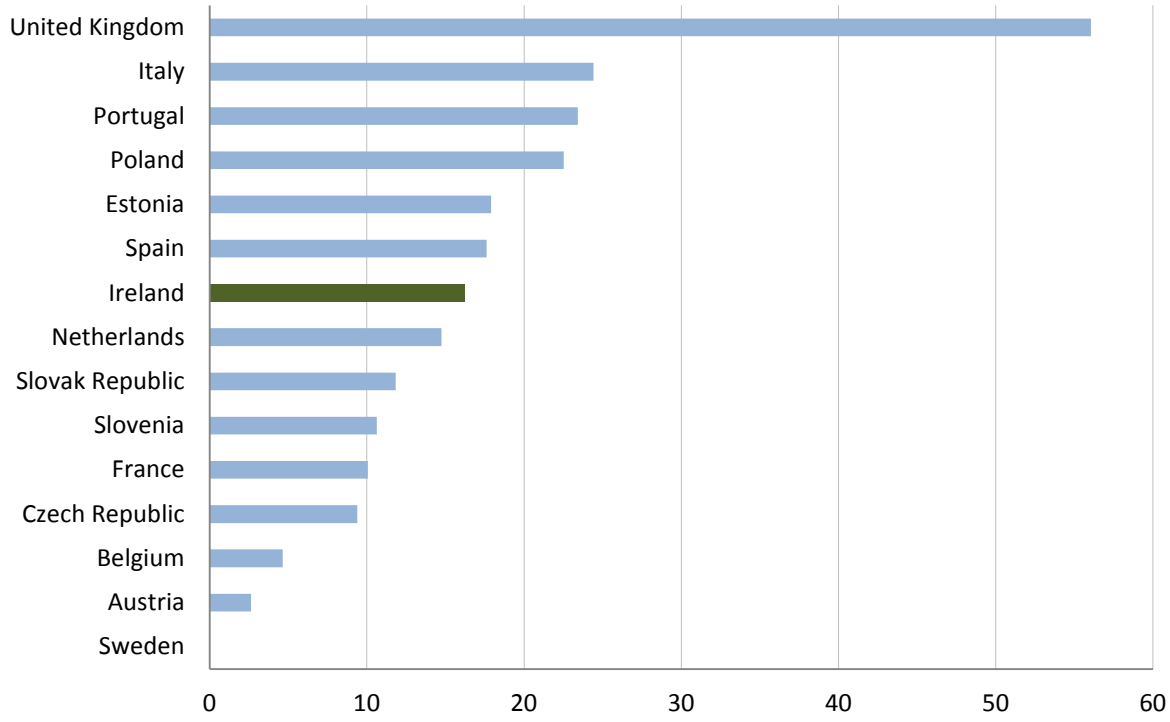


Table 9, below, shows the extent and different modes of public funding arrangements. In Ireland, 86.9 per cent of direct public expenditure for institutions compared with the OECD average of 78.3 percent. Whereas, OECD countries spend an average of about 22% of their public budgets for tertiary education on support to households and other private entities, Ireland only spends around 13%. Only eight countries spent less than Ireland (Czech Republic, France, Korea, Israel, Mexico, Poland, Spain and Switzerland)[22]Interestingly, countries that offer Income Contingent Loans (ICL) or 'student loans' are also those in which public support to households' accounts for the largest proportion of all public expenditure on tertiary education. From an Irish perspective, the key finding from the below table is the reliance on direct public expenditure for Higher Education institutions and limited support to households and private entities, diverging significantly from other OECD countries.

However, the figures reported can be considered as good proxies and show the difference among countries in tuition fees charged by main educational institutions and for the majority of students.

[22]However, in the Czech Republic, subsidies for students' grants are sent directly to institutions, which are responsible for distributing them among students.

Table 9 Public support for households and other private entities as a percentage of total public expenditure on education and GDP, for tertiary education (2010)

	Direct public expenditure for institutions	Public support for education to private entities					Public support for education to private entities as % GDP
		Financial aid to students				Total	
		Scholarships/ other grants to households	Student loans	Scholarships/ other grants to households attributable for educational institutions	Transfers and payments to other private entities		
Ireland	86.9	13.1	0	0	m	13.1	0.19
Anglo Model							
Australia	65.9	12.2	21.9	0.7	.	34.1	0.39
Canada	81.3	4.3	12.7	.	1.6	18.7	0.35
Japan	70.8	0.7	28.5	.	.	29.2	0.22
Korea	91.5	3.4	4.8	3.0	0.3	8.5	0.07
Netherlands	72.8	10.4	16.5	.	0.3	27.2	0.45
New Zealand	53.4	14.2	32.4	.	.	46.6	0.91
Slovak Republic	77.1	19.3	1.2	.	2.4	22.9	0.19
United Kingdom	32.3	0.3	33.5	.	33.9	67.7	0.69
United States	72.3	24.0	3.7	.	.	27.7	0.39
Continental							
Austria	81.8	11.0	.	.	7.2	18.2	0.30
Belgium	86.3	13.7	.	4.2	.	13.7	0.20
Chile	59.6	15.5	20.3	15.2	4.6	40.4	0.36
Czech Republic	97.4	2.6	.	.	.	2.6	0.02
Estonia	86.8	4.7	8.5	.	.	13.2	0.16
France	92.3	7.7	.	2.8	.	7.7	0.10
Hungary	85.7	14.3	.	.	.	14.3	0.14
Israel	89.5	10.1	0.4	9.7	.	10.5	0.11
Italy	77.5	22.4	N	10.3	.	22.5	0.19
Mexico	93.0	3.9	3.1	1.8	.	7.0	0.07
Poland	87.8	11.7	0.4	.	.	12.2	0.14
Portugal	83.4	16.6	.	.	.	16.6	0.19
Slovenia	76.6	23.4	.	.	.	23.4	0.32
Spain	90.6	9.2	0.3	2.0	.	9.4	0.11
Switzerland	93.4	2.0	.	.	4.6	6.6	0.09
Scandinavian							
Denmark	72.1	23.9	3.9	.	.	27.9	0.67
Finland	84.8	14.9	.	.	0.3	15.2	0.33
Iceland	69.0	.	31.0	.	.	31.0	0.51
Norway	62.5	10.7	26.8	.	.	37.5	0.98
Sweden	75.5	9.6	14.9	.	.	24.5	0.50
OECD average	**78.3**	**11.4**	**9.8**	**3.1**	**2.0**	**21.7**	**0.31**

Source: Indicator B5.4 from Education at a Glance (Organisation for Economic Cooperation and Development, 2013a: 236)

The remainder of this Section will outline three models of funding and fees in OECD countries: mainly state funded; mixed with rising proportion of private household contributions and mainly privately funded. The examination of each model focuses on the experience of a representative country in the case of each model: Finland for state-funded, England for a mixed contribution and USA for privately funded.

A State Funded Model

The state funded model, where investment in Higher Education institutions comes from public sources is the common arrangement in European continental and Nordic countries. This model is characterised by low or no tuition fees for students, however the level of investment in Higher Education and funding for student support system is different between the Nordic and continental countries. Denmark, Sweden, Norway, and Finland spend above the OECD average of 1.6% of GDP on tertiary education, and 90% or more of all expenditure on education institutions comes from public sources. All the European continental countries, with the exception of Estonia and the Netherlands, spend less than the OECD average of 1.6% of GDP on tertiary education (Organisation for Economic Cooperation and Development, 2013).

In the case of Finland, the public expenditure on tertiary education, both on institutions and subsidies to households, comprised 2.1% of Finland's GDP, the fourth highest level among the 28 OECD countries in 2002 (Organisation for Economic Cooperation and Development, 2009). Traditionally, there have been no tuition fees for Finnish students. Free access at the point of consumption may have been a key contributing factor behind the growth of their knowledge intensive industries as well as an important factor in the high levels of social equality in that country. In addition to tertiary education students not paying tuition fees, there are strong student financial aid systems. Students can receive public assistance to meet living or studying costs in the form of maintenance grants, study grant and a market-based government guaranteed study loan (Organisation for Economic Cooperation and Development, 2009).This approach has a number of possible advantages and disadvantages.

Table 10 Possible advantages and disadvantages of a mainly State-funded HE system

Possible advantages	Possible disadvantages
Higher Education institutions have access to a sustained revenue stream from the government and are able to make long-term decisions and are not overtly depend on cyclical market conditions.	This funding approach would consume a significant proportion of the government's overall education budget with possible implications for restriction in other areas under tight EU fiscal rules.
Students' access to Higher Education may not be as dependent on their socio-economic background. This widening of Higher Education participation would be a significant asset to economic development.	Could be socially unfair– taxpayers, including those from a low socio-economic background, are paying for Higher Education students who disproportionately come from high socio-economic backgrounds and who financially benefit the most from Higher Education
Free access could lead to participation in Higher Education, which in turn, results in a more highly-skilled labour force able to compete in the global market economy.	Could limit investment in research activities of Higher Education. For example, the OECD review of Finland's Higher Education (2009) estimates that converting grant-based assistance to loan assistance would free up about 8%-10% of public expenditure on tertiary spending
Low tuition fees frees up family income. As families play a smaller role in financing studies, this money could be spend on more productive goods in the economy.	The low tuition fees model based on higher taxes could be more difficult to implement with an ageing labour market and taxpayers population.

B Mixed-funded model

A mixed model entail greater proportions of private household contributions (Australia, UK and to a lesser extent Ireland). Given the high cost of higher education 'mixed-funding' systems have evolved towards a high fee regime coupled with grants and/or loans to students to enable them to incur the upfront costs. To this end, Income-Continent Loans were introduced in Sweden in the 1980s followed by Australia in 1989. Since then other countries have implemented such loans including the USA and UK. Chapman (2005) has reviewed the evidence with particular attention to the Higher Education Contribution Scheme (HECS) in Australia. Chapman (2005: 65) reported that the 'HECS did not seem to be associated with lower Higher Educational participation of relatively poor prospective students'.

Public authorities have a range of policy options to target assistance at households or individual students in need of support to undertake Higher Education. One option is the creation of a student loan system where students take out a loan to meet the upfront cost of tuition and living while studying. The loan can be repaid over an agreed number of years following graduation provided that graduates earn a certain minimum level of income over a period of time. Typically, public authorities under-write the loans and the cost of default or delayed payment. Model of income-contingent loan have been introduced in Australia and England, where the cost of Higher Education is paid after the graduate enters the labour market. However, the Organisation for Economic Cooperation and Development (2008) has identified the following difficulties:

- Difficulties in determining the extent of need of students (or families).
- Problems of recovering costs from graduates in the form of loan repayments.
- The need for a substantial initial investment to launch a loan system based on a public fund.

- The absence or limitations of private capital markets for student loans to complement the limited amounts of student lending available from public schemes.
- The absence of a sufficiently affluent middle class that can afford tuition fees

In addition, there could be difficulties with the cut-off point for grants and assistance loans for students from low socio-economic background. Students from upper-working class or lower middle class background could be disadvantaged if the cut-off point for financial support services is set too low.

A new funding arrangement for Higher Education in England has been put in place. All Higher Education institutions can charge £6,000 for full-time undergraduate courses per year. If institutions commit to spending additional resources on widening participation, they are able to charge up to £9,000 a year(Institute for Public Policy Research, 2013)[23]. Fees for international students in the U.K. usually cost between £10,000 and £30,000 per year, depending on the course and the subject they study. UK students' fees are usually paid by the national student loan scheme. UK students can borrow the money up-front from the government, and then pay it back over the course of several years after they graduate and have entered the labour market. Graduates repay their loans through the tax system, being charged 9 per cent of any income earned above £21,000 a year. There is a substantial outlay from the government at the beginning to start the loan system. The interest rate subsidy – the interest rate of the student loans is below the cost of the loans to the government. In addition, all outstanding payments after 30 years are written off. There is, also, a £3,250 subsidy from the National Scholarship Programme if parental income is less than £25,000 (Institute for Public Policy Research, 2013).

Would a Student Loans system work in the Republic of Ireland? At least a number of key difficulties arise in the case of any such proposal:

- There is no immediate saving to public expenditure as Government's upfront payment or loan guarantee/interest subsidy is recorded on the spending side of General Government.
- The prospects of recouping student loans through the Revenue Commissioners or other agency appear to be problematic especially where graduates emigrate to live and work in other jurisdictions. It may even be possible that the prospect of a significant student personal debt level with liabilities to repay over part of one's working life could act as a deterrent to graduates returning to Ireland should they emigrate soon after graduation.
- The costs of administering the scheme may be considerable.
- There is a risk of escalation in tuition fees to levels approaching that in some US or the UK institutions of Higher Education and this would act as a strong barrier to entry in the case of students who for one reason or another were not eligible for loans or who are risk averse to taking on large amounts of personal debt.

[23] It should be noted that the maximum tuition fee for Northern Ireland students studying in Northern Ireland in 2014/15 will be £3,685. Students can avail of a loan system to cover this cost. Tuition fee loans are not means-tested. In England, Scotland and Wales the maximum fee that can be charged for Northern Ireland students is £9,000. Northern Ireland students starting undergraduate courses in the Republic of Ireland in 2014/2015 are eligible to apply for a loan to cover the full cost of the student Contribution Charge there.

Analysis of the performance of the loan system in the United Kingdom so far has highlighted a number of negative features. Department for Business, Innovation and Skills has indicated that at least £40 in every £100 of loans lent to students will be written-off. The outstanding student loans on the Government's books is at present around £46 billion and this figure is set to rise to £200 billion by 2042 (in 2013 prices) (Source Public Accounts Committee - Forty-Fourth Report - Student Loan repayments[24]).

The introduction of fees and the lifting of the fees barrier hasnot achieved its stated aim of increasing price competition in Higher Education, because of “prestige race” rather than a price-based competition between universities. Universities feel they have to charge £9,000 in order to be seen as a top university.

A variation on student loans is the introduction of a gradate tax involving higher taxation rates on higher education graduates as a way of recouping the initial cost from future earnings of students. While this may be administratively simpler than an income-contingent loan arrangement, a graduate tax approach has the many of the drawbacks of a loan system including possible encouragement of emigration and discouragement of return migration. If two persons, each earning €150,000 per annum, one a graduate and the other not, are taxed at different rates the non-graduate is in effect receiving a tax relief for not undertaking higher education. A graduate tax is a deferred charge but it is also a form of incentive for not undertaking higher education.

[24]http://www.publications.parliament.uk/pa/cm201314/cmselect/cmpubacc/886/88602.htm

Table 11 Possible advantages and disadvantages of a Student Loan System

Possible advantages	Possible disadvantages
Significant increase in investment in Higher Education. In the UK - there was a 72 per cent increase in expenditure per student from 2000-2009, the highest in the OECD.	There is an incentive for universities to increase student number to maximise revenue from fees. This increase in student number might not be matched by increases in facilities, capital investments, student services, and could reduce the quality of the Higher Education experience.
The increased funds can be invested in maintenance grants and loans while widening participation. In the UK, there is a maintenance grant of £3,250 per annum if parental income is less than £25,000	The loan system could lead to the negative perception of access to Higher Education to disadvantaged groups. The system, which initially demands more funding from the government, could limit the availability of funds for supporting disadvantaged groups' participation in Higher Education.
Could improve teaching experience due to students demanding more given that they pay for the service and also enhanced competition between the institutions.	This funding approach could limit the number of applicants to Higher Education due to cost. Evidence in the case of England (Universities UK, 2013) shows a decline in applicants, including international, part-time and mature students.
It might increase places for students as a result of increased competition between institutions. In 2013, British universities accept close to half a million students.	If the government had financial loans issues, it could be forced to ration the number of student places available in the system, limiting access to Higher Education.
The loan system sees those who benefit from Higher Education contributing to its cost – and is arguably fairer.	There could be a continuous push for higher fees, particularly as the fees are compared to America fees and difference between the funding capacities of top English and American universities.
Tuition fees could act as market price signal rationing a limited number of Higher Education places in a way that reflects the demand, supply and cost for particular courses. Higher Education Institutions can adapt their provision of courses to compete with other providers and raise standards.	There is also a cost to the government, from the initial outlay of the student loan system, the high cost of loans and the inflationary impact of the fees. In addition, there could be a significant number of students who move overseas and avoid paying off the debt. A significant amount of overseas debt has remained unpaid in the case of the U.K.
Increased funds which can be invested in student-support systems and services, enhancing the quality of the Higher Education experience.	Students could select courses in countries, with no or small tuition fees, in Scandinavian and continental European countries, particularly if the course is in English.
Removes obstacles to participation as students are able to borrow money for Higher Education and only have to repay when they can afford to do so. This helps to remove the constraints on students from disadvantaged socio-economic backgrounds from participating in Higher Education (Institute for Public Policy Research, 2013).	There could be a negative effect on equality of access to postgraduate degrees. With mass participation in Higher Education, postgraduate degrees are becoming more popular in order to stand out in the labour market. However, there is a lack of state support for postgraduate degree and the cost of completing postgraduate degrees is significant.

C Mainly privately funded

Some view Higher Education as a commodity or a service which can be bought and sold with all the claimed benefits and efficiencies operating in any market for services. Where markets fail to provide a socially optimal intake of students policy measures could be taken to provide targeted assistance to students from socially disadvantaged backgrounds. In this way, it is argued, scarce public funds are best used to maximum effect to allow markets to operate in the field of Higher Education while, at the same time, providing targeted assistance to those in particular need of support. However, Higher Education becomes a private good which has significant consequences for the social contract between government, universities and citizens

The private funded model of Higher Education is mainly seen in Korea, Japan and in the non-public universities in America. This section will focus on funding in universities in America because of the high level of fees, there and the dramatic impact they have on student debt. US universities also tend to have funding streams that are far larger than their international counterparts. For example, Stanford University, has recently become the first Higher Education institution to raise more than $1-billion in a single year.

Universities fees are extensive, particularly for 'ivy-league' universities, with student taking out large loans in order to pay the fees. These loans come from private lenders or the federal government. Loans have a mortgage-style rather than income-contingent structure of lending. Typically loans must be repaid within the first ten years after leaving university. If payments are missed, penalties and fees can accumulate and result in rapidly rising loan balances. In some cases, loans are guaranteed against the students' families assets.

Table 13 Possible advantages and disadvantages of a mainly privately-funded System allied to student loans

Possible advantages	Possible disadvantages
Raises significant funds for universities and Higher Education institutions. This enables universities to develop world-class research in teaching and student services. This will improve student learning outcomes and develop the research capacity which will all contribute to economic development.	The level of student debt could be become very significant and could be an issue for economic stability and development. In America, student loans surpass $1.2 trillion in 2012 (Consumer Financial Protection Bureau, 2013), this represents a drag on the economy and could limit consumption and investment.
Students who benefit from Higher Education pay for the costs of Higher Education.	A study has found that 7 million of these student loans are in default. This could have a negative impact on financial providers and the borrowers who could have a negative credit rating and been prevent from accessing financial products and funds.
As most students take out mortgage-style loans, they can pay for them after graduating when they may have access to income. This can enable students with limited financial resources to participate in Higher Education	The interest rate of the loan is also not reduced by the American government. According to the Consumer Financial Protection Bureau, most students have a private loan with an interest rate of 8% or higher. This is a significant cost to Higher Education graduates[25].
The significant funding from tuition fees can be channelled into tuition relief support services and options for students from a disadvantaged socio-economic background.	The lower-middle-income students (between $40,000 - $60,000.) incurred more debt than students from families earning between $60,000 and $99,000 (Institute for College Access & Success, 2012). The student debt model could be particularly harmful for student from low socio-economic background.
	The fees could also have a negative impact on completion of Higher Education. One study found that Almost half of all college students and a much higher proportions of poor and minority students drop out before they complete a degree. Rising tuition costs was given as one of the key reasons (Sawhill, 2013).
	The perception of high fees could discourage entry to Higher Education or certain institutions. Research has found that a significant number of low-income, high-achieving students do not apply to elite universities but instead enter the community college system or other less selective institutions where they are less likely to graduate.
	The high fees could limit the subjects picked by students, particularly for the humanities. In one survey, 57% said they chose their major specifically because they thought it would lead to a higher-paying job.

[25] Similarly high interest rates have been proposed for loans to postgraduate students in Ireland.

	The high fees funding model could fuel an academic 'fees race'. Prestigious universities are charging high rates of tuition and investing high funds in research. This has resulted in more and more universities wanting to be perceive as a top-university and thus charging higher fees, which might not be based any significant change to the service to the students. One example of this is that public college tuition has jumped 33 percent nationwide since 2000. Furthermore, it could exacerbate the divide between elite universities and the rest of the Higher Education sector.

4 A Mainstream European approach to funding is preferable

This Paper has drawn attention to the contribution of Higher Education to future economic and social development as well as the challenging situation facing Higher Education Institutions in regards to funding. There will be continuing pressure on Higher Education given the expected increase in student demand arising both from demographic pressures as well as long-term shifts in demand for Higher Education. In the absence of a significant increase in funding for Higher Education – whether from public sources or private sources – it is difficult to see how the system as it is currently construed and operated can meet future additional demand as well as compete effectively in international markets for students, staff and research. The current level of funding for Higher Education could limit the country's capacity to compete with more intensive international competition in knowledge-orientated sectors and industries. Furthermore as Ireland's population ages in the coming decades, competition for public funds and services will increase and the taxable labour force could decrease. Difficult and demanding political choices are required and it is time for an open and evidence-based debate on the future of Higher Education, the options for funding it and its role in economic development. This debate cannot be conducted in isolation from other key debates that need to take place:

- What level of investment in Higher Education is deemed to be appropriate?
- To what extent are citizens prepared to pay additional taxes to fund public goods and services including Higher Education?
- What priority does Higher Education have vis-à-vis other areas of government spending?
- What balance of public and private funding in the overall budget is desirable and feasible?
- While level of direct contribution to the cost of education is appropriate for students?
- What level of subsidy or support for students in economic need should be considered?

The debate about universalism and means-testing is relevant

An answer to these questions must be shaped by a clearer set of social and political preferences in regards to the future or our society. If Ireland wishes to move closer to a mainstream European model of funding where Higher Education is viewed, socially, as a both a public and a private good but with the emphasis on public, then the current level of public funding needs to be reviewed. Taking account of the continuing pressures and competing demands on public funds some order of priority would be called for which involves a gradual progression towards a higher level of public funding together with a cap on charges for household in regards to participation in Higher Education.

As an alternative to public funding, student loans or a graduate tax have been suggested by some as a way of transferring the cost of Higher Education to recipients who should be in a position to repay the loans over a long period of gainful employment. The experience of other countries cautions against use of such an approach especially in the case of Ireland where graduate mobility coupled with uncertain economic conditions is likely to limit any long-term pay back. Moreover, as noted in this paper, a publicly-backed student loans scheme does not save the Government money in the short to medium-term.

The planned charge of €3,000 per student from 2015 could be capped.

Given the already high level of fees and charges levied on most households compared to European norms, there is an option for a cap on any further increases in student registration charges beyond 2015. In effect, these charges cover a significant amount of tuition cost as well as costs associated with registration. While future Governments have the option of increasing this charge (as well as renaming it to what it has already become – tuition fees) this is not viewed as a desirable policy goal given the uncertainty about its impact on levels of participation as well as the particular impacts on different social groups. Any proposal to increase charges – especially in the absence of appropriate counter-balancing measures to assist students or families in need – should be subject to rigorous testing on the likelihood of not causing further harm to social access to Higher Education and the economic development of the country.

What are the limits of 'universalism' in relation to prestigious HE courses?

Questions are legitimately raised about the extent to which the State should subsidise relatively high-income households or individuals in the provision of public goods and services. This is not confined to the area of education or Higher Education. Should relatively high-income households and individuals benefit from subsidised public health, universal child benefit in the case of families or universal packages for senior citizens? Some European countries have stepped back, more and more, from universal provision even though there remains a strong tradition of public funding and provision in Northern European countries including even the United Kingdom.

In the case of Higher Education it may be asked: why should public authorities subsidise high-income households to undertake much-sought after prestigious courses in medicine, dentistry or specialised engineering where the employment and earnings potential of graduates are typically very promising? According to this view, the case for pairing back on universalism seems appealing especially in the current economic climate and given the binding EU rules on public expenditure, government deficits and government debt that apply in perpetuity.

However, there is a wider perspective to consider in regards to this debate. Higher Education is a public good and service and is critical to the future economic development of the country, enabling the labour force to participate in the global knowledge economy. If it is accepted that this dimension dominates over its private good properties then the case for a balanced, sustainable and adequate level of public investment is strong. In the absence of this investment there is a risk that private sources – in particular corporate and philanthropic – will not be adequate to meet the needs of investment in knowledge, skills and learning especially where the commercial returns to private investors is low. Moreover, there is a risk that a policy of high direct costs including elevated tuition fees that reflect the estimated economic cost of providing courses could deter significant numbers of students from participating in Higher Education. Systems of student support have never been sufficient to cover all costs. Perception and other barriers to participation arising from very high fees should not be under-estimated.

A public goods perspective on Higher Education points to general taxation over other income sources.

There is, in our view, a strong argument for more investment in Higher Education and for more public investment funded through general taxation or other means of government revenue. There is scope for additional taxation in particular areas including high-income households, capital and corporate income. Another possible option is to fund part of Higher Education through a general social insurance fund which insures people in relation to lifelong learning, healthcare and continuity of income during periods of sickness, parental leave or retirement. Ireland's social insurance system remains severely under-developed and under-funded vis-à-vis long-term social needs. Paid for out of income from employment it is possible that, over time, employees and employers would pay a higher contribution rate than is currently the case moving Ireland closer to EU norms in regards to social insurance. However, the development of a robust, acceptable and enhanced social insurance model that incorporates lifelong learning would take time and would be complex to implement. In the short to medium term it is clear that if additional public funding is to be provided for Higher Education it would have to come general taxation.

Indicative projected costs of reversing recent student charges/tuition fees would be substantial

The 2011 Hunt Report (Higher Education Authority, 2011) estimated a possible additional spend of €500 million per annum up to the year 2020 based on relatively fast growth in student numbers and based on 2010 funding levels. Since 2010 there has been a sharp contraction in public spending on Higher Education as well as a significant increase in household contributions (with more in the pipeline). The latest data available from the HEA is over 3 years out of date. The HEA indicated an annual receipt of €460 million from tuition fees in 2010/11 and €180 in 'other income' in 2010/11 giving a total of €640 million. This figure may be significantly higher in 2014. If future Governments were to reverse all private charges and tuition fees including planned increases in 2014 and in 2015 then the extra bill for taxpayers is likely to be at least €800 million (student charges plus tuition fees at planned 2015 levels). Allowing for growth in student numbers over the next 15 years to 2030 the long-term additional funding could be in the order of €1.3 billion in current-day prices and at current levels of GDP. The future growth of GDP is uncertain. However, it is clear from these very tentative and illustrative numbers that public funding would need to be increased very significantly (possibly double its current level) just to meet additional student demand as well as reverse the impact of recent increases in student charges as well as create a level playing pitch between full-time and part-time, undergraduate and postgraduate courses. While further increases in GDP would yield additional income and revenue buoyancy it is certain that a fully publicly funded system would be costly and would require additional taxation. A gradual approach to raising expenditure on higher education would be necessary within overall fiscal parameters set by EU fiscal rules.

In summary, a fully publicly funded system would entail a very significant increase in tax revenue through a combination of favourable economic growth and revenue buoyancy streams and through higher rates of tax on one or more of the following sources: income (including social insurance), spending or capital assets.

One possibility is to retain the current level of spending as a percentage of GDP so that as GDP grows at a rate of 1-2% per annum in real terms real spending on education increases. The additional funding could be used to target households in need of public support while avoiding further increases in charges and fees payable by students.

Future Governments including the current one will be confronted by stark choices in relation to the funding of Higher Education:

– Raise additional public funding for Higher Education to avoid further increases in the student charge and to possibly reduce it over a period of years to as to lower the burden on households with students in full-time Higher Education.

Or

– Raise charges and convert these to tuition fees to reflect an explicit portion of the total cost of undertaking Higher Education.

Keeping to the current levels of funding is not a viable option[26]. Our preferred option and recommendation is for an increase in the level of public funding with a review of all areas of public support for education to create a more level playing pitch by level and mode of study (full-time and part-time). How much extra will depend on agreed levels of public spending and taxation.

[26] It may be suggested that a cap on student numbers should be considered. However, this would be likely to increase competition for places with adverse social consequences and would be likely to lower the supply of skilled graduates in the Irish labour market.

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