

The Scottish Further and Higher Education Funding Council Definitions of Funding

"This report was commissioned by the Scottish Further and Higher Education Funding Council (SFC), Scottish Government and Universities Scotland on behalf of the Tripartite Advisory Group (TAG) on higher education in Scotland."

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1 Executive Summary

Scott Moncrieff was appointed in February 2010 by the Tripartite Advisory Group (TAG) comprising the Scottish Further and Higher Education Council (SFC), Scottish Government and Universities Scotland to:

- enhance the understanding of the different definitions of funding;
- demonstrate how using different definitions produces different results in absolute and comparative terms; and
- provide TAG with recommendations on the range of measures of funding to be adopted

Higher education funding can be defined as the financial resources required to meet the costs involved in the efficient delivery of a desired standard of higher education. The level of public sector funding is therefore determined by a range of factors, both financial and non financial including:

- Stipulation of what the desired volume, range and standard of higher education should be
- Assessment of how this can be delivered in the most efficient and effective manner
- An evaluation of the costs arising from this delivery
- A political decision on how much of this financial resource requirement should be supplied by the public sector

Our key findings are summarised below:

- It is essential that the scope of the funding being examined is clearly understood including the level of influence that can be exercised over it
- There must be agreement and consistency in the sources of data used both in relation to the funding and any determinant parameters
- A distinction needs to be made between the "macro" level of total funding and the "micro" allocation of government funding. The "macro" level is the total funding required to deliver the desired, sustainable level of higher education including the relative proportion of this funding to be provided by the Scottish Government. The "micro" funding is the government funding allocated to Universities through formulaic means which are reflective of both policy priorities and a need to find a consistent method of allocating the "macro" total funds available.
- To allow effective national and international comparisons it is necessary to relate the funding "input" to desired outcomes achieved by the sector. The definition of appropriate outcome measures is outside the scope of this project but is subject to similar factors as those examined in this review of funding inputs.
- Subject to the above comment in respect of measuring outcomes, use of the OECD comparative indicators offer the best option in terms of national and international "macro" comparisons due to their clear and consistent definitions and data availability.

• A "micro" comparison with England is possible but requires a thorough understanding of both environments and methodologies being applied, and agreement on the treatment of a range of detailed parameters which are subject to regular change.

Based on the above findings our recommendations are as follows:

- Initial focus for TAG should be agreement on a detailed methodology for the calculation and presentation of "macro" funding indicators in line with OECD measures. While those within category B (Invested resources) are of particular interest, others within categories A (Outputs and Impacts) and D (Learning environment) may also be relevant. These measures provide a broad comparison of a nation"s investment in its education system.
- As illustrated through our example set out in section 7 using the OECD indicator B2.2 (Expenditure on educational institutions as a percentage of GDP, by level of education), there are a range of factors which need to be considered in developing this basket of measures including:
 - Clear and consistent definition of component measures. For example, we have presented eight different potential measures of Higher Education expenditure each of which are potentially valid approaches depending on the interpretation to be applied by the users of the measure.
 - Availability of appropriate data is a challenge particularly in relation to data which may not be readily available for Scotland alone. TAG need to agree a consistent set of sources.
 - International comparability. While the OECD, indicators provide the most appropriate comparisons there are limitations to the granularity to which comparisons can be made. Despite clear guidance from the OECD there remain differences in how data is compiled across most countries and therefore any comparisons should be made across a broad spectrum of a basket of the measures rather than any forensic examination of underlying data for individual countries or measures
 - All forms of indices have some limitations and therefore a consistent approach to the interpretation of any such data needs to also be considered
- To allow comparability with England, and to provide a more robust basis for allocating total funding to individual Universities, a revised model should be designed to allow for a more effective and efficient comparison of teaching grant allocation. This should reflect the emerging TRAC data and be expanded to cover both teaching and research.

We thank all those that have contributed to this project for their interest and cooperation.

2 Introduction

2.1 Background

The Tripartite Advisory Group (TAG) comprising the Scottish Further and Higher Education Council (SFC), Scottish Government and Universities Scotland recognised that the different treatment of public and private funding by Higher Education Institutions can lead to different results.

The objectives of this project were to:

- enhance the understanding of the different definitions of funding;
- demonstrate how using different definitions produces different results in absolute and comparative terms; and
- provide TAG with recommendations on the range of measures of funding to be adopted

2.2 Scope of the review

The scope of the work involved in this project included:

- Identification of the range of measures used by different bodies and for different purposes
- An analysis of the component parts of each measure and the differences in definition
- The development of principles and assumptions through a facilitated workshop
- An impact analysis based on the application of each of the different measures
- Consideration of any missing measures

The TAG technical group had already undertaken work in this area and provided the starting point of the required analysis.

2.3 Approach

Scott Moncrieff was appointed in February 2010 and met with the TAG technical group on 9 March to clarify the scope and approach for the project. Information was provided covering the following areas:

- Background to the TAG and the project;
- Details of analysis previously performed in this area;
- An analysis of the component parts of each measure and the differences in definition

In addition, we were provided with a list of individuals who were considered relevant to contact for their views on the funding definitions and measures available. A list of those contacted during the project is provided in Appendix A.

A facilitated workshop was held on 9 April 2010, attended by TAG representatives to review progress and to discuss issues identified during the review.

2.4 Limitation of responsibility

This report has been prepared by Scott-Moncrieff for use by SFC and TAG. The report is not intended for use by any party other than SFC and TAG, and therefore we accept no duty, responsibility or liability to any other parties.

This report is solely based on the information provided by SFC and TAG members and evidence gathered during our research and our interviews with individuals nominated by TAG. This information has not been subject to any form of audit or independent verification work.

2.5 Report structure

Our report is structured in the following sections:

- Section 3 provides high level definitions for funding and higher education
- Section 4 provides an overview of University funding in Scotland
- Section 5 describes the elements involved in the funding cycle
- Section 6 provides a comparison with University funding in England
- Section 7 summarises available international comparatives
- Section 8 sets out our key findings and recommendations

Detailed supporting information is provided in Appendices A to K.

3 Definitions

3.1 Introduction

Prior to exploring the available measures of higher education funding, and how they are defined, it is worth ensuring there is a common understanding of what is meant by the term "higher education funding".

3.2 Definition of Funding

Definitions of funding include:

- Financial resources provided to make a project possible "WordNet Search 3.0";
- Contributions whereby the funder provides support towards specific eligible costs of an approved project, up to a predetermined maximum amount "*www.pch.gc.ca*"; and
- "...grants, loans or other payments ... to the governing body of any fundable body in respect of expenditure incurred or to be incurred ... for ...the provision of ...fundable higher education ...or...the undertaking of research" *Further and Higher Education (Scotland) Act 2005*

Common aspects to most of the definitions of funding include the need for:

- Transparency in respect of the basis upon which the amount of funding is being provided (i.e. specific eligible costs)
- A relationship to the underlying cost base
- Use of credible and reliable sources of information
- Use of limited or constrained resources
- Sufficiency in terms of enough to make the defined project successful

Each of these aspects can be clearly related to the challenges relating to University Funding in Scotland.

3.3 Definition of Higher Education

Definitions of higher education include:

"...any course of education which: (a) is a course at a higher level in preparation for a higher diploma or certificate; (b) is a first degree course; (c) is a course for the education and training of teachers; (d) is a course of post-graduate studies (including a higher degree course); (e) is a course at a higher level in preparation for a qualification from a professional body; (f) is a course at a higher level not referred to in any of paragraphs (a) to (e); (g) provides instruction for persons who are participating in a course of education referred to in this subsection and who have support needs; or (h) is designed

predominantly to prepare a person for participation in any course of education referred to in this subsection..." – *Further and Higher Education (Scotland) Act 2005*

- "...the sector of education which encompasses post-school courses at HNC and HND levels and degree and post graduate course levels." *Scottish Government*
- "...Tertiary-type A programmes (ISCED 5A) are largely theory-based and are designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements, such as medicine, dentistry or architecture..... Tertiary-type B programmes (ISCED 5B) are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labour market, although some theoretical foundations may be covered in the respective programmes...ISCED level 6 (second stage of tertiary education) is reserved for tertiary programmes which lead to the award of an advanced research qualification. The programmes are therefore devoted to advanced study and original research and are not based on course-work only." *The International Standard Classification of Education (ISCED 97 5A & 5B Tertiary Education, Level 6 second stage of tertiary education*)

It is clear from these definitions that the scope of higher education varies significantly and therefore it is essential, particularly when seeking to make comparisons, that such differences are recognised.

It was agreed at the workshop held on 9 April 2010 that, for the purposes of this project, TAG's primary interest is in the funding to Universities that can be directly influenced by the Scottish Government. However, as will be seen from following sections, this focus does not always readily lend itself to international comparisons.

4 University Funding in Scotland

4.1 Overview

The parties involved in TAG are the Scottish Government, the Scottish Funding Council and Universities Scotland. These bodies represent the supply, delivery and demand for University funding as illustrated in the diagram below:



The different perspectives of the parties influence how funding and higher education are perceived and therefore need to be defined. These are summarised below:

	Perspective and influences			
Scottish Government	Seeking to identify the appropriate level of funding required to deliver a sustainable and internationally competitive higher education system.			
	Influences include:			
	• Economic conditions and overall public sector funding restraints			
	Reliable sources of cost information			
	 Government polices including education, social, economic, scientific and financial Political strategy 			
Scottish Funding Council	Responsible for ensuring funding is distributed in a consistent and equitable basis and in a manner which facilitates Scottish Government requirements of funded bodies.			
	Influences include:			
	Government policy and directives			

	 Consultation with stakeholders including funded bodies UK and international comparatives Reliable data sources on which to base allocations 				
Universities Scotland	Representative body for Scottish Universities seeking maximise the level of funding available to members to delive sustainable and internationally competitive teaching an research.				
	Influences include: University strategic plans				
	Cost pressures including wage demands				
	Availability of alternative funding sources				
	UK and international comparatives				

All of these perspectives are equally valid and need to be recognised in any discussions concerning University funding to ensure that all participants are clear on the elements of funding, and the factors involved with these elements, covered by the discussion. To understand the potential scope of funding elements, it is important to consider the whole funding landscape involved.

4.2 Funding landscape

The diagram below illustrates the range of funding sources, entities through which the funding may be channelled, and the final recipients of the funding:



A brief explanation of each funding type is provided below:

- The Teaching and Research Grants are provided by the Scottish Government to Scottish Universities through the Scottish Funding Council, who use a variety of primarily formulaic methods to distribute the funds to individual Universities.
- In addition to the above primary sources of funding, the Scottish Government also provide funding targeted at specific policy areas including the socially disadvantaged, disabled students and specific research areas
- Other grants include funds provided through other bodies including NHS teaching hospitals
- Tuition Fees are sums provided by Scottish Government through SAAS to Scottish Universities in respect of full-time Scottish and EU domiciled students. Part-time students and students from the rest of the UK pay their own fees (although some funding is available to pay part-time fees for less well-off students).
- Other sources of University funding include:
 - fees from international students set at a level wholly within the Universities control
 - research grants provided by UK research councils through open competition
 - funding provided by charities
 - commercial revenue including collaborative research and charges for use of University facilities including residences and catering operations
 - other income including endowment fund and investment income

The table below summarises the level and relative proportions of the above funding elements received by Scottish Universities during 2007/08:

	2007/08	% of total
	£M	
Teaching Grants	790	31.8%
Research Grants	239	9.6%
Other grants	134	5.4%
Tuition Fees	311	12.5%
International Student Fees	188	7.6%
Research Councils	177	7.1%
Charities	111	4.5%
Commercial Income	208	8.4%
Other income	324	13.0%
TOTAL	2,482	100%

Source: HESA

4.3 Options for defining University Funding

In considering University funding different definitions can be used including:

• Total funding received by Universities – all funding, from public and private sources. This measure demonstrates how total funds are used to cover all expenditure within the

sector and is useful for international comparison purposes. However, the Scottish Government does not have the authority to determine the funding available from other sources.

- **Total funding received by Scottish Universities from the UK public sector** funding from all parts of the UK public sector. As with the previous measure, this measure is useful for international comparison purposes but is not decided by the Scottish Government alone.
- **Total funding received by Scottish Universities from the Scottish public sector** funding from all parts of the Scottish Government. This includes funding allocated by the Scottish Funding Council, the Student Awards Agency Scotland and other bodies, such as NHS Education for Scotland. The Scottish Government is able to decide on the extent of all of this funding.
- **Total funding allocated by Scottish Funding Council** The total level of the funding to be allocated by the SFC is decided by the Scottish Government. It is also clear which portion of the funding is received by Universities. However, this is a very narrow definition of funding, which does not lend itself to comparisons with other countries.

Each of these definitions is relevant for different purposes. For example, the total funding received by Universities is important to understand the total resources available for the delivery of higher education being delivered by Universities. Similarly, the amount of this funding being provided by solely the Scottish public sector will be of relevance to the Scottish Government but of less relevance to the Scottish Funding Council who only has control over some of this funding.

In addition to recognising the impact that the scope of funding can have on discussions it is equally important to recognise the variability in the available sources of data.

4.4 Available sources of data

The source or type of data used can have a significant impact on the quantification of the funding measures. There are a number of factors that must be considered, including:

- whether the data is based on forward-looking estimates, or backward-looking actual figures;
- the time of year that the data was collected some funding is only announced part-way through a year;
- whether annual data spans an academic year or a financial year; and
- the way data is reported: for example student numbers can be based on headcount or full-time equivalents.

In addition, where funding measures are being used for comparative purposes, it is necessary to understand:

- what is included in the data in the comparator countries; and
- whether local data is equivalent.

All of these factors can influence the value put on funding, so it is necessary to ensure the source of the data is agreed, as well as the definition of the funding measure.

The impact these factors can have on comparative indicator measures is illustrated in Section 7.11.

On the basis that the scope of funding and issues relating to data sources have been clarified, the next stage in determining an appropriate funding definition is to determine where in the cycle of funding the discussions are being conducted.

5 Cycle of Funding

5.1 Introduction

All of the above leads to the conclusion that there will be no single answer to the question of how funding should be defined. Instead, it will depend on the purposes for which the definitions are required. These purposes are inter-related and illustrated in the following diagram:



5.2 Calculation of funding

Often based on historical data and comparisons with others, a primary focus for debate is in the determination or calculation of funding.

There are two aspects to this:

- i) **Overall funding available** the process used by the Scottish Government to decide how much funding should be allocated to higher education; and
- ii) Allocation of available funding the process used by transfer bodies (such as the Scottish Funding Council) to allocate the total funding available to individual institutions.

In both instances, the funding is calculated and allocated in advance, in order to cover costs as they are incurred. It is therefore necessary to use estimated data to complete calculations, which can be substantially reliant on a range of assumptions.

Overall funding available:

The Government's decision about how much of the total budget to allocate to the higher education sector is the start and end point of the cycle. In setting the budget available for higher education funding, the Government has to consider:

- What are the Government's objectives;
- What are their success criteria (what can they expect to get for their money);
- How are Universities expected to contribute to this success;
- How does this level of "return" compare with that expected from other parts of the education system and wider public sector;
- How well are the Universities performing to date; and
- How does their performance compare to other Universities in the UK and internationally; and
- How is Scotland performing compared to other countries?

The first three bullets points and the last one are about how the Government decides and delivers on its policies, both in terms of education policy and the wider government policies.

These policies will then define the factors influencing both the funding as a whole and the allocation of that funding to individual institutions. Some of the factors currently influencing funding decisions are:

- **Student numbers:** what proportion of the population should be educated to University level and how does that compare to the current situation?
- Subject mix: does the government want to encourage study in a particular field?
- Tuition fees: should the government fund individuals in higher education, at what level and should they make a contribution?
- Research: should the government provide funding to facilitate other research activities within Universities?
- Costs: to what extent should the funding provided by the public sector cover University costs and how much should Universities be expected to match activities to available resources?

Answers to these "macro" questions will be informed by the analysis of historical data through reporting and through effective comparison on a national and international basis.

Allocation of available funding:

The Scottish Funding Council (and other bodies such as the Student Awards Agency for Scotland) has to find a way to allocate the available funds in an equitable way between individual institutions, at the same time as ensuring that government policy objectives are met.

Currently, the SFC uses a mixture of formula-based and targeted allocation methods to divide the overall funding between individual institutions. The majority of funding is allocated on a formulaic basis through the teaching and research grants. The teaching grant is calculated using the following formula:

Number of student funded places x gross unit of resource - tuition fee

- The number of student funded places is largely historical, although institutions do have the power to move places between subjects and/or levels of study.
- The level of tuition fees are set by the Scottish Government.
- The gross unit of resource is determined by SFC, normally by applying an inflationary uplift to the previous year's figure. The source of this figure is understood to be based on the total amount of funding available for allocation, divided by the total number of students and is not currently linked to the actual costs of providing courses.

This calculation is undertaken for each of twelve subject categories, which are weighted to reflect relative estimated costs of providing the courses.

The research grant formula uses the outputs from the Research Assessment Exercise (RAE) that is undertaken across the UK periodically. The RAE analyses the research work undertaken by each institution using various indicators of quality and volume. The indicators are assigned weightings, as are the subject areas in which the research is undertaken. This is all combined to arrive at the funding each institution receives in respect of research.

Some grants, such as capital grants will also be allocated using a formula basis. Others, including the widening access grant, are targeted to specific institutions in order to best achieve the objectives of the grant.

All of these allocation methods are subject to change on a regular basis, as government policies change. Although it is important to understand how they work, in order to understand how they reflect policy, ultimately they are a means through which a pre-determined amount of available funding is allocated.

5.3 Reporting

Once the available funding has been allocated and distributed to Universities, with a number of relatively minor exceptions, the Universities will apply the funding based on their own internal budgeting processes.



Reporting of funding and its uses is focussed on past performance and covers both financial and non-financial measures. To allow fair comparisons it is important that all Universities use common reporting methodologies for all measures.

At a basic level, the funding is used to pay for the costs a University incurs in delivering its services. This is represented by the Cash In and Cash Out columns of the diagram above.

In order to determine whether the Universities" costs are paying for the "right" activities, we need to consider what the measurable outputs of those activities are, and how they link into the objectives that the funding supplier is trying to achieve (Outputs / outcomes column).

Possible denominators would include:

- Population
- Students
- Staff numbers
- Publications
- Qualifications awarded
- Public sector expenditure
- GDP

5.4 Comparison

In order to compare performance with that of others, either within the UK or internationally, it is necessary to understand the data available from the other parties. Simply considering the size of funding in isolation is inappropriate and therefore there is a need to relate the amount of funding to the delivery of relevant outcomes.

To be able to interpret, and potentially compensate for, differences arising from comparisons, it is also necessary to understand the policy context of the countries with which we are making comparisons.

The next two sections of this report examine the data currently available in England and internationally that can be used for comparative purposes.

6 Funding Measures – comparison with England

6.1 Overview

The channels used to allocate public sector funding to Universities in Scotland and England are broadly similar. They involve using a mixture of formula-based and targeted allocations for teaching, research and other areas of funding. Research, in particular, is funded via a dual support mechanism. The funding councils provide formulaic allocations based on research quality, which provide support for the research infrastructure. The research councils provide funding for specific programmes and projects. The diagram below illustrates the sources of income for universities:



Despite the similarities of the two funding systems, there are some clear differences between the systems, some arising from the different methodologies used to allocate funding and some linked to policy decisions made by the respective governments.

6.2 Constituent Parts of Funding

The funding received by Universities falls into five main categories, as defined by HESA:

- 1. **Funding body grants:** all grants allocated by funding bodies, including teaching, research and other grants, as well as the release of deferred capital grants.
- Tuition fees & education contracts: this category covers domestic tuition fees, fees from international students, fees for non-credit-bearing courses and other fees and support grants.
- 3. **Research grants & contracts:** these include grants from the Research Councils, charities, commercial companies and other government bodies. The detailed HESA analysis also categorises them as coming from UK, EU and non-EU sources.
- 4. **Other income:** other income from government bodies, residences & catering operations, intellectual property rights and any other income.

5. Endowments and other investment income.

The relative proportions of these categories of income are shown in the graph below:-



(Source: HESA, Resources of Higher Education Institutions 2007/08)

A more detailed analysis of income, using data from HESA's Resources of Higher Education Institutions 2007/08 publication, is attached at Appendix B.

From these analyses of income, we can make the following observations about how funding is influenced by different policies:

- Scottish Universities receive a larger proportion of funding through grant, rather than through funding from tuition fees as is the case in England. This reflects policy decisions to pass responsibility for funding to students in England but to keep the responsibility with the government in Scotland. Taken together, the two sources account for 63.1% and 61.6% of total funding in England and Scotland respectively.
- Within the tuition fees breakdown, Scotland receives a higher percentage of its funding from non-EU students. This is likely to reflect the lower fees for domestic students as well as any increased focus on obtaining international students.
- Funding for research grants and contracts is higher in percentage terms in Scotland than in England by 4.3%. Such funding is won on a competitive basis and this percentage differential reflects the relative success of Scotland in securing research funding from third parties. Such success may, in part, relate to SFC research funding policy.
- Looking at the research figures in more detail, Scotland receives more funding (as a percentage of total income) than England from most UK sources, except UK based charities through open competition. EU and non-EU funding is broadly similar. This reflects the Scottish emphasis on science and technology-based research, which is significantly more expensive, and therefore attracts higher funding, than, for example, social science based research.

It is therefore possible to start identifying the effects of policy decisions on funding, from a very high-level analysis of funding. However, this level of analysis does not give any insight about how the funding is being used, and whether one system is more effective or efficient than another in delivering the outcomes intended by those providing the funding.

This work has focussed on comparing those areas of funding that the Scottish Government has control over.

6.3 Existing funding measures

Currently, comparisons between Scottish and English funding for Universities are focused on the main Teaching and Research grants.

Teaching Grant:

As noted in the previous sections, in Scotland the teaching grant is allocated on the basis of a formula that uses student numbers, tuition fees and the gross unit of resource for each subject category.

In England, a similar methodology is used. It also calculates a funding value, based on estimated student numbers, expected tuition fees and a subject price band. However, the English methodology also considers the funding that an institution would receive if the previous year"s funding was increased for inflation. If this is within 5% of the calculated value, the inflationary increase is awarded on the previous year"s funding.

Other differences between the two approaches are:

- **Subject categories** HEFCE has 4 subject price bands, which are weighted to reflect the relative costs of the courses within them. Currently the SFC has 12 subject categories, which are also weighted. The SFC subject price categories are under review.
- **Gross unit of resource / subject price banding** the "price" attached to each subject category (SFC) or subject price band (HEFCE) is not directly comparable. It is simply the method by which total funding is allocated. If the total funding to be allocated through the main grant is lower because of a policy decision to allocate a larger proportion of the available funding through targeted grants, the "price" of the course will also be lower, regardless of the cost of delivering the course.
- **Tuition fees** the approach to Home/EU full-time undergraduate tuition fees is a major area of policy difference between Scotland and England. Within Scotland, the full-time undergraduate tuition fees for Scottish and EU students are wholly paid through public funding (students from the rest of the UK pay the fee directly) while in England it is paid directly by students (although it is a deferred fee).
- **Extent of targeted funding** although the majority of teaching funding is awarded through the formula-based main teaching grant in both countries, the extent of targeted funding varies between Scotland and England.

It is possible to complete a very detailed comparison between the Scottish and English methodologies and to arrive at a weighted percentage difference between the funding per student. This exercise was completed by Universities Scotland in 2001 and, using their methodology, we repeated the exercise with 2007/08 data. However, we found that the methodology requires expert knowledge of both the SFC and HEFCE funding systems and it includes making several adjustments to data to get to a comparable figure.

In addition, because of the variables discussed above, at present, the funding measure calculated using this process lacks transparency and, as a result, credibility for all parties. If this methodology was to be used in future, it would be necessary for the TAG sub-group to agree on a standard approach for each of the variables listed above. It would also need to be subject to a detailed review each year to ensure it is still appropriate. We do not consider that this is a practical methodology for comparison and so we have excluded it from further consideration.

Unit Funding Comparison

An alternative approach would be to develop a unit cost comparison, based on the gross unit of resource. However, there are a number of methodological differences between the way SFC and HEFCE calculate and distribute their funding which we need to account for before we make the comparison to ensure, as much as possible, that we are comparing like for like. The three methodological differences that we must account for are:

1. Disparity between funding councils of the number of teaching price groups

Because SFC has more price groups than HEFCE it can be difficult to make this comparison, so we have calculated average units of resource for SFC across the subjects in this price group (although since SFC price groups sometimes map to more than one HEFCE price group, this is only approximate). We can do this by calculating the notional amount of SFC funding that would map to each HEFCE price group and then dividing it by the number of students to give a price per student.

2. Disparity between the way both funding councils measure student numbers

We can create these averages in two ways using two different measures of student numbers. The first is by using funded student places. Funded student places are the volume measure that SFC uses to allocate its main teaching grant and a means of controlling the amount of grant that is paid. Funded student places are not the same as the number of students (called students eligible for funding). Since there are generally fewer funded student places than students, this makes the funding per student look higher than it actually is. The second measure of student numbers we can use is the number of students eligible for funding. This is more similar to the HEFCE figure since HEFCE do not use funded student places (only students eligible for funding).

3. Whether the funding per student is gross of the tuition fee element.

The SFC funding per student is gross, i.e., it includes both SFC funding and a tuition fee element. However, this is not the case in England where the fee assumption is only \pounds 1,225 for full-time undergraduates, whereas institutions can charge up to \pounds 3,070 for full-time undergraduates (but must all provide bursaries). We have therefore provided another figure which estimates the funding available in England for full-time undergraduates in each price bands including variable fees, but net of bursaries (we have assumed bursaries account for an average of 25% of additional fee income).

Price band		HEFCE	2007-08		SFC 2007-	08
		Unit of Resource	UoR plus variable fee	Unit of resource (averaged across funded student places and across levels of study)	UoR SEFF (as previous column, except using students eligible for funding)	UoR SEFF and fees- only fees (as per previous column but using additional estimated fees)
А	Clinical	£15,332	£16,663	£15,377	£14,014	£14,272
В	Lab-based	£6,516	£7,696	£7,942	£7,454	£7,577
С	Significant practical element	£4,983	£6,094	£6,773	£5,946	£6,201
D	Other	£3,833	£4,933	£4,530	£4,290	£4,414

For full details of the approach used for the calculations in the table above, see Appendix C. The table above shows that, unit costs in Scotland are higher than in England for the majority of courses, except Clinical and Veterinary Practice

It has the advantage of comparing the prices for each subject, making it easier to identify the effects of policy decisions on the importance of particular fields of study. The SFC is working to develop a new, reduced set of subject price bands, which may link more closely with the HEFCE bandings. Once this work is completed, it may be possible to develop the unit cost comparison further.

We found that this approach still requires consideration of many of the variables in the table above, in particular the identification of all other sources of teaching grant and their apportionment across the subject categories. This is a complex and subjective process, as well as being one that would regularly be subject to change. Therefore, this measure is likely to face the same issues in respect of clarity, transparency and credibility that we have outlined above for the methodology used to compare the teaching grants.

Research Grant:

The main Research Grant is allocated using the output of the Research Assessment Exercise (RAE). In both Scotland and England, individual institutions submit data about the volume of research undertaken and the quality of that research. The output from the assessment process is weighted, to generate the level of funding for each institution.

A key difference to the processes used in Scotland and England are the weightings allocated for quality and volume outputs. These weightings can be use to direct the funding towards particular fields of research or particular types of institution. The weightings used in 2007/08 are included in Appendix D.

The factors to consider in deciding on the weightings include:

 In which subject fields do we want to develop expertise? This influences the weighting applied to different fields of study. Also, science & technology research is far more expensive than other types of research. We therefore need to factor the amount of total funding available for research when deciding on the weighting, to ensure an equitable approach.

This question will also influence the overall funding available for research: if the focus is to be on science or technology based research, the overall funding requirement in order to cover costs will be higher.

- How should research be delivered within Universities? Greater weighting placed on high quality research outputs will encourage, fewer, bigger research centres, as Universities that already have a good reputation will receive more funding than those striving to develop such a reputation. Conversely, more even weighting across the quality categories will encourage research across a wider base of Universities.
- How do we measure the cost of infrastructure? This grant aims to fund research infrastructure, to facilitate the delivery other research. The Transparent Approach to Costing (TRAC) has been developed in order to help Universities identify the full economic costs of research. It is recognised that the TRAC data may over-estimate the overheads attached to undertaking research at present. However, the scheme has recently been extended to cover teaching as well as research which will allow reconciliation to total expenditure reported in University annual accounts.

There is currently no agreed process for comparing research funding in Scotland with that in England, other than by comparing research funding as a percentage of total funding.

Other Grants:

There are a wide variety of other grants allocated by both SFC and HEFCE. These include capital grants, grants targeted for specific purposes, grants that are awarded on a formula basis and grants awarded on a competitive basis.

The nature of these grants results in them being excluded from the main grants in order to directly fund particular policy objectives (for example widening access). In reviewing the types of grant allocated, we can identify some of the key policy aims that SFC and HEFCE fund:

HEFCE	SFC
Other Grants – teaching	Other Grants – teach
Mainstream additional funded places Non-mainstream funded places (2) Widening participation (1) Other recurrent teaching grants (3)	Part-time incentive premium Widening Access retention premium Disabled students premium Small specialist institution supplementary grant
Other Grants – Research	Other Grants - Research
Research Capability Fund	Research Development foundation grant Research Postgraduate grant Knowledge Transfer grant
Other Grants	Other Grants
Moderation of teaching and research Additional funding for very high cost and vulnerable science subjects Special funding (4)	Libraries Access Fund Museums, Galleries and Collections Grant FE / HE Articulation grant Learning and Teaching Infrastructure Funds

Sources:

HEFCE annual grant letter 2007/08 SFC annual grant letter 2007/08

Further detail is included at Appendix E.

6.4 Alternative funding measures

The funding measures described above are extremely detailed, in order to identify and eliminate the differences in funding created by differences in policy decisions and allocation methods between Scotland and England.

This is possible when Scotland is being compared with England, due to the close relationship between the two funding bodies. However, this is not a realistic approach to use for wider, international comparisons. The complexity of the adjustments made in order to account for the differences between Scotland and England also create a lack of transparency that leaves the comparative figures open to challenge.

We have therefore produced a series of indices, which set out total funding over several years for both Scotland and England. There are 3 indices, two of which are calculated with and without student support funding.

The total funding figures are not directly comparable between Scotland and England, given the different size of the sector in each country. However, each index shows how the funding has changed over the years, which can provide useful comparative data when interpreted against the known differences between the two funding systems. To show real terms growth over time indices have also been included that show the findings adjusted to constant prices.

Index 1: Funding Council Allocations

Index 1 uses the grant funding notified to HEIs in the annual grant allocation letters from SFC and HEFCE for the academic years 2003-04 to 2010-11. We found that, due to the period of time covered by the index, the presentation of funding announcements changes over the period.

The most consistent sources of data we found were the tables attached to the annual grant letters. We have therefore used these tables in producing the index. However, although the tables refer to "total budget", "total resource" and "total grant", the nature of the funding cycle, which results in additional funding being released throughout the year in both Scotland and England, means that it is unlikely the figures contained in these grant letters are the total funds allocated to universities each year.

Appendix C shows the allocation figures for each year, and lists the individual grant letter reference numbers.

Index 1a is based on "Total budget for the academic year" from SFC main grant circulars and assumed fee income from Table A2 of the same grant circular for SFC figures. The HEFCE figures are based on "Total Resource" from HEFCE Table 1, which includes regulated fee income.

Index 1b is based on "Total budget for the academic year" from SFC main grant circulars for SFC figures. The HEFCE figures are based on "Total Grant" from HEFCE Table 1, which excludes regulated fee income.

For both indices, the HEFCE figures exclude allocations to FE Colleges. The real terms changes in the indices were calculated using the HM Treasury GDP deflators.

	Index 1			
	1	a	1	b
Year	SFC	HEFCE	SFC	HEFCE
2003-04	100.0	100.0	100.0	100.0
2004-05	107.1	108.9	106.9	109.6
2005-06	110.2	114.3	110.2	115.3
2006-07	130.8	121.8	131.7	123.0
2007-08	140.5	128.5	141.0	130.0
2008-09	144.7	134.9	144.2	136.5
2009-10	n/a	n/a	149.1	145.3
2010-11	n/a	n/a	147.8	134.2

n/a: data not available

For data sources, see Appendix F.

	Index 1 – real term growth			
	1	а	1	b
Year	SFC	HEFCE	SFC	HEFCE
2003-04	100.0	100.0	100.0	100.0
2004-05	104.2	106.0	104.0	106.7
2005-06	105.3	109.3	105.3	110.2
2006-07	120.9	112.6	121.8	113.7
2007-08	126.3	115.5	126.8	116.9
2008-09	126.6	118.0	126.1	119.4
2009-10	n/a	n/a	128.2	125.0
2010-11	n/a	n/a	123.6	112.2

n/a: data not available

For data sources, see Appendix F.

Notes:

- 1) HEFCE Regulated Fee data was not available for 2009/10 and 2010/11.
- 2) There is only a marginal difference in the rate of increase in the funding levels when comparing indices 1a and 1b for either country, suggesting that the impact of regulated or assumed fee income is marginal.

Index 2: Total University Funding

This index has been produced using HESA Finance data tables. The total income figures were taken from Table 5 for each of the academic years shown below. Further details are included in Appendix F.

	Index 2			
Academic Year	Scotland	England		
2003-04	100.0	100.0		
2004-05	106.2	106.7		
2005-06	113.2	116.0		
2006-07	123.8	126.6		
2007-08	136.1	139.7		
2008-09	146.0	151.1		
2009-10	n/a	n/a		
2010-11	n/a	n/a		

Source: HESA data tables

	Index 2- real terms growth			
Academic Year	Scotland	England		
2003-04	100.0	100.0		
2004-05	103.3	103.8		
2005-06	108.2	110.9		
2006-07	114.5	117.1		
2007-08	122.3	125.5		
2008-09	127.7	132.2		
2009-10	n/a	n/a		
2010-11	n/a	n/a		

n/a: data not available

Source: HESA data tables, HM Treasury GDP Deflators

The percentage increase in this index is greater for both Scotland and England to 2009 than that in the Allocations index, suggesting that other income represents an increasing proportion of funding for Universities in both countries. This increase is more pronounced for England than Scotland.

Index 3: Government Spend on Higher Education

- 3a Including student support funding
- 3b: Excluding student support funding

	Index 3			
Financial	3	а	3	b
Year	Scotland	England	Scotland	England
2003-04	100.0	100.0	100.0	100.0
2004-05	106.1	100.7	106.8	105.0
2005-06	110.9	113.0	115.7	117.0
2006-07	119.1	125.7	130.5	121.5
2007-08	124.8	149.8	138.2	127.5
2008-09	123.0	160.5	141.7	133.8
2009-10	128.0	172.2	149.4	140.1
2010-11	131.2	175.7	147.3	136.1

Source: Scottish Government budgets; DIUS Annual report 2009. For further details, see Appendix F.

	Index 3 – real terms growth			
Financial	3	a	3	b
Year	Scotland	England	Scotland	England
2003-04	100.0	100.0	100.0	100.0
2004-05	103.3	98.0	103.9	102.2
2005-06	106.0	108.0	110.5	111.8
2006-07	110.1	116.2	120.6	112.3
2007-08	112.2	134.7	124.2	114.6
2008-09	107.6	140.4	123.9	117.0
2009-10	110.1	148.2	128.6	120.5
2010-11	109.7	146.9	123.1	113.8

Source: Scottish Government budgets; DIUS Annual report 2009; HM Treasury Deflators

Notes:

- The DIUS Annual Report 2008/09 was used to provide the data for England. For the years 2003/04 to 2007/08, the figures are outturn figures. For 2008/09, they are provisional outturn and for 2009/10 and 2010/11, they are budget. The Scottish figures are all budget figures.
- In England the rate of increase in funding is slower when student support is excluded from the calculation. This reflects the English policy decision to replace government funding with student fees.
- 3) In Scotland however, the rate of increase in funding is slower when student support funding is included in the calculation. This is due to the student loans bank interest subsidy included within Student Awards Agency Scotland (SAAS) budget figures: there is no annual inflationary increase for this and it reduces sharply from 2008/09.
- 4) The DIUS report used to identify the English government spend has separate categories for Higher Education and Further Education and Skills. While it is not possible to say for

	Index 1			Index 2		Index 3				
	1a		1b				3a		3b	
Year	SFC	HEFCE	SFC	HEFCE	Scotland	England	Scotland	England	Scotland	England
2003-04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2004-05	107.10	108.9	106.9	109.6	106.2	106.7	106.1	100.7	106.8	105.0
2005-06	110.2	114.3	110.2	115.3	113.2	116.0	110.9	113.0	115.7	117.0
2006-07	130.8	121.8	131.7	123.0	123.8	126.6	119.1	125.7	130.5	121.5
2007-08	140.5	128.5	141.0	130.0	136.1	139.7	124.8	149.8	138.2	127.5
2008-09	144.7	134.9	144.2	136.5	146.0	151.1	123.0	160.5	141.7	133.8

certain, because the report doesn't explain what goes into each category, this suggests that the Higher Education figures will not include monies allocate by HEFCE to FE Colleges.

	Index 1 – real terms growth				Index 2 – real terms		Index 3 – real terms growth			
	1a		1b		growth		3a		3b	
Year	SFC	HEFCE	SFC	HEFCE	Scotland	England	Scotland	England	Scotland	England
2003-04	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2004-05	104.2	106.0	104.0	106.7	103.3	103.8	103.3	98.0	103.9	102.2
2005-06	105.3	109.3	105.3	110.2	108.2	110.9	106.0	108.0	110.5	111.8
2006-07	120.9	112.6	121.8	113.7	114.5	117.1	110.1	116.2	120.6	112.3
2007-08	126.3	115.5	126.8	116.9	122 23	125.5	112.2	134 7	124.2	114.6
2008-09	126.6	118.0	126.1	119.4	127.7	132.2	107.6	140.4	123.9	117.0

Reviewing all of the indices together shows that, in Scotland, each index (except 3a, discussed above) shows similar rates of increase in funding. However, the English indices increasing the most are those for total income (2) and government expenditure, including student support (3a). This suggests that the introduction of tuition fees has resulted in a shift towards other sources of income for English universities, including fees from students and other sources of income.

The indices above facilitate comparison between Scotland and England. They also promote an approach to comparison that involves producing high-level data that must be interpreted by developing an understanding of the funding systems operating in the two countries. This approach can also be used when making international comparisons.

7 Funding Measures – international comparison

7.1 Overview

Ensuring Scotland"s Universities are internationally competitive is one of the key reasons for providing government funding to the University sector. It is therefore important to ensure that the comparisons made with other countries are fair and reasonable. This section of the report considers the international data currently available and highlights the factors that must be taken into account when using that data to assess Scotland"s performance.

7.2 Sources of international data

There are a number of organisations that publish international statistics about education and, in particular, funding for higher (or tertiary) education. These include:

- The World Bank;
- The European Commission"s Eurostat service;
- United Nations Educational Scientific and Cultural Organisation (Unesco); and
- The Organisation for Economic Cooperation and Development (OECD).

World Bank – the data available are focused on the World Bank's activities and on low income nations. They are therefore not suitable for the purposes of this report.

Eurostat – the data are for European countries only, which are also included in the larger data sets used by both OECD and Unesco.

Unesco – this is the largest data set in terms of the number of countries included. However, it includes developing nations, which face very different challenges to deliver tertiary education. Understanding and allowing for these factors would take time and we can avoid that by using the narrower set of countries included within the OECD data set.

OECD - the OECD produces an annual publication "Education at a Glance", which sets out a comprehensive set of measures concerning education within the member states. There are 30 member countries of the OECD and 10 partner countries and a list of these countries is attached at Appendix G.

All except three of the top 100 Universities listed in the QS World University Rankings 2009 (as referenced by the Sunday Times Top Universities Guide) are in OECD countries (or partner countries). The exceptions are three Universities in Singapore and Taiwan.

The OECD is therefore an appropriate single source of data in respect of education. It uses many of the definitions used by Unesco and is internationally respected as a relatively robust

source of data. This data has therefore been the focus of our work on international comparative data.

7.3 OECD methodology

"Education at a Glance" summarises and analyses the data provided by member countries. The data is collected using the Unesco / OECD / Eurostat (UOE) return, using internationally agreed definitions and standards.

A key definition is that of higher education. Within the publication, the OECD refers to three types of tertiary education: tertiary-type A, tertiary-type B and advance research qualifications, as defined in the International Standard Classification of Education (ISCED). The ISCED definitions, which are set out in Appendix H, can be summarised as follows:

Tertiary-type A education (ISCED 5A): The programmes are largely theory-based and have a minimum duration of three years full-time equivalent. They are broadly equivalent to University qualifications such as the Bachelor and Master degrees, or post-graduate degrees such as the Postgraduate Certificate in Education.

Tertiary-type B education (ISCED 5B): These programmes are typically shorter than those of tertiary-type A, with a minimum duration of two years full-time equivalent. In the UK, these qualifications are typically (although not exclusively) those delivered through further education colleges (e.g. Higher National Certificate, Higher National Diploma, Diploma of Higher Education).

Advanced Research Qualifications (ISCED 6): This category refers to tertiary programmes that lead directly to the award of an advanced research qualification such as a Ph.D. They typically run for at least three years and are devoted to advanced study and original research.

While there is no overall definition of funding; the UOE return has detailed guidance about the data to be included in each category within the return. The OECD provides clear definitions of terms such as funding, student, GDP, public expenditure, private expenditure, teachers etc., which all countries should be using.

However, it is still necessary to interpret the results cautiously as there are other factors that influence the data and therefore their comparability including:

- Data quality;
- Sources of data;
- Government policy;
- Cultural differences between countries.

Data Quality – within Scotland and the UK, it is possible to understand the systems used to collect the required data, and the limitations of those systems. This is not the case with data from other countries, and where data is missing or unavailable, this can influence the apparent result. The OECD works around this by using a clear system to indicate why data is not

included in tables, which aids the interpretation of the remaining figures.

Sources of data - even within the UK, different data sources are used at the UK level and the Scottish level in order to obtain the information required by the UOE return. This can lead to data quality issues, due to factors such as the timing of data collection.

Government policy – the government within each country will have different priorities that will affect the funding available to higher education institutions. These include:

- The extent of public funding going directly to Universities;
- The extent of public funding awarded to students;
- The emphasis put on research funding and the associated impact on teaching funding;
- The extent to which research and development is University-led within a particular country;
- The extent to which students are responsible for funding their education themselves;
- The priority of higher education compared to the rest of the education sector and other areas of the economy receiving public funding.

Cultural differences – the issues here are similar to those outlined in the previous paragraph concerning government policy. However, it is harder to identify and measure their impact on the provision of higher education, other than as part of understanding the influences driving government policy. For example:

- What is the value placed on higher education?
- Do students tend to stay at home while studying (thus incurring lower living expenses)?
- How long do University courses last?
- What is the extent of life-long learning, both in terms of percentage of the population studying and for how long?

7.4 Existing OECD measures

"Education at a Glance" reports the indicators collected in four chapters:

- A. The Output of Educational Institutions and the Impact of Learning
- B. Financial and Human Resources Invested in Education
- C. Access to Education, Participation and Progression
- D. The Learning Environment and Organisation of Schools

Within each of the four chapters there are a number of indicators, each of which is supported by a series of tables. Taken together, the tables build up a picture of education activities within each country, which address the overall question posed by the indicator.

A full list of the indicators and tables included within the OECD publication is attached at Appendix I.

7.5 Using international comparators

In considering the use of international comparators TAG need to address the following key questions:

- Which measures are the most appropriate for comparing with Scotland and for what purpose?
- What are the most appropriate sources of data for calculating the measures?
- What are the most appropriate data elements to be used in the detailed calculations?
- What is the best method of calculating the measures using the above data elements?
- How should the resulting measures be used?

7.6 Choosing the most appropriate measures

In principle, all of the OECD measures could be considered appropriate for use in comparing Scotland with the rest of the world. However, in considering HEI funding those contained within Chapter B of the OECD "Education at a Glance" report are likely to be considered most appropriate.

7.7 Sources of Data

Both the UK and Scottish Governments have completed data returns based on the guidance provided by OECD.

The UK version of the return uses the following sources of information:

- Treasury"s Public Expenditure Statistical Analyses (PESA) table 5.2R
- National Statistics Gross domestic expenditure on research and development
- HESA Resources of HEIs
- Estimated expenditure on education by households using a student survey
- Student Loans Corporation Gross expenditure on loans advances

The UK document identifies that there are issues with some of the data sources. For example, the PESA table contains some lines of data that are not allocated to either primary, secondary or tertiary sectors, requiring apportionment of these lines using student or staff numbers.

The UK figures also use more than one source to calculate some of the required data. For example, research and development figures are calculated using a combination of data from the National Statistics SFR and HESA. Using a combination of sources increases the risk that the reported expenditure is either over or under-stated but is a pragmatic approach where no single source of data is available. Similarly, data in respect of private household expenditure is based partly on results derived from a student survey.

Some of the data recorded above is only collected at the UK level and so it is not possible to use exactly the same sources of data to complete the Scottish return. The sources used to complete the Scottish return are:

- HESA Resources of HEIs
- Student Awards Agency for Scotland
- Scottish Government"s Lifelong Learning statistics
- Scottish Funding Council FE Colleges funding and student numbers data
- Student Expenditure and Debt survey

The majority of the HEI related data is taken from the first three sources above.

7.8 Data elements

Having identified the most appropriate sources of data there remain challenges in ensuring that the data from these sources is appropriate and consistent. These challenges can include:

Timing – Some data is available for calendar years while others will be based on financial years or academic years

Averaging – some data is subject to a variety of averaging methodologies to reduce the impact of exceptional peaks or troughs

Actuals or estimates – depending on the timing of the data it may be based on confirmed actual results or be provided as best estimates

Perspective – Depending on the perspective of the source of the data and the purposes for which the data has been originally generated can create significant differences.

Mode of study – The treatment of part-time and full-time modes of study can have a significant impact on the presentation of data

To illustrate some of these issues, the table below shows student numbers being reported for 2007-08 by the Scottish Universities through HESA and the Scottish Funding Council. The number of students used by the SFC is a mechanism through which funding is allocated rather than a measure of the expected number of students being educated.

Source	Description	Student Number
Scottish Funding Council – Main Teaching Grant	Students Eligible for funding	137,187
HESA Table 0	Total HE Students	210,180
	Of which:	
	Part-time students	60,575
	Non EU Students	21,500
7.9 Calculation methods

As with the selection of the individual data elements, how these are combined within the measure calculations can provide significant variations in the output. This is illustrated by a comment contained within the 2008 OECD publication in respect of the UK results in respect of expenditure per student which indicated a significant increase "due to methodological changes and improvements in the reporting accuracy for enrolment and finance numbers".

This is further illustrated in the example calculation provided in section 7.11.

7.10 Use of the measures

Once the measures have been calculated on a transparent and consistent basis they can be used in two primary ways:

Trend analysis – to monitor changes in the measure over a period of time.

International comparison – to provide an indication of international competitiveness.

To ensure valid conclusions are drawn from the results it is critical that there is a clear understanding of what the measures are intended to indicate and, in terms of the international comparison, there is a clear understanding of the issues highlighted in 7.3 above.

7.11 Example - OECD Indicator B2.2

B2.2 provides an indicator of the level of expenditure committed by a nation on their educational institutions as a percentage of GDP. Use of this measure should provide TAG with an indication of how Scotland"s financial commitment to Higher Education compares with international competitors.

The key elements of this calculation are:

- Expenditure on Higher Education; and
- Gross Domestic Product

However, within each of these two elements there are a range of options as follows:

Expenditure on Higher Education

Public spending only

- A Scottish Public Sector Expenditure including Student Grants and Loans
- B Scottish Public Sector Expenditure excluding Student Grants and Loans
- C Scottish and UK Public Sector expenditure including Student Grants and Loans and UK Research Grants

D Scottish and UK Public Sector expenditure excluding Student Grants and Loans but including UK Research Grants

Measure D may be considered comparable to other countries as it excludes spending on student loans but includes UK research grants.

Public and private spending

- E Public and Private expenditure including Student Grants and Loans but excluding expenditure not directly related to education (e.g. residences)
- F Public and Private expenditure excluding Student Grants and Loans and expenditure not directly related to education (e.g. residences)
- G University Income which excludes Student Grants and Loans but including other sources of income including residences and endowment income
- H University Income which excludes Student Grants and Loans and other sources of income including residences and endowment income

All of the above measures of Higher Education expenditure are valid and their appropriateness is dependent on how the value is to be used and its comparability with similar measures being used by international comparators. Appendix J sets out the individual data elements contained within each of the above for the year 2005-06.

Measures F or H may be considered the most appropriate as they exclude both spending on student grants and loans (which are not directly received by institutions) and other income, which may not be comparable internationally.

Gross Domestic Product

GDP is not readily available for Scotland as a region, therefore an alternative, Gross Value Added (GVA) is often used as a proxy for GDP. However, as with education expenditure there are a number of options to consider:

- GVA values contained within the OECD returns which are provisional and "headline" figures meaning the results have been smoothed using a 5 period moving average. The smoothing is intended to remove any volatility caused by sampling and non sampling errors in original data.
- GVA values published by the Office of National Statistics (ONS) within the NUTS1 Bulletin. The values contained within the 2009 edition were revised due to a revision of the National Accounts Blue Book resulting in changes from previously published data.
- 3. GVA based on ONS Regional estimates these are "raw" rather than "smoothed" figures.

- 4. The Scottish Government published estimates of Scottish GDP in the Scottish Economics Statistics 2008 paper. This uses the ONS GVA values to which Scotland's share of VAT and other product taxes were added. This estimate is based on the calendar year.
- 5. A further estimate of Scotland's GDP using the above approach but based on the financial year.

Given the comparisons being attempted, the latter two estimates are likely to provide a better approximation of Scotland's GDP than the simpler GVA measure. Below, we have used the fifth estimate because it is based on the financial year, which will be closer to the academic year than the calendar year.

Indicator B2.2 Calculation

The range of figures outlined in the table below indicate the challenge of calculating comparable figures without direct engagement in the OECD process and the UK government. As such, it must be acknowledged that the validity of any of these figures are seriously compromised in attempting to assess comparability with OECD members.

		GDP/GVA Estimate Values					
		1	2	3	4	5	
Expen	diture	91,024	93,465	91,311	103,606	105,270	
Α	1,177,338	1.29	1.26	1.29	1.14	1.12	
В	960,762	1.06	1.03	1.05	0.93	0.91	
С	1,483,311	1.63	1.59	1.62	1.43	1.41	
D	1,266,735	1.39	1.36	1.39	1.22	1.20	
Е	1,962,361	2.16	2.10	2.15	1.89	1.86	
F	1,745,785	1.92	1.87	1.91	1.69	1.66	
G	2,112,523	2.32	2.26	2.31	2.04	2.01	
н	1,897,621	2.08	2.03	2.08	1.83	1.80	

Combining the above provides the following results:

As can be seen in the subsequent OECD table, these calculations extend over almost the full range of country expenditure on Tertiary type A education. This fact seriously undermines the credibility of these figures as a tool for meaningful comparison. Even those two estimates regarded as best representing comparable figures (F and D) exhibit a significant variance between one another, somewhat undermining utility for comparative purposes.

The table below shows the OECD data on spend on tertiary education (where data is available) as a percentage of GDP.

0700	Notes	All tertiary education	Tertiary-type B education	Tertiary-type A education and advanced research programmes
OECD countries				
United States		2.9	4.0	
Canada	3	2.7	1.0	1.7
Korea		2.5	0.5	2.0
Finland		1.7		1.7
Denmark		1.7		
Australia		1.6	0.1	1.5
Sweden		1.6		
New Zealand		1.5	0.2	1.2
Japan		1.5	0.3	1.2
Netherlands		1.5		1.5
Switzerland	4	1.4		1.4
Portugal		1.4		
Poland		1.3		1.3
France		1.3	0.3	1.1
Austria		1.3	0.1	1.2
Belgium		1.3		
United Kingdom		1.3		
Norway	4	1.2		
Czech Republic		1.2		1.2
Ireland		1.2		
Mexico		1.1		
Iceland		1.1		
Hungary		1.1		1.1
Spain		1.1		
Germany		1.1	0.1	1.0
Slovak Republic		1.0		1.0
Italy		0.9	n	0.9
Turkey	4	0.8		
OECD average		1.4	0.2	1.3
OECD total		1.9	0.2	1.2
EU19 average		1.3	0.0	1.2
Partner countries				
Brazil	4	0.8		
Chile	5	1.7	0.4	1.3
Estonia		1.1	0.3	0.8
Israel		1.8	0.4	1.5
Russian Federation	4	0.8	0.2	0.7
Slovenia		1.3		

1. Including international sources.

3. Year of reference 2005.

4. Public expenditure only (for Switzerland, in tertiary education only).

5. Year of reference 2007.

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2009).

The published OECD comparatives do not contain a separate measure for the UK as there is no distinction made between Tertiary Type A (HEI) and Type B (FE College) education. However, the combined value is 1.3.

Only 16 of the 30 OECD members provide comparative data for Tertiary Type A and advanced research programmes with an average value of 1.3.

If only Public Sector expenditure is being considered then Scotland would appear to be below the OECD average. However, if private funding is also included then it would appear that Scotland as a nation is spending a higher proportion of its resources on Higher Education.

To ensure that all countries are using comparable data, or to clarify the exact data source, for individual country OECD Returns, would require working with OECD directly which is outside the scope of this project.

The table below shows the public and private spend on tertiary type A education in OECD countries (where available) as a percentage of GDP for 2006 (indicator B2.2). Scotland can be put in this table as shown, using either estimate D (public sources only) or F (public and private).

	Notes	Tertiary-type A education and advanced research programmes
Korea		2.0
Canada	3	1.7
Finland		1.7
Scotland (F)		1.7
Australia		1.5
Netherlands		1.5
Switzerland	4	1.4
Poland		1.3
New Zealand		1.2
Austria		1.2
Japan		1.2
Czech Republic		1.2
Scotland (D)		1.2
Hungary		1.1
France		1.1
Germany		1.0
Slovak Republic		1.0
Italy		0.9
OECD average		1.3
OECD total		1.2
EU19 average		1.2
Partner		
Chilo	5	1 2
Estopia	5	1.0
		0.0
Russian		1.5
Federation	4	0.7

7.12 Summary

Making international comparisons is complex and will require considerable cooperation if TAG is to agree a set of measures which are to be used now and into the future. We believe the OECD published measures offer the most appropriate set of available measures and in this section we have set out the key steps which TAG would need to work through, including agreeing the most appropriate measures, data sources, data sets and methods of calculation. Once calculated the interpretation of the results requires a clear understanding of the circumstances of the comparative countries and any key changes in underlying data.

8 Findings and recommendations

8.1 Key findings

Higher education funding can be defined as the financial resources required to meet the costs involved in the efficient delivery of a desired standard of higher education. The level of public sector funding is therefore determined by a range of factors, both financial and non financial including:

- Stipulation of what the desired volume, range and standard of higher education should be
- Assessment of how this can be delivered in the most efficient and effective manner
- An evaluation of the costs arising from this delivery
- A political decision on how much of this financial resource requirement should be supplied by the public sector

Our key findings are summarised below:

- It is essential that the scope of the funding being examined is clearly understood including the level of influence that can be exercised over it
- There must be agreement and consistency in the sources of data used both in relation to the funding and any determinant parameters
- A distinction needs to be made between the "macro" level of total funding and the "micro" allocation of government funding. The "macro" level is the total funding required to deliver the desired level of sustainable higher education including the relative proportion of this funding to be provided by the Scottish Government. The "micro" funding is the government funding allocated to Universities through formulaic means which are reflective of both policy priorities and a need to find a consistent method of allocating the "macro" total funds available.
- To allow effective national and international comparisons it is necessary to relate the funding "input" to desired outcomes achieved by the sector. The definition of appropriate outcome measures is outside the scope of this project but is subject to similar factors as those examined in this review of funding inputs.
- Subject to the above comment in respect of measuring outcomes, use of the OECD based statistics offer the best option in terms of national and international "macro" comparisons due to their clear and consistent definitions and data availability.
- A "micro" comparison with England is possible but requires a thorough understanding of both environments and methodologies being applied, and agreement on the treatment of a range of detailed parameters which are subject to regular change.

8.2 Recommendations

Based on the above findings our recommendations are as follows:

- Initial focus for TAG should be agreement on a detailed methodology for the calculation and presentation of "macro" funding indicators in line with OECD measures. While those within category B (Invested resources) are of particular interest, others within categories A (Outputs and Impacts) and D (Learning environment) may also be relevant. These measures provide a broad comparison of a nation"s investment in its education system.
- As illustrated through our example set out in section 7 using the OECD indicator B2.2 (Expenditure on educational institutions as a percentage of GDP, by level of education), there are a range of factors which need to be considered in developing this basket of measures including:
 - Clear and consistent definition of component measures. For example, we have presented eight different potential measures of Higher Education expenditure; each of which are potentially valid approaches depending on the interpretation to be applied by the users of the measure.
 - Availability of appropriate data is a challenge particularly in relation to data which may not be readily available for Scotland alone. TAG need to agree a consistent set of sources.
 - International comparability. While the OECD indicators provide the most appropriate comparisons, there are limitations to the granularity to which comparisons can be made. Despite clear guidance from the OECD there remain differences in how data is compiled across most countries and, therefore, any comparisons should be made across a broad spectrum of a basket of the measures rather than any forensic examination of underlying data for individual countries or measures
 - All forms of indices have some limitations and therefore a consistent approach to the interpretation of any such data needs to also be considered
- To allow comparability with England, and to provide a more robust basis for allocating total funding to individual Universities, a revised model should be designed to allow for a more effective and efficient comparison of teaching grant allocation. This should reflect the emerging TRAC data and be expanded to cover both teaching and research.

APPENDIX A – List of Contacts

Riona Bell	Scottish Funding Council
John Duffy	Scottish Funding Council
Loretta Naylor	Scottish Funding Council
Audrey Macdougall	Scottish Government
John Ireland	Scottish Government
Neil Swanson	Scottish Government
Robin McAlpine	Universities Scotland
Kirsty Skidmore	Universities Scotland
Phil McNaull	Heriot Watt University
Kim Swales	University of Strathclyde

APPENDIX B – Detailed income analysis

	England £'000	%	As a % of section total	Scotland £'000	%	As a % of section total
	(1)	(2)	(3)	(4)	(5)	(6)
Funding body grants	6,861,061	35.4	100.0	1,029,482	41.5	100.0
Recurrent grants (Teaching)	4,522,996	23.3	65.9	667,262	26.9	64.8
Recurrent grants (Research)	1,410,154	7.3	20.6	239,156	9.6	23.2
Recurrent grants (other)	526,349	2.7	1.1	96,580	3.9	9.4
Release of deferred capital grants	300,415	1.5	4.4	26,484	1.1	2.6
FE provision	101,147	0.5	1.5	0	0.0	0.0
Tuition Fees & Education Contracts	5,374,265	27.7	100.0	498,388	20.1	100.0
Home & EU Domicile						
FT undergrad	2,415,259	12.4	44.9	177,126	7.1	35.5
FT postgrad	458,112	2.4	8.5	43,823	1.8	8.8
PT undergrad	235,630	1.2	4.4	11,895	0.5	2.4
PT postgrad	235,025	1.2	4.4	22,951	0.9	4.6
Non-EU domicile	1,619,689	8.3	30.1	187,573	7.6	37.6
Non-credit-bearing courses	292,414	1.5	5.4	30,652	1.2	6.2
Other fees & support grants	118,136	0.6	2.2	24,368	1.0	4.9
Research grants & contracts	3,011,248	15.5	100.0	492,445	19.8	100.0
DIUS Research Councils	1,119,386	5.8	37.2	176,951	7.1	35.9
UK based charities (open competition)	612.642	3.2	20.3	70,749	2.9	14.4
UK based charities (other)	78,898	0.4	2.6	38,369	1.5	7.8
UK central gov't / LA / health & hospital autho	486,109	2.5	16.1	79,856	3.2	16.2
UK industry, commerce & public corps	221,455	1.1	7.4	60,531	2.4	12.3
EU gov't bodies	220,826	1.1	7.3	35,027	1.4	7.1
EU-based charities (open competition)	5,026	0.0	0.2	403	0.0	0.1
EU industry, commerce & public corps	24,596	0.1	0.8	1,732	0.1	0.4
EU other	13,014	0.1	0.4	2,349	0.1	0.5
Non-EU-based charities (open competition)	56,428	0.3	1.9	1,773	0.1	0.4
non-EU industry, commerce & public corps	70,492	0.4	2.3	10,146	0.4	2.1
non-EU other	64,564	0.3	2.1	5,666	0.2	1.2
Other sources	37,812	0.2	1.3	8,893	0.4	1.8
Other income - other services rendered	1.231.880	6.3	100.0	112,766	4.5	100.0
UK central gov't / I A / health & hospital	359.856	1.9	29.2	54.008	2.2	47.9
authorities. EU gov't bodies	000,000			01,000		
Other	872,024	4.5	70.8	58,758	2.4	52.1
Other income - other	2 500 434	12 0	100.0	201 /20	11 7	100.0
Pesidences & catering ons	1 103 088	57	100.0	135 015	5.5	100.0
Grante from Las	8 683	0.0		155,915	0.0	40.0
Income from HA (exc teaching contracts)	277 601	1.4	11 1	23 430	0.0	8.0
Release of deferred capital grants	85 042	0.4	3.4	15 007	0.9	5.5
income from IPR	31 520	0.4	13	3 005	0.0	5.5 1 4
Other operating income	903 600	5.1	30.7	112 074	4.5	38.5
	333,000	5.1	53.1	112,074	4.5	50.5
Endowment & investment income	421,303	2.2	100.0	57,439	2.3	100.0
TOTAL	19,400,191	100		2,481,940	100	

Source: HESA Table 1 -Income of UK HE institutions by source & location of institution 2007/08

APPENDIX C – Gross unit of resource comparison

We can compare the SFC price groups with the HEFCE price groups. However, there are a number of methodological differences between the way SFC and HEFCE calculate and distribute their funding which we need to account for before we make the comparison to ensure, as much as possible, that we are comparing like for like. The three methodological differences that we must account for are:

- 1. Disparity between funding councils of the number of teaching price groups
- 2. Disparity between the way both funding councils measure student numbers
- 3. Whether the funding per student is gross of the tuition fee element.
- Because SFC has more price groups than HEFCE it can be difficult to make this comparison, so we have calculated average units of resource for SFC across the subjects in this price group (although since SFC price groups sometimes map to more than one HEFCE price group, this is only approximate). We can do this by calculating the notional amount of SFC funding that would map to each HEFCE price group and then dividing it by the number of students to give a price per student (table C1).
- 2. We can create these averages in two ways using two different measures of student numbers. The first is by using funded student places (Table C2). Funded student places are the volume measure that SFC uses to allocate its main teaching grant and a means of controlling the amount of grant that is paid. Funded student places are not the same as the number of students (called students eligible for funding). Since there are generally fewer funded student places than students, this makes the funding per student look higher than it actually is.

The second measure of student numbers we can use is the number of students eligible for funding (Table C2). This is more similar to the HEFCE figure since HEFCE do not use funded student places (only students eligible for funding).

3. The SFC funding per student is gross, i.e., it includes both SFC funding and a tuition fee element. However, this is not the case in England where the fee assumption is only £1225 for full-time undergraduates, whereas institutions can charge top-up fees for full-time undergraduates (but must all provide bursaries). We have, therefore, provided another figure which estimates the funding available in England for full-time undergraduates in each price bands including variable fees, but net of bursaries, using data from the Office for Fair Access. Note that bursaries may influence students" choices. The process of allocating the tuition fees and additional grants is shown in the tables below

Table C1 - Gross unit of resource comparise

HEFCE price band	SFC subjects	UG UoR (Table A1)	FSPs (all)	SEFF (all)	FSP	SEFF	WUoR (FSP) (all)	WUoR (SEFF) ((all)	WUoR (SEFF) (UoR) including estimated fee for fees-only
A Clinical	Clinical and Veterinary Practice		3,469.9	3,807.3	3,469.9	3,807.3	15,377	14,014	14,272
B Lab-based	Science		21,300.4	22,927.0	33,783.2	35,994.4	7,942	7,454	7,577
	Engineering and Technology		10,590.8	11,079.3					
	Pre-clinical		1,892.0	1,988.2					
C Subjects with studio,	Education		7,084.1	9,706.4	44,229.1	50,377.5	6,773	5,946	6,201
etc	Built environment		3,989.4	4,982.4					
	Computing and Information Science		6,923.5	6,459.4					
	Other Health and Welfare		16,000.9	17,784.5					
	Creative Arts and Hospitality		7,738.7	8,717.3					
	Humanities, Languages & Business (languages only)		0.0	0.0					
	Mathematics, Statistics and OR		2,492.5	2,727.5					
D All other subjects	Humanities, Languages & Business (not languages)		30,404.9	31,685.7	44,236.4	46,702.0	4,530	4,290	4,414
	Social sciences		13,831.5	15,016.3					
	Total (excluding conservatoire)		125,718.6	136,881.2	125,718.6	136,881.2			
	Check (excluding conservatoire)		125,718.6	136,881.2					
	Total gross funding (excluding conservatoire)	821,608,858					6,535	6,002	6,177
	Average (calc from WUoR)						6,535	6,002	6,177

Assumptions/Approximations	Effect of this approximation
Full implementation of fees	Higher WUoR for SEFF inc fees-only fees
All UG fees-only are either medicine or FT degree	Higher WUoR for SEFF inc fees-only fees
Ignored conservatoire - one might want to add the student numbers to creative arts & hospitality along with calculated funding	Probably lower WUoR (all types) for price band C
Have not separated out language - one could estimate the proportions	Higher UoR (all measures) for price bands C and D
Included both teacher education and allied health professions/nursing, which I don't think HEFCE funds.	

Price band		HEI	HEFCE		SFC		
		UoR	UoR plus variable fee	UoR FSP	UoR SEFF	UoR SEFF and fees- only fees	
Α	Clinical	£15,332	£16,663	£15,377	£14,014	£14,272	
В	Lab-based	£6,516	£7,696	£7,942	£7,454	£7,577	
С	Significant practical element	£4,983	£6,094	£6,773	£5,946	£6,201	
D	Other	£3,833	£4,933	£4,530	£4,290	£4,414	

Table C2 – SFC and HEFCE Unit of resource 2007-08

Notes

- The year of comparison is 2007-08.
- UoR is unit of resource, FSP is SFC funded student places and SEFF is SFC students eligible for funding.
- All UoRs are an average for undergraduate and taught postgraduate provision.
- HEFCE UoR is the UoR calculated from the price group weighting and the base price. In column "UoR plus variable fee" we have included an estimate of the amount of additional income institutions receive from variable fees. This estimate excludes income spent on bursaries and is an average across all levels of students in that price group.
- The column "UoR FSP" is an average UoR for SFC based on assigning the SFC funding subject groups to the HESA price bands and then calculating the total funding that would be available in each subject group (multiple the number of funded student places by the UoR for each funding subject group and then sum for all funding subject groups in that price band). This is then divided by the total number of funded student places in that price band. The purpose of this calculation is to allow us to compare SFC's UoR with HEFCE's (since they only have 4 UoRs).
- The column "UoR SEFF" is calculated in a similar manner, except that the total funding is divided by the total number of students eligible for funding in that price group. The point of this calculation is that although funding is allocated on the basis of funded student places, in reality HEIs spend it on the basis of students eligible for funding and since there are more students eligible for funding than funded student places, the funding is spread more thinly than "UoR FSP" would suggest.

APPENDIX D – Weightings of RAE outputs comparison

Subject Cost Relatives	SFC weighting	HEFCE weighting
Clinical medicine and laboratory based subjects - classed as high cost laboratory and clinical subjects	1.6	1.6
Subjects with a technical/experimental premium - Intermediate cost subjects	1.2	1.3
Other subjects - classed as low cost group	1.00	1.0

Quality Measures	Quality Rating	SFC weighting	HEFCE weighting
Quality that is recognised nationally in terms of originality, significance & rigour	1*	0.125	0.00
Quality recognised internationally in terms of originality, significance & rigour	2*	1.000	1.00
Quality that is internationally excellent in terms of originality, significance & rigour but which nevertheless falls short of the highest standards of excellence	3*	3.375	3.00
Quality that is world-leading in terms of originality, significance & rigour	4*	8.000	9.00
Quality that falls below the standard of nationally recognised work, or does not meet the published definition of research for the assessment		0.000	0.000

Activity Indicators

There is one key indicator: the FTE number of research active staff (category A staff); and a number of other activity indicators.

Activity Indicators	SFC weighting	HEFCE weighting
Research fellows	-	0.10
Charitable income (in units of £25,000, as a staff equivalent)		0.05
Research active staff	1.00	1.00
Research students	0.15	0.15
Research assistants	0.15	0.10
Research income (excluding charity income)	#	**
Charity Income	~	**

0.15, divided by £35,000 (assumed to be average cost of research assistant. An extra weight of 1.732755 is used to direct sufficient funding to fill the estimated 10% full economic cost "gap"

~ 0.15, divided by £35,000 (assumed to be average cost of a research assistant. An extra weight of 2.6598898 is used to direct funding to support the full economic costs of charity funded research.

** Research Income and Charity Income are not used within the weighting calculations for HEFCE with separate income streams provided within the Main Funding letter

APPENDIX E – Analysis of other grants

Other Grant Funding 2007/08

HEFCE	SFC
Other Grants – teaching	Other Grants – teach
Mainstream additional funded places Non-mainstream funded places (2) Widening participation (1) Other recurrent teaching grants (3)	Part-time incentive premium Widening Access retention premium Disabled students premium Small specialist institution supplementary grant
Other Grants – Research	Other Grants - Research
Research Capability Fund	Research Development foundation grant Research Postgraduate grant Knowledge Transfer grant
Other Grants	Other Grants
Moderation of teaching and research	Libraries Access Fund
Additional funding for very high cost and	Museums, Galleries and Collections Grant
vulnerable science subjects	FE / HE Articulation grant
Special funding (4)	Learning and Teaching Infrastructure Funds

Sources:

HEFCE annual grant letter 2007/08 SFC annual grant letter 2007/08

(1) Widening participation

Widening access for people from disadvantaged backgrounds Improving retention Students with disabilities

(2) Funding for non-mainstream places

Lifelong Learning Networks Co-funded employer engagement Higher level skills pathfinders Skillset screen academies

(3) Other recurrent teaching grants

Dance and drama awards Clinical consultants" pay

(4) Special funding

National facilities – Copyright libraries Inherited activities – London whole institution Transitional funding: college fees Overseas Research Students Awards Scheme (ORSAS)

APPENDIX F – Funding Indexation

We have developed 3 indices that show how funding has changed in Scotland and England over the period 1999-2000 to 2010-2011. For each index, we have used 2003-2004 as the starting point, because we were unable to obtain published data at a sufficiently detailed level for English government spending (either budget or actual expenditure) prior to 2003-2004. However, we are aware that members of TAG wished to see the data from 2000 forward so, where that data was available, we have included it below. The indices have been presented to show real terms growth alongside the cash figures; these calculations were made using the latest HM Treasury GDP deflators.

Index 1: Funding awarded through Funding Bodies

The first index shows funding allocated through the Scottish and English funding bodies inclusive of assumed fees, while the second shows the funding exclusive of assumed fees.

The SFC figures have been taken from Table 1 of the annual grant letters issued by the SFC (and its predecessor body) to Higher Education Institutions. The HEFCE figures have also been taken from Table 1 of the annual recurrent grant allocation letter it issues to funded bodies. It should be noted that HEFCE fees are calculated using income based on a standard fee, which may not be the full fee that the student is charged but we were unable to find a source of information that would provide the full fee for each of the years in the index.

Scotland / England Funding Index – Funding Body Allocations

	SFC			HEFCE		
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
1999-2000	725,897	100.0		4,364,294	100.0	
2000-01	764,915	102.9		4,531,915	103.8	
2001-02	807,301	111.2		4,708,784	107.9	
2002-03	863,218	118.9		4,966,532	113.8	
2003-04	901,213	124.2	100.0	6,124,612	140.3	100.0
2004-05	964,976	132.9	107.1	6,669,961	152.8	108.9
2005-06	993,306	136.8	110.2	7,003,245	160.5	114.3
2006-07	1,178,680	162.4	130.8	7,458,550	170.9	121.8
2007-08	1,265,973	174.4	140.5	7,870,169	180.3	128.5
2008-09	1,304,236	179.7	144.7	8,263,851	189.4	134.9
2009-10	1,356,378	186.9	150.5	n/a	-	-
2010-11	1,351,896	186.2	150.0	n/a	-	-

1a – Includes student funding figures

1a includes student funding figures - real terms growth

Note1 : HEFCE figures use "Total Resource" from Table 1, including regulated fee income, for Universities, General Colleges and Specialist Institutions but excluding FE Colleges. Note 2: HEFCE Figures taken from Table 3 of the provisional grant letter each year include allocations to FE Colleges.

Note 3: SFC figures are calculated as "Total funding" from table 1 + total assumed fee income from Table A2 of the annual grant allocation letter.

	SFC		HEFCE			
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
	(2008-09 prices)			(2008-09 prices)		
1999-2000	912,320	100.0		5,485,118	100.0	
2000-01	926,576	101.6		5,622,012	102.5	
2001-02	979,571	107.4		5,713,589	104.2	
2002-03	1,014,736	111.2		5,838,290	106.4	
2003-04	1,030,327	112.9	100.0	7,002,068	127.7	100.0
2004-05	1,073,383	117.7	104.2	7,419,273	135.3	106.0
2005-06	1,085,210	119.0	105.3	7,651,211	139.5	109.3
2006-07	1,245,915	136.6	120.9	7,884,006	143.7	112.6
2007-08	1,300,916	142.6	126.3	8,087,398	147.4	115.5
2008-09	1,304,236	143.0	126.6	8,263,851	150.7	118.0
2009-10	1,334,147	146.2	129.5	n/a	-	-
2010-11	1,292,263	141.6	125.4	n/a	-	-

1b – Excludes student funding figures

Academic	SFC		HEFCE			
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
1999-2000	596,861	100.0		3,696,093	100.0	
2000-01	615,739	102.8		3,816,453	103.3	
2001-02	672,534	112.3		3,977,874	107.6	
2002-03	723,782	120.9		4,948,869	133.9	
2003-04	764,775	127.7	100.0	5,318,739	143.9	100.0
2004-05	817,468	136.5	106.9	5,830,733	157.8	109.6
2005-06	842,601	140.7	110.2	6,132,807	165.9	115.3
2006-07	1,007,255	168.2	131.7	6,542,227	177.0	123.0
2007-08	1,078,686	180.1	141.0	6,914,913	187.1	130.0
2008-09	1,102,424	184.1	144.2	7,258,157	196.4	136.5
2009-10	1,140,002	190.4	149.7	7,727,294	209.1	145.3
2010-11	1,130,369	188.7	147.8	7,137,383	193.1	134.2

Source: SFC & HEFCE Grant Allocation Letters

Academic	SFC		HEFCE			
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
1999-2000	752,684	100.0		4,645,312	100.0	
2000-01	763,847	101.5		4,734,454	101.9	
2001-02	816,046	108.4		4,826,711	103.9	
2002-03	850,825	113.0		5,817,526	125.2	
2003-04	874,342	116.2	100.0	6,080,742	130.9	100.0
2004-05	909,303	120.8	104.0	6,485,765	139.6	106.7
2005-06	920,562	122.3	105.3	6,700,237	144.2	110.2
2006-07	1,064,712	141.5	121.8	6,915,414	148.9	113.7
2007-08	1,108,459	147.3	126.8	7,105,776	153.0	116.9
2008-09	1,102,424	146.5	126.1	7,258,157	156.2	119.4
2009-10	1,121,317	149.0	128.2	7,600,644	163.6	125.0
2010-11	1,080,508	143.6	123.6	6,822,547	146.9	112.2

1b – Excludes student funding figures – real terms growth

Note1 : HEFCE figures use "Total Resource" from Table 1, excluding regulated fee income, for Universities, General Colleges and Specialist Institutions but excluding FE Colleges. Note 2: HEFCE Figures taken from Table 3 of the provisional grant letter each year include allocations to FE Colleges.

Note 3: SFC figures are calculated as "Total funding" from table 1.

Data was taken from the following circulars:

Year	SFC References	HEFCE References
1999-2000	Tables 1 & A2, Circular HE/13/99	Table 1, HEFCE recurrent grant letter - final allocations 99/49
2000-01	Tables 1 & A2, Circular HE/10/00	Table 1, HEFCE recurrent grant letter - final allocations 00/34
2001-02	Tables 1 & A2, Circular HE/09/01	Table 1, HEFCE recurrent grant letter - final allocations 01/57
2002-03	Tables 1 & A2, Circular HE/15/02	Table 1, HEFCE recurrent grant letter - final allocations 02/44 & Table 3, HEFCE recurrent grant letter 02/11
2003-04	Tables 1 & A2, Circular HE/09/03	Table 1, HEFCE recurrent grant letter - final allocations 03/53 & Table 3, HEFCE recurrent grant letter 03/10
2004-05	Tables 1 & A2, Circular HE/10/04	Table 1, HEFCE recurrent grant letter - final allocations 04/38 & Table 3, HEFCE recurrent grant letter 04/12
2005-06	Tables 1 & A2, Circular HE/08/05	Table 1, HEFCE recurrent grant letter - final allocations 05/43 & Table 3, HEFCE recurrent grant letter 05/13
2006-07	Tables 1 & A2, Circular SFC/22/2006	Table 1, HEFCE recurrent grant letter - final allocations 06/43 & Table 3, HEFCE recurrent grant letter 06/08
2007-08	Tables 1 & A2, Circular SFC/19/2007	Table 1, HEFCE recurrent grant letter - final allocations 07/32 & Table 3, HEFCE recurrent grant letter 07/06
2008-09	Tables 1 & A2, Circular SFC/10/2008	Table 1, HEFCE recurrent grant letter - final allocations 08/40 & Table 3, HEFCE recurrent grant letter 08/12
2009-10	Tables 1 & G2, Circular SFC/14a/2009	Table 1, HEFCE recurrent grant letter - final allocations 09/42 & Table 3, HEFCE recurrent grant letter 09/08
2010-11	Tables 1 & G2, Circular SFC/11/2010	Table 1, HEFCE recurrent grant letter - provisional allocations 10/08

Student funding figures are taken as assumed funding for SFC, as included in the grant letters (tables A.2). Similarly, the HEFCE student funding figures used are the regulated fee income figures. As noted elsewhere in our report, finding data that is directly comparable has proven to be a major challenge during this project. For example, part time and taught post graduate fees are unregulated fees in both Scotland and England.

Index 2: Universities' Total Income

This index shows total University income, as reported in Tables 1 - 5 of the HESA Finance data tables. As above, we have calculated an index from academic year 2003-04, as this is the year from which we have available data for all three indices. We have also included the data available from academic year 1999-2000, for information.

	Scotland		England			
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
1999-2000	1,456,915	100.0		10,464,649	100.0	
2000-01	1,513,246	103.9		11,068,645	105.8	
2001-02	1,663,461	114.2		11,839,076	113.1	
2002-03	1,766,354	121.2		12,728,918	121.6	
2003-04	1,824,029	125.2	100.0	13,890,631	132.7	100.0
2004-05	1,936,344	132.9	106.2	14,821,360	141.6	106.7
2005-06	2,064,336	141.7	113.2	16,114,968	154.0	116.0
2006-07	2,258,574	155.0	123.8	17,591,618	168.1	126.6
2007-08	2,481,940	170.4	136.1	19,400,191	185.4	139.7
2008-09	2,663,203	182.8	146.0	20,993,636	200.6	151.1

Scotland / England Funding Index – Universities' Total Income

Source: HESA Funding tables

Scotland / England Funding Index – Universities' Total Income – real terms growth

	Scotland			England		
Year	£'000	Index 1	Index 2	£'000	Index 1	Index 2
	(2008-09 prices)			(2008-09 prices)		
1999-2000	1,831,075	100.0		13,152,147	100.0	
2000-01	1,877,239	102.5		13,731,072	104.4	
2001-02	2,018,426	110.2		14,365,412	109.2	
2002-03	2,076,396	113.4		14,963,180	113.8	
2003-04	2,085,353	113.9	100.0	15,880,704	120.7	100.0
2004-05	2,153,875	117.6	103.3	16,486,410	125.4	103.8
2005-06	2,255,336	123.2	108.2	17,605,984	133.9	110.9
2006-07	2,387,409	130.4	114.5	18,595,092	141.4	117.1
2007-08	2,550,446	139.3	122.3	19,935,668	151.6	125.5
2008-09	2,663,203	145.4	127.7	20,993,636	159.6	132.2

Index 3: Government Department Allocations

The Scottish figures are taken from the Scottish Government budget documents for each of the financial years. For Index 3a, they include funding for SFC (and the predecessor body, SHEFC) and SAAS. For index 3b, we have excluded any SAAS funding.

The budget documents for the Department of Education (and its predecessor bodies) do not contain sufficient detail to show the budgeted allocation for HEFCE. We have therefore taken the English figures from Annex 1 of the Department of Innovation, Universities and Skills (DIUS) Annual Report for 2008/09. As a result, the figures included in the table 2004 – 2008

are outturn figures. The 2009 figures are provisional outturn, while 2010 and 2011 are budget figures.

The English figures included in Index 3a incorporate Higher Education Resource and Capital Delegated Expenditure Limits (DEL) as well as Resource and Capital Annually Managed Expenditure (AME). These categories include expenditure on student loans, student grants, HEFCE and other support for higher education. They do not include expenditure on Research Councils, as this is also available to Scottish Universities.

Index 3b deducts funding for student grants and student loans (capital and revenue) from the figures in index 3a. This gives an approximation of the impact of student support funding, based on the data available.

Financial	Scotland		Eng	gland	
Year	£'000	Indexed	£'000	Indexed	
2003-04	1,264,307	100.0	8,711,806	100.0	
2004-05	1,342,019	106.1	8,773,057	100.7	
2005-06	1,402,476	110.9	9,845,030	113.0	
2006-07	1,505,621	119.1	10,952,110	125.7	
2007-08	1,577,700	14,8	13,053,822	149.8	
2008-09	1,554,600	123.0	13,984,506	160.5	
2009-10	1,618,500	128.0	15,004,026	172.2	
2010-11	1,659,200	131.2	15,303,343	175.7	

3a: Departmental Budget allocation, including student support funding

Source: Scottish Government Budget documents

DIUS report 2009 – Annex 1, Tables 1, 2 & 3

3a: Departmental Budget allocation, including student support funding – real terms growths

Financial	Scotland		Eng	and
Year	£'000	Indexed	£'000	Indexed
	(2008-09 prices)		(2008-09 prices)	
2003-04	1,445,441	100.0	9,959,923	100.0
2004-05	1,492,783	103.3	9,758,633	98.0
2005-06	1,532,238	106.0	10,755,928	108.0
2006-07	1,591,506	110.1	11,576,849	116.2
2007-08	1,621,247	112.2	13,414,129	134.7
2008-09	1,554,600	107.6	13,984,506	140.4
2009-10	1,591,973	110.1	14,758,110	148.2
2010-11	1,586,011	109.7	14,628,300	146.9

Financial	Scotland		England	
Year	£'000	Indexed	£'000	Indexed
2003-04	737,019	100.0	5,443,638	100.0
2004-05	876,897	106.8	5,716,964	105.0
2005-06	852,491	115.7	6,368,308	117.0
2006-07	961,636	130.5	6,612,136	121.5
2007-08	1,018,400	138.2	6,942,571	127.5
2008-09	1,044,000	141.7	7,281,217	133.8
2009-10	1,101,300	149.4	7,627,303	140.1
2010-11	1,085,500	147.3	7,409,549	136.1

3b: Departmental Budget allocation, excluding student support funding

Source: Scottish Government Budget documents

DIUS report 2009 – Annex 1, Tables 1, 2 & 3

3b: Departmental Budget allocation, excluding student support funding – real term	S
growth	

Financial	Scotland		England			
Year	£'000	Indexed	£'000	Indexed		
	(2008-09 prices)		(2008-09 prices)			
2003-04	842,610	100.0	6,223,533	100.0		
2004-05	875,298	103.9	6,359,215	102.2		
2005-06	931,367	110.5	6,957,527	111.8		
2006-07	1,016,490	120.6	6,989,310	112.3		
2007-08	1,046,509	124.2	7,134,197	114.6		
2008-09	1,044,000	123.9	7,281,217	117.0		
2009-10	1,083,250	128.6	7,502,292	120.5		
2010-11	1,037,618	123.1	7,082,708	113.8		

APPENDIX G – OECD member countries

The OECD member countries are:

- Australia,
- Austria,
- Belgium,
- Canada,
- the Czech Republic,
- Denmark,
- Finland,
- France,
- Germany,
- Greece,
- Hungary,
- lceland,
- Ireland,
- Italy,
- Japan,
- Korea,
- Luxembourg,
- Mexico,
- the Netherlands,
- New Zealand,
- Norway,
- Poland,
- Portugal,
- the Slovak Republic,
- Spain,
- Sweden,
- Switzerland,
- Turkey,
- the United Kingdom, and
- the United States.

The Commission of the European Communities takes part in the work of the OECD and in May 2007, the OECD agreed to invite Chile, Estonia, Israel, Russia and Slovenia to open discussions for membership of the Organisation and offered enhanced engagement, with a view to possible membership, to Brazil, China, India, Indonesia and South Africa.

APPENDIX H – ISCED definitions of tertiary education

Level 5 – First stage of tertiary education (not leading directly to an advanced research qualification)

Principal characteristics

This level consists of tertiary programmes having an educational content more advanced than those offered at levels 3 and 4. Entry to these programmes normally requires the successful completion of ISCED level 3A or 3B or a similar qualification at ISCED level 4A.

All degrees and qualifications are cross-classified by type of programmes, position in national degree or qualification structures (see below) and cumulative duration at tertiary.

Classification criteria

For the definition of this level, the following criteria are relevant:

- normally the minimum entrance requirement to this level is the successful completion of ISCED level 3A or 3B or ISCED level 4A;
- level 5 programmes do not lead directly to the award of an advanced research qualification (level 6); and
- these programmes must have a cumulative theoretical duration of at least 2 years from the beginning of level 5.

Complementary dimensions

Three complementary dimensions are needed to subdivide this level:

- the type of programmes dividing programmes into theoretically based/research preparatory/giving access to professions with high skills requirements programmes on the one hand, practical/technical/occupationally specific programmes on the other hand;
- the cumulative theoretical duration in full time equivalence; and
- the position in the national degree or qualification structure (first, second or further degree, research).

Combining these three independent dimensions is the only way to capture the broad variety in the provision of tertiary education. The choice of the combination depends on the problems to analyse.

Type of programmes

The first dimension to be considered is the distinction between the programmes which are theoretically based/research preparatory (history, philosophy, mathematics, etc.) or giving access to professions with high skills requirements (e.g. medicine, dentistry, architecture,

etc.), and those programmes which are practical/technical/occupationally specific. To facilitate the presentation, the first type will be called 5A, the second, 5B.

With the increasing demand for tertiary education in many countries, the distinction between long streams and short streams is very important. The long stream programmes are more theoretical and can lead to advanced research programmes or a profession with high skills requirements. The short streams are more practically oriented.

As the organizational structure of tertiary education programmes varies greatly across countries, no single criterion can be used to define boundaries between ISCED 5A and ISCED 5B. The following criteria are the minimum requirements for classifying a programme as ISCED 5A, although programmes not satisfying a single criterion should not be automatically excluded. If a programme is similar in content to other programmes meeting each of these criteria, it should be classified at level 5A.

ISCED level 5A programmes are tertiary programmes that are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and profession with high skills requirements. They must satisfy a sufficient number of the following criteria:

- they have a minimum cumulative theoretical duration (at tertiary) of three years" fulltime equivalent, although typically they are of 4 or more years. If a degree has 3 years" full-time equivalent duration, it is usually preceded by at least 13 years of previous schooling. For systems in which degrees are awarded by credit accumulation, a comparable amount of time and intensity would be required;
- they typically require that the faculty have advanced research credentials;
- they may involve completion of a research project or thesis;
- they provide the level of education required for entry into a profession with high skills requirements or an advanced research programme.

Qualifications in category 5B are typically shorter than those in 5A and focus on occupationally specific skills geared for entry into the labour market, although some theoretical foundations may be covered in the respective programme.

The content of ISCED level 5B programmes is practically oriented/occupationally specific and is mainly designed for participants to acquire the practical skills, and know-how needed for employment in a particular occupation or trade or class of occupations or trades - the successful completion of which usually provides the participants with a labour-market relevant qualification.

A programme should be considered as belonging to level 5B if it meets the following criteria:

- it is more practically oriented and occupationally specific than programmes at ISCED 5A, and does not provide direct access to advanced research programmes;
- it has a minimum of two years" full-time equivalent duration but generally is of 2 or 3 years. For systems in which qualifications are awarded by credit accumulation, a comparable amount of time and intensity would be required;
- the entry requirement may require the mastery of specific subject areas at ISCED 3B or 4A; and
- it provides access to an occupation.

Cumulative theoretical duration

For initial programmes at tertiary, the cumulative theoretical duration is simply the theoretical full-time equivalent duration of those programmes from the beginning of level 5.

For programmes that require completion of other tertiary programmes prior to admission (see national degree and qualification structure below), cumulative duration is calculated by adding the minimum entrance requirements of the programme (i.e. full-time equivalent years of tertiary education prerequisites) to the full-time equivalent duration of the programme.

For degrees or qualifications where the full-time equivalent years of schooling is unknown (i.e. courses of study designed explicitly for flexible or part-time study), cumulative duration is calculated based on the duration of more traditional degree or qualification programmes with a similar level of educational content.

National degree and qualification structure

This dimension cross-classifies both ISCED 5A and 5B qualifications by their position in the national qualification structure for tertiary education within an individual country.

The main reason the national degree and qualification structure is included as a separate dimension is that the timing of these awards mark important educational and labour market transition points within countries. For example, in country A, a student who completes a three year Bachelor's degree programme will have access to a wide range of occupations and opportunities for further education, whereas the same student studying in country B (which does not distinguish between a first and second university degree) will only obtain a labour market relevant qualification after the completion of a full four or five year degree programme, even though the content may be similar to that of a second (Master's) degree programme in country A.

The "position" of a degree or qualification structure is assigned (first, second or further, research) based on the internal hierarchy of awards within national education systems. For example, a first theoretically based degree or qualification (cross-classifying "theoretically based" type of programme 5A with "first" in the national degree and qualifications structure) would necessarily meet all of the criteria listed above for a theoretically based programme and lead to the first important educational or labour market qualification within this type of

programme. The research degree is intended for the countries which have a non-doctoral research degree such as the Master of Philosophy in some countries and want to have it clearly distinguished in international statistics.

When "theoretically based" programmes are organized and provide sequential qualifications, usually only the last qualification gives direct access to level 6, but all these programmes are allocated to level 5A.

Bachelor's degrees in many English-speaking countries, the "Diploma" in many Germanspeaking countries, and the Licence in many French-speaking countries meet the content criteria for the first theoretically based programmes. Second and higher theoretically based programmes (e.g. Master's degree in English-speaking countries and Maîtrise in Frenchspeaking countries) would be classified separately from advanced research qualifications, which would have their own position in ISCED 6 (see below).

Degrees or qualifications with a different numerical ranking in two countries may be equivalent in educational content. For instance, programmes leading to a "graduate" or second degree in many English-speaking countries have to be classified at level 5 as is the case for long first degrees in many German-speaking countries. It is only by combining national degree structure with other tertiary dimensions, such as cumulative theoretical duration and programme orientation, that enough information is available to group degrees and qualifications of similar education content.

Level 6 – Second stage of tertiary education (leading to an advanced research qualification)

Principal characteristics

This level is reserved for tertiary programmes which lead to the award of an advanced research qualification. The programmes are therefore devoted to advanced study and original research and are not based on course-work only.

Classification criteria

For the definition of this level, the following criteria are relevant:

- Main criterion It typically requires the submission of a thesis or dissertation of publishable quality which is the product of original research and represents a significant contribution to knowledge.
- Subsidiary criterion It prepares graduates for faculty posts in institutions offering ISCED 5A programmes, as well as research posts in government, industry, etc.

APPENDIX I – OECD Indicators

This listing sets out the indicators and tables published within each of chapters A - D of the OECD publication Education at a Glance 2009. The document also includes charts, which we have not included here as they largely replicate the data included within the tables. We have also excluded any tables that do not have data relevant to tertiary education.

Chapter A: The Output of Educational Institutions and the Impact of Learning

A1 - To what level have adults studied?

Table A1.1a. Educational attainment: adult population (2007)
Table A1.1b. (Web only) Educational attainment: Male population (2007)
Table A1.1c. (Web only) Educational attainment: Female population (2007)
Table A1.3a. Population with tertiary education (2007)
Table A1.3b. (Web only) Male population with tertiary education (2007)
Table A1.3c. (Web only) Female population that has attained tertiary education (2007)
Table A1.4. Trends in educational attainment: 25-64 year-old population (1997-2007)
Table A1.5. Annual average growth in 25-64 year-old population between 1998 and 2006
Table A1.6. Proportion of age cohorts in skilled jobs (ISCO 1-3) by educational attainment (2006, 1998)

A2 - How many students finish secondary education and access tertiary education?

Table A2.1. Upper secondary graduation rates (2007)

Table A2.2 Trends in graduation rates (first-time) at upper secondary level (1995-2007)

Table A2.3. Post-secondary non-tertiary graduation rates (2007)

Table A2.4. Entry rates to tertiary education and age distribution of new entrants (2007)

Table A2.5. Trends in entry rates at tertiary level (1995-2007)

Table A2.6. (Web only) Percentage of new entrants in tertiary education and proportion of females, by field of education (2007)

A3 - How many students finish tertiary education?

Table A3.1 Graduation rates in tertiary education (2007)

Table A3.2. Trends in tertiary graduation rates (1995-2007)

Table A3.3. Graduation rate at different tertiary levels (2007)

Table A3.4. Completion rates in tertiary education (2005)

Table A3.5. (Web only) Percentage of tertiary graduates, by field of education (2007)

Table A3.6. (Web only) Percentage of tertiary qualifications awarded to females at tertiary level, by field of education (2007)

Table A3.7. (Web only) Science graduates among 25-34 year-olds in employment, by gender (2007) Table A3.8. (Web only) Trends in net graduation rates at advanced research qualification level (1995-2007)

A6 - How does participation in education affect participation in the labour market?

Table A6.1a. Employment rates and educational attainment, by gender (2007)

Table A6.1b. (Web only) Employment rates and educational attainment (2007)

Table A6.2a. Trends in employment rates of 25-64 year-olds by educational attainment (1997-2007)

Table A6.2b. (Web only) Trends in employment rates of male 25-64 year-olds by educational attainment (1997-2007)

Table A6.2c. (Web only) Trends in employment rates of female 25-64 year-olds by educational attainment (1997-2007)

Table A6.2d (Web only) Trends in employment rates of 55-64 year-olds by educational attainment (1997-2007)

Table A6.3a. Unemployment rates and educational attainment, by gender (2007)

Table A6.3b. (Web only) Unemployment rates and educational attainment (2007)

Table A6.4a. Trends in unemployment rates by educational attainment (1997-2007)

Table A6.4b. (Web only) Trends in unemployment rates of males by educational attainment (1997-2007) Table A6.4c. (Web only) Trends in unemployment rates of females by educational attainment (1997-2007)

A7 - What are the economic benefits of education?

Table A7.1a. Relative earnings of the population with income from employment (2007 or latest available year)

Table A7.1b. (Web only) Differences in earnings between females and males (2007 or latest available year)

Table A7.2a. Trends in relative earnings: adult population (1997-2007)

Table A7.2b. Trends in relative earnings: male population (1997-2007)

Table A7.2c. Trends in relative earnings: female population (1997-2007)

Table A7.3. Trends in differences in earnings between females and males (1997-2007)

Chapter B: Financial and Human Resources Invested in Education

B1 - How much is spent per student?

Table B1.1a. Annual expenditure on educational institutions per student for all services (2006) Table B1.1b. (web only) Annual expenditure on educational institutions per student for core services (2006)

Table B1.2. Annual expenditure per student on core services, ancillary services and R&D (2006) Table B1.3b. Cumulative expenditure on educational institutions per student for all services over the average duration of tertiary studies (2006)

Table B1.4. Annual expenditure on educational institutions per student for all services relative to GDP per capita (2006)

Table B1.5. Change in expenditure on educational institutions for all services per student relative to different factors, by level of education (1995, 2000, 2006)

Table B1.6. (web only) Distribution of expenditure (as a percentage) on educational institutions compared to the number of students enrolled at each level of education (2006)

B2 - What proportion of national wealth is spent on education?

Table B2.1. Expenditure on educational institutions as a percentage of GDP, by level of education (1995, 2000, 2006)

Table B2.2. Expenditure on educational institutions as a percentage of GDP, by level of education (2006) Table B2.3. Expenditure on educational institutions as a percentage of GDP (2006), proportion of the population at basic ages of primary to tertiary education (school year 2006/2007) and demographic trends (2000-2015)

Table B2.4. Expenditure on educational institutions as a percentage of GDP, by source of fund and level of education (2006)

Table B2.5. (web only) Change in expenditure on educational institutions and in GDP (1995, 2000, 2006)

B3 - How much public and private investment is there in education?

Table B3.1. Relative proportions of public and private expenditure on educational institutions for all levels of education (2000, 2006)

Table B3.2b. Relative proportions of public and private expenditure on educational institutions, as a percentage, for tertiary education (2000, 2006)

Table B3.3. Trends in relative proportions of public expenditure1 on educational institutions and index of change between 1995 and 2006 (2000=100), for tertiary education (1995, 2000, 2002, 2003, 2004, 2005, 2006)

B4 - What is the total public spending on education?

Table B4.1. Total public expenditure on education (1995, 2000, 2006)

Table B4.2. (Web only) Distribution of total public expenditure on education (2006)

Table B4.3b. (web only) Initial sources of public educational funds and final purchasers of educational resources (2006)

B5 - How much do tertiary students pay and what public subsidies do they receive?

Table B5.1a. Estimated annual average tuition fees charged by tertiary-type A educational institutions for national students (academic year 2006/2007)

Table B5.1b (Web only) Estimated annual average tuition fees charged by tertiary-type B educational institutions1 for national students (academic year 2006/07)

Table B5.2. Distribution of financial aid to students compared to amount of tuition fees charged in tertiary-type A education (academic year 2006/2007)

Table B5.3. Financial support to students through public loans in tertiary-type A education (academic year 2004/2005)

Table B5.4. Public subsidies for households and other private entities as a percentage of total public expenditure on education and GDP, for tertiary education (2006)

Table B5.5. (Web only) Public subsidies for households and other private entities as a percentage of total public expenditure on education and GDP, for primary, secondary and post-secondary non-tertiary education (2006)

B6 - On what resources and services is education funding spent?

Table B6.1. Expenditure on educational institutions by service category as a percentage of GDP (2006)

Table B6.2b. Expenditure on educational institutions by resource category and level of education (2006)

Chapter C: Access to Education, Participation and Progression

C1 - Who participates in education?

Table C1.3. Transition characteristics from age 15-20, by level of education (2007)Table C1.6. Students in tertiary education by type of institution or mode of study (2007)Table C1.7. (Web only) Education expectancy (2007)Table C1.8. (Web only) Expected years in tertiary education (2007)

C2 - Who studies abroad and where?

Table C2.1. Student mobility and foreign students in tertiary education (2000, 2007)

Table C2.2. Distribution of international and foreign students in tertiary education, by country of origin (2007)

Table C2.3. Citizens studying abroad in tertiary education, by country of destination (2007)

Table C2.4. Distribution of international and foreign students in tertiary education, by level and type of tertiary education (2007)

Table C2.5. Distribution of international and foreign students in tertiary education, by field of education (2007)

Table C2.6. Trends in the number of foreign students enrolled outside their country of origin (2000 to 2007)

Table C2.7. (Web only) Number of foreign students in tertiary education, by country of origin and destination (2007) and market shares in international education (2000, 2007)

C3 - How successful are students in moving from education to work?

Table C3.3. Percentage of the cohort population not in education and unemployed (2007) Table C3.5. Proportion of long-term unemployed among unemployed 25-34 year-olds (2003 and 2007) Table C3.6. Part-time and involuntary part-time work among 25-34 year-olds by educational attainment (2007)

Chapter D: The Learning Environment and Organisation of Schools

D2 - What is the student-teacher ratio and how big are classes?

Table D2.2. Ratio of students to teaching staff in educational institutions (2007) Table D2.4b. Teaching staff and non-teaching staff employed in tertiary educational institutions (2007)

D7 - Who are the teachers?

Table D7.2. (Web only) Gender distribution of teachers (2007)

APPENDIX J – Education Expenditure Analysis

The attached analysis is based on the following sources for the year 2005-06:

- Scottish Government OECD UOE Return (with one correction for an incorrect calculation of Student Loan Support for HEI and Other students) including supporting information from HESA, SAAS and estimates based on estimated student numbers.
- HESA Tables

Tertiary Type A and Advanced Research Expenditure Analysis

REF	Description	£'000	£'000	£'000	Source of Data	Comments
	Central Government Expenditure Direct expenditure to HEIs (C2)		054 004 7			
1	Student Support - Eese HEI		854,984.7 105 458 0		SAAS	
3	Student Support - Fees Other institutions		312.0		SAAS	
4		-		960,754.	7	
	Payments for education to private entities					
5	Scholarships and other grants to students (C10)	71 096 0			8448	
6	Student Support - Award Other institutions	203.0			SAAS	
7			72,189.9			
	Student Loans (C11)					
8	Student Support - Loans HEI	143,711.4			SAAS	Corrected figure
10	Student Support - Loans Other Institutions	675.0	144.386.4		SAAS	
11				216,576.	3	
12	Local Government Expenditure			7	HESA Table 1d	
12				1.		
	Funds from International Agencies					
40	Direct expenditure to HEIs (F2)		04.040.0			
13	Research Grants and Contracts - EU Sources Research Grants and Contracts - Cher Overseas sources		31,810.0		HESA Table 1	
15	Research Grants and Contracts - Other Overseas sources	_	15,545.0	51,153.)	
	Private Expenditure					
	Household Expenditure					
16	Total Tuition Fees, Educational Grants and Contracts	434,585.4			HESA Table 1b	Includes non EU Student income
17	Less: Student Support - Fees HEI	-105,458.0			SAAS	
18	Less: Student Support - Fees Other institutions	-312.0			SAAS	
20	Add: Residences and catering income	115,562.0	444.377.4		HESA Table 10	
21	Purchases not directly related for participation (H16)		99,339.9			Based on student no.s and assumed expenditure
22				543,717.	3	
	Expenditure of other Private Entities (E2)					
23	Income from Health authorities (kcz) leaching contracts)		20.191.0		HESA Table 1d	
24	Income from Intellectual Property Rights		4,976.0		HESA Table 1d	
25	Income from UK Industry		33,352.0		HESA Table 1c	
20	income from UK based Chanties		91,716.0	150 235	HESA Table 10	
				100,200.	-	
28	Total		_	1,922,443.	3	
	HESA Data not used in OFCD Return					
	Research grants and contracts					
29	OSI Research Councils		134,298.0		HESA Table 1	
30	UK central Government, local and health authorities		71,727.0		HESA Table 1	
31	Other sources		6,974.0	212,999.	HESA Table 1	
	Other income - other services rendered			,		
33	UK central Government, local and health authorities, EU Govt		32,336.0		HESA Table 1	
34	Outer	-	0.880,00	92,974	DESA I ADIE 1	
00	Other Income			02,07 1.	-	
36	Release of deferred capital grants		11,196.0		HESA Table 1	
37	Other operating income	_	105,414.0	116 610	HESA Table 1	
30	Endowment and investment income			35,226.) HESA Table 1	
					_	
40	Total HESA Data not included in OECD Return		-	457,809.	<u>)</u>	
CALC	ULATED AMOUNTS	Lines				
	Total Expenditure per OECD Return (N20)	28-21	_	1,705,867.	0	Excludes Student Grants and Loans
	Paattick Buklis Paster Eve including Student Crants and Leave	4.11.10		4 477 200		
B	Scottish Public Sector Exp including Student Grants and Loans	4+12		960,761	7	
c	Scot. and UK PS exp incl Stud. Grants and Loans and UK Res Grants	4+11+12+32+35		1,483,311.)	
D	Scot. and UK PS exp excl Stud Grants and Loans but incl UK Res Grants	4+12+32+35		1,266,734.	7	
E	Pub & Privexp incl Stud Grants and Loans but excl exp not directly related to education (eg residences)	4+11+12+32+35+16+17+18	+27	1,962,361.	4	
G	University Income excl Student Grants and Loans but incl other income including residences and endowment income	28+40-11-15		2,112,523.	,)	
Ĥ	University Income excl Student Grants and Loans and other income including residences and endowment income	28+40-11-15-19-21		1,897,621.	1	
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Research Councils UK

Arts& Humanities Research Council BBSRC EPSRC ESRC Medical Research Council Natural Environment Research Council Science and Technology Facilities Council The Royal Society of Edinburgh The Wellcome Trust

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