



THE COMPARATIVE FUNDING OF HIGHER EDUCATION TEACHING IN SCOTLAND AND ENGLAND:

A Step by Step Calculation

There is a longstanding perception that the Scottish higher education sector receives a higher amount of money per student than the higher education sector in England. Over the last decade there has been a general belief that if you compare like for like, Scotland receives in the order of 10 per cent more funding per student. In recent years some people have expressed the opinion that this difference is actually more like 15 per cent or more. *Yet these claims are not based on any published calculations.* Indeed, there is no solid justification for these claims at all. For this reason, Universities Scotland contracted an independent consultant to find the most accurate comparison possible between the unit funding in Scottish and English higher education.

To achieve comparability between the two sectors, two specific processes have to be undergone. The first is to align the significantly different funding methodologies used on either side of the border (in particular the extensive use of top-slicing in England has to be rolled into the core teaching budget where the same resources can be found in Scotland). The second is to weight the two sectors for the significantly different subject provision (Scotland teaches proportionately more students in subjects such as medicine and engineering which are expensive to teach).

The comparison looks specifically at teaching funding. All the data comes from three official sources; HESA data for 2000-01 and the HEFCE and SHEFC Main Grant Letters for 2000-01.

The calculation has 19 steps, each of which is detailed below. The conclusion is that:

The unit funding for higher education teaching in Scotland is approximately 3.6 per cent higher than in England.

The step by step calculation

First of all, an unweighted unit cost for higher education in Scotland has to be calculated (Steps 1 to 7)

Step 1: Remove initial teacher education from Scotland

Initial Teacher Education (ITE) is not funded through HEFCE in England. To make Scotland comparable, these student numbers (and, in Step 4, the related funding) have to be removed from the overall student numbers. Scottish fees-only Education students are also subtracted.

Total student numbers	120,450
Subtract education numbers	7,146
Equals	113,304

Step 2: Remove Scottish postgraduate research from teaching numbers

Postgraduate Research (PGR) students should not be considered in teaching. These have to be removed from the Scottish numbers (and in Step 4 the related funding).

Student numbers	113,303
Subtract remaining PGR numbers	4,710
Equals	108,594

Step 3: Add Scottish fee income

The fee income has to be added to the main Teaching grant to arrive at an amount for the core funding of teaching. Expand this merging fee and fees only

T grant	£446,716,345
Add fee income	£131,176,352
Add fees-only	£18,448,774
Equals	£596,341,471

Step 4: Remove Scottish ITE and PGR funding

The funding related to the ITE students and the PGR students removed from overall student numbers in Steps 1 and 2 must be removed.

Total from Step 3	£596,341,471
Subtract ITE funding	£35,839,403
Subtract PGR funding	£23,396,246
Equals	£537,105,822

Step 5: Remove Scottish ITE and PGR fees

There are a number of 'fees only' students in ITE and PGR. The fee element for them must also be removed.

Total from Step 4	£537,105,822
Subtract fee only income for ITE & PGR	£3,281,666
Equals	£533,824,156

Step 6: Add in Scottish ring-fenced money

To make Scotland and England comparable, the money Scotland receives in other grants must also be added. There are three criteria for doing this used in this calculation. Grants which relate only to teaching are added in full. Grants which relate only to research are excluded. Grants which relate neither specifically to teaching or to research but will impact across both are added on a pro-rata basis according to the balance of overall public funding which goes to teaching and research (the ratio is 11:3, so 79 per cent of the value of these grants is added in). Grants then have to be scaled back for Education and PGR as before. Details of how the various Scottish grants have been treated can be found in Annex A.

Total from Step 5	£533,824,156
Add fold in of grants	£25,664,246
Equals	£559,488,402

Step 7: Calculate Scottish unit of funding

The unweighted unit funding for Scottish higher education is calculated by dividing the total teaching funding arrived at in Step 6 above by the number of students arrived at in Step 2 above.

Total teaching funding	£559,488,402
Divided by number of students	108,594
Equals	£5,152

A similar process has to be followed to calculate an unweighted unit of funding for England (Steps 8 to 12) (Note that, as it is difficult to remove student numbers for Belfast and Ulster which are funded by HEFCE, these remain in, as does the related funding. The impact of this should be neutral.)

Step 8: Remove English FE numbers

Student numbers in the English further education sector but funded by HEFCE have to be removed from the total number of student places for comparability.

Total students	935,832
Subtract FE students	50,346
Equals	885,486

Step 9: Remove PGR numbers from England

PGR students must be removed from the English total for comparability (see Step 2 above)

Total from Step 8	885,486 above
Subtract PGR numbers	15,227
Equals	870,259

Step 10: English standard resource

HEFCE provide a figure, known as standard resources, which includes core teaching grants and fee income so these do not have to be added separately.

Standard resource	£3,881,053,986
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Step 11: Add English ring-fenced money

As in Step 6 above, grants and initiative funding in England have to be folded in. This is done using the same methodology. Grants have to be scaled back to exclude FE as before. The ratio of teaching funding to research funding in England is 9/2 so 82 per cent of grants relating to both teaching and research are added. A list of how English grants have been allocated can be found in Annex B.

Standard resource	£3,881,053,986
Add folded-in grants	£302,406,327
Equals	£4,183,460,313

Step 12: Calculate English unit of resource

The unit cost for England is calculated by dividing the total funding (Step 11) by the total students (Step 9).

Unit of resource	£4,183,460,313
Divided by number of students	870,259
Equals	£4,807

The unweighted funding differential can now be calculated (Steps 13)

Step 13: Calculate index of difference

To calculate the unweighted differential in funding, an index is produced with England=100.

	100
Divided by unit England	£4,807
Multiplied by Unit Scotland	£5,152
Equals	107.2

Therefore in unweighted terms, Scotland receives 7.2% more than England. However, this is a meaningless comparison because Scotland delivers a different balance of subjects than England. As the cost of delivery of subjects varies widely, the two systems have to be weighted for subject balance (Steps 14 to 18).

Step 14: Convert Scottish students to English bands

Scotland and England have different funding bands for subjects. In England there are four, in Scotland 12. The spread of Scottish students across subjects therefore has to be mapped onto the English funding bands. This is done by adding together the student numbers in different Scottish bands which would be in the same band in England. The details of how this has been done can be found in Annex C.

		% total
Scottish students who would be in English Band A =	3,700	3.4%
Scottish students who would be in English Band B =	36,127	33.3%
Scottish students who would be in English Band C =	25,767	23.7%
Scottish students who would be in English Band D =	43,000	39.6%

Step 15: Calculate price for subject bands with grants included

The price paid per student for each of the English bands – including the folded-in grants – must now be calculated. Ring-fenced grants are distributed between the funding bands by pro-rating them on the basis of the price of those bands (details of how this has been done can be found in Annex D). The result is:

Band A = £14,156
Band B = £6,300
Band C = £4,772
Band D = £3,202

Step 16: Calculate the cost of funding English system with Scottish subject mix

The percentage of Scottish students who would be in each English band must now be multiplied by the English price of that band and the total number of English students to calculate how much it would cost to fund the English system with a Scottish subject mix.

(Total English student numbers 870,259) * (Scottish A % * price) + (Scottish B % * price) + (Scottish C % * price) + (Scottish D % * price) = £4,332,506,642

Step 17: Work out unit cost of English system with Scottish subject mix

To compare, a unit cost of Scottish provision at English prices has to be worked out by dividing the total arrived at in Step 16 by the number of English students.

Scottish provision at English prices	£4,332,506,642
Divided by English students	870,259
Equals	£4,978

Step 18: Calculate index of cost of subject difference

An index of the difference in the level of funding between Scotland and England due solely to balance of subject provision can now be calculated.

	100
Divided by unit England	£4,807
Multiplied by unit Scotland at English prices	£4,978
Equals	103.6

So the difference in funding you would expect due only to different subject provision is 3.6 per cent. The weighted difference can now be calculated

Step 19: Calculate weighted difference

The real difference in unit funding between Scotland and England can be calculated by subtracting the amount of funding difference due to balance of subject provision (Step 18) from the unweighted difference in actual funding (Step 13).

Difference in unit funding between Scotland and England = 7.2 per cent – 3.6 per cent = 3.6 per cent

The unit of funding difference between Scotland and England is therefore 3.6 per cent

ENDS

Allocation of Scottish grants to teaching and research funding

Source: 10 00 Table 1

	£000
Grants for Teaching	
Main Teaching Grant	446,716
Additional P/T Places	1,300
Total Main Teaching Grant	
Teaching-related Grants	
Collaborative Courses Grant	302
CPD Development Grant	1,633
Fee Anomalies Grant	600
Doctors' and Dentists' Pay Adjustment	200
Specialist Institution Supplementary Grant	231
Widening Access Grants	
Widening Access	2,200
Part-time Course Development Grant	350
Part-time Incentive Grant	5,483
Students with Disabilities Initiative	250
Part-time Fee Waiver Scheme	800
Total Other Grants for Teaching	
Grants for Research	
RAE-based Grant	111,783
Research Development Grant	12,000
Initiative Funding	
Promotion of Knowledge Transfer	1,000
Professionalisation of Commercialisation	2,030
Contract Research Staff Initiative	102
UK Activity Funding	
Joint Research Equipment Initiative	2,750
Arts and Humanities Research Board (AHRB)	2,130
UK Research Strategy Libraries Programme	1,117
Total Grants for Research	
Grants in Support of Strategic Change	
Strategic Change Initiative (of which communication and information technology and promotion of teaching and learning are allocated £2.8M)	12,320
Total Grants in Support of Strategic Change	
Other Grants	
Overseas Research Students Awards Scheme	1,230
Joint Information Systems Committee	5,600
Project-based Estates Grants	1,300
Museums, Galleries and Collections	882
Women in Science, Engineering and Technology Initiative	100
Other Miscellaneous Grants	1,330

(including contributions towards the Quality Assurance Agency assessment programme)	
Total Other grants	43,307

Other grants excluding MTG, RAE and RDG

Direct allocation to T	11,516
Share of other grants allocated to T	17,000
<i>Sub-total</i>	<i>28,516</i>
Less scale-back of T grants of 6% re Education	-1,711
Less scale-back of T grants of 4% re PGR	-1,141
Total T	25,664

Direct allocation to R	10,359
Share of other grants allocated to R	4,432
<i>Sub-total</i>	<i>14,791</i>
less scale-back relating to Education @ 6%	-887
plus value of T grants relating to PGR students	1,141
Total R	15,044

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Total	43,307
Direct T	11,516
Direct R	10,359
Pro rata	21,432

Allocation of Scottish grants to teaching and research funding

	AY 2000- 01 £M	Treat ment		AY 200 0-01 £M	Treat ment
Non-capital			Capital		
Strategic Learning and Teaching			From recurrent funding		
Existing projects (FDTL/TLTP/CTI)	2.0		Joint Research Equipment Initiative	17.0	R
Teaching Quality Enhancement Fund	25.1		Laboratory Refurbishment Initiative	4.0	pro rata
Learning and teaching support network	6.0		Poor Estates Initiative	45.0	pro rata
HE in FE Development Fund	3.0		Medical capital (Phase 1)	17.8	pro rata
Minority subjects (inc FSEES)	3.1		Tomlinson capital	3.0	pro rata
Quality Assurance Agency	6.0		<i>MAN Initiative</i>	2.0	pro rata
	45.2	T		88.8	
Strategic Access and Participation Initiatives (SLDD, Access & Participation, NABCE)	1.0		Earmarked capital		
Regional and other collaboration projects	5.8		Teaching project capital	15.0	T
Joint HEFCE/FEFC projects	2.0		SuperJANET 4	15.0	pro rata
Millennium Summer Schools	4.0		DNER	3.0	pro rata
Foundation degree prototypes	5.0		Poor Estates Initiative		pro rata
Support for Access administration costs	1.8		Research project capital	50.0	R
	19.6	T	Joint Infrastructure Fund	50.0	R
Strategic Research			e-University capital		pro rata
Collaborative Research Scheme	16.9		Joint Research Investment Fund	0.0	R
Specialist Research Libraries in the Humanities	0.0		Medical capital (Phase 2)		pro rata
Research Support Libraries Programme	9.0		IT Infrastructure		pro rata
Research Support Libraries Programme 2	0.0		Teaching and IT capital projects	0.0	T
Research into Teaching and Learning	3.0			133.0	
	28.9	R	Value for Money, Research & Development		
Strategic Business and the Community			PPP/PFI initiatives	2.0	
HEROBaC 1	18.5		Procurement Initiatives	0.0	
HEROBaC 2	0.0		Pricing and Costing Initiative	2.0	
DfEE Innovations Fund	3.0		Estates Good Practice	0.6	
Active Community Fund/Higher Education Innovation Fund	0.0		Institutional Studies, R & D programme and VFM	2.0	
	21.5	R	Equal Opportunities	0.2	
Strategic Sector			Management Development Fund	3.0	

Collaboration & Restructuring Fund	0.8		9.8	pro
e-University	0.0			rata
	0.8	pro		
		rata		
Strategic International Overseas Research Students Awards Scheme	11.0	R		
International Initiatives	0.0	pro		
		rata		
Chinese studies initiative	1.0	pro		
	12.0	rata		
National Facilities				
Copyright Libraries	3.0	pro		
		rata		
National Flying Laboratory Centre Marine Biology Field Station Millport	0.5	pro		
		rata		
Arts & Humanities Research Board (inc. Projects funds)	23.6	R		
Joint Information Systems Committee	27.7	pro		
	55.3	rata		
Inherited Activities				
Inherited Liabilities	79.0	pro		
		rata		
College Fees	10.0	T		
Dance and Drama	6.0	T		
London	10.0	pro		
	105.0	rata		
Sub-total	520.0			
Moderation	16.5			
<i>scaled back re FE</i>	15.7	T		
Widening access	31.3			
<i>scaled back re FE</i>	29.0	T		
Total	564.7			

*Other grants excluding MTG, RAE
and RDG*

Direct allocation to T	140.6		
Share of other grants allocated to T	181.1	MTG	82%
Total	321.7	R	18%
Less scale-back of T grants of 6% re FE	-19.3		
Total	302.4		

Direct allocation to R	202.5
Share of other grants allocated to R	40.5
Total	243.0

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Total	564.7	TRUE
Direct T	140.6	TRUE
Direct R	202.5	TRUE
Pro rata	221.6	TRUE

Mapping Scottish provision to English price bands

Funding Subject Group	Level	Total Funded Places for 2000-01	fees-only actuals from 2001-2 figures	HEFC E groups
Pre-clinical Medicine	Undergraduate	1,758.0	29.9	B
Pre-clinical Dentistry	Undergraduate	207.0	-1.8	B
Clinical Medicine				A
	Taught PG Undergraduate	138.7	55.0	
Clinical Dentistry		2,146.0	-38.9	A
	Taught PG Undergraduate	5.0	2.5	
Veterinary Science		377.0	5.6	A
	Taught PG Undergraduate	9.0	3.2	
Other Health & Welfare		695.1	26.4	B/C
	Taught PG Undergraduate	494.9	869.1	
Science		6,613.6	1,552.6	B
	Taught PG Undergraduate	561.7	61.2	
		17,425.0	507.1	
Engineering & Technology				B
	Taught PG Undergraduate	834.6	98.4	
		9,534.0	346.9	
Built Environment				C
	Taught PG Undergraduate	409.7	100.8	
		3,723.6	189.3	
Mathematics, Statistics & Operational Research				C
	Taught PG Undergraduate	94.5	2.3	
		1,986.1	138.1	
Computing & Information Science				C
	Taught PG Undergraduate	1,506.1	155.4	
		4,626.9	708.8	

Catering & Hospitality Management	Taught PG	26.2	19.8	C
	Undergraduate	2,280.2	227.7	
Business & Administrative Studies	Taught PG	1,015.4	367.6	D
	Undergraduate	12,825.0	1,678.5	
Social Sciences	Taught PG	662.8	162.5	D
	Undergraduate	10,034.3	1,187.6	
Humanities, Languages & Mass Communication	Taught PG	337.7	201.6	D
	Undergraduate	13,108.3	1,418.9	
Art, Design & Performing Arts	Taught PG	103.8	57.2	C
	Undergraduate	4,175.7	469.2	
Conservatoire Music	Taught PG	55.5	3.5	A
	Undergraduate	220.0	-4.0	

Scottish equivalent to English price groups excl. Education & PGR						
	Nos.	% total	fees- only	% total	total	% total
A	3,646	4%	53	1%	3,700	3%
B	33,875	35%	2,253	21%	36,127	33%
C	22,487	23%	3,279	31%	25,767	24%
D	37,984	39%	5,017	47%	43,000	40%
Total	97,991	100%	10,602	100%	108,593	100%

Scottish/English subject mix

	<i>nos.</i>	<i>%</i>		<i>per FTE</i>
<i>English total student numbers</i>	870,259			
Standard resource			3,881,053,986	
T grants			302,406,327	
<i>Total resource T</i>			4,183,460,313	
Resource per head (T/ nos.)				£4,807
Scottish subject mix T				
A		3%		
B		33%		
C		24%		
D		40%		
English prices including grants				
A			£14,156	
B			£6,300	
C			£4,772	
D			£3,202	
English nos. in Scottish subject mix and English prices $(A \% \times price) + (B \% \times price) + (C \% \times price) + (D \% \times price)$			4,332,506,642	£4,978
Compared to standard resource incl. grants			4,183,460,313	£4,807
Subject mix variance	per head overall	3.6% 3.6%	149,046,329	£171