

DAVID WILLETTS



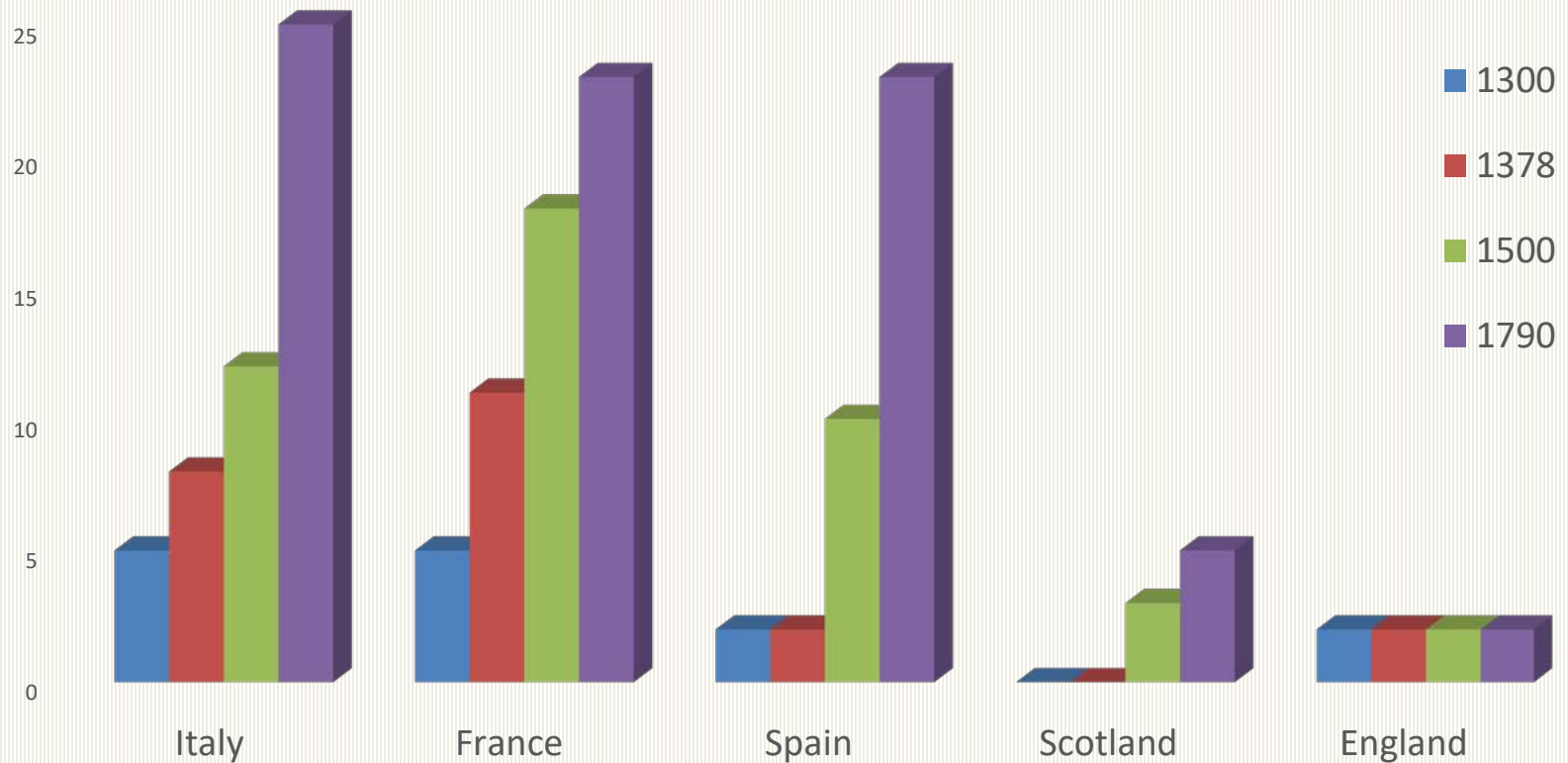
A UNIVERSITY
EDUCATION

February 2018



First there was Oxford and then
Cambridge

Number of universities in European Countries (1300-1790)





Why not have more universities?

“ Why universities and colleges should only be at Oxford and Cambridge I know no reason. It would be more advantageous to the good of all the people, to have Universities or Colleges, one at least in every great town or city in the nation as in London, York, Bristow, Exceter, Norwich and the like; and for the State to allow to these Colledges an honest and competent maintenance for some godly and learned men to teach the Tongues and Arts, under a due reformation.”

William Dell, Puritan master of Caius College, Cambridge speaking to the Westminster Assembly of Divines. 1643

What is excellence and what is producer power?



“The privileges of graduates in arts, in law, physick and divinity, when they can be obtained only by residing a certain number of years in certain universities, necessarily force a certain number of students to such universities, independent of the merit or reputation of the teachers.”

Adam Smith

Government Legislation on Universities: A case study



- 1854 The Oxford University Act
- 1856 The Cambridge University Act
- 1857 Oxford University Act 1857
- Universities of Oxford and Cambridge Act 1859
- Oxford University Act 1860
- Oxford University Act 1862
- Oxford University Vinerian Foundation Act 1865
- Universities Tests Act 1871
- 1877 Universities of Oxford and Cambridge Act
- 1880 Universities of Oxford and Cambridge (Limited Tenures) Act



Challenging the Edusceptics – the benefits of higher education

Individual non-economic benefits	Individual economic benefits
<ul style="list-style-type: none">• less likely to smoke, to drink excessively, to be obese;• better general health;• longer life expectancy;• more likely to engage in preventative care;• better mental health;• greater life satisfaction.	<ul style="list-style-type: none">• higher earnings;• less exposure to unemployment;• increased employability and skills development.
<ul style="list-style-type: none">• lower propensity to commit non-violent crime;• greater propensity to vote;• to volunteer;• to trust and tolerate others;• more dynamic cities.	<ul style="list-style-type: none">• more tax receipts;• increased exporting;• improved productivity.
Wider non-economic benefits	Wider economic benefits



How to pay for it?



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Median Wages: post-graduates, graduates, and non-graduates 2016



Aged 16-64	Median salary
Non-graduates	£22,500
Graduates	£32,000
Postgraduates	£38,000
Aged 21-30	Median salary
Non-graduates	£19,000
Graduates	£25,000
Postgraduates	£29,000



Marx was right.

“If...higher education institutions are also “free”, that only means in fact defraying the cost of education of the bourgeoisie from the general tax receipts.”

Karl Marx, Critique of the Gotha Programme
1875.



So was Robbins

- "I have little doubt that, as time goes on and the advantages of higher education are more generally perceived, and the burdens of financing its expansion are more severely felt, there may easily come a change in attitudes such that the equitable arguments for a considerable replacement of grants by loans will become practically relevant."



Four reasons for the current system

- The Principle – it is progressive
- The Economics – investing in human capital
- The Challenge – tackled under-funding of higher education and cutting public spending
- The Opportunity – End of number controls

“Why don’t we have price competition?”



- Income contingent repayment
- Competition for student numbers is a powerful incentive
- No good criterion for price differentiation



Ranking universities (1 of 2)

University of Oxford	University of Leeds
University of Cambridge	University of Birmingham
University of Durham	University of Southampton
University of St Andrews	Cardiff University
University of Bristol	University of East Anglia
University of Exeter	University of Liverpool
Imperial College	University of Strathclyde
University of Edinburgh	Heriot-Watt University
University of Warwick	King's College London
University of York	Oxford Brookes University
University of Sheffield	University of Surrey



Ranking universities (2 of 2)

University of Dundee	Edge Hill University
Bournemouth University	University of Salford
University of Kent	Brunel University London
University of Portsmouth	Teesside University
Nottingham Trent University	University of Huddersfield
University of Hull	University of Bedfordshire
University of Brighton	London South Bank University
University of Worcester	London Metropolitan University
Queen Mary University of London	University of East London
University of Lincoln	University of Wolverhampton
University of Derby	University of Bradford

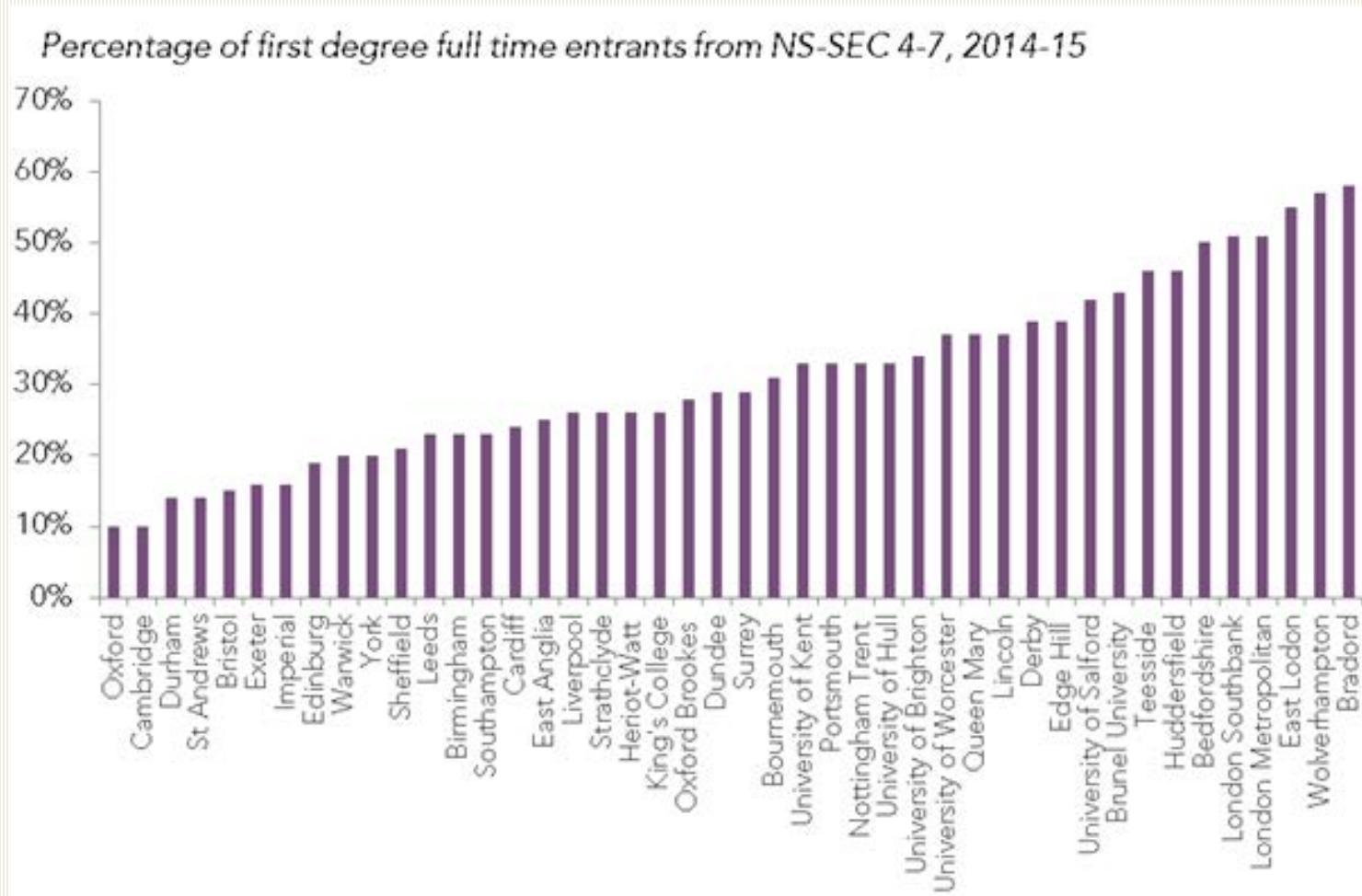


A clue to the rankings



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Percentage of first degree full time entrants from NS-SEC 4-7, 2014-15



“Good universities should charge more.”



But what makes a university “good”?

Graduates earn more because of

- Social background of parents
- Prior attainment of students
- Geographical location

Move up rankings also because of

- Research Excellence

“Students on high paying courses should pay more”



- Law, Economics and Management
- Medicine and STEM
- Arts and Humanities



Some bad ideas to change this system

- Differential fees – on what basis?
- Cut fees and cut resource
- A graduate tax – back to public spending
- Raise repayment threshold – is this the problem?
- Reallocate the “spending” to non-HE



Some better ideas to improve it

A regular five year review

- Maintenance grant - more cash for students
- More funding for part time students
- A pupil premium for disadvantaged students
- More funding for high cost courses – STEM
- The interest rate?



Innovation: The British Problem

- “many of our industries have since the outbreak of war suffered through our inability to produce at home certain articles and materials required in trade processes, the manufacture of which has become localised abroad, and particularly in Germany, because science there has been more thoroughly and effectively applied to the solution of scientific problems bearing on trade and industry...A great part of all research will necessarily be done in Universities and Colleges which are already aided by the State...” *Scheme for the organisation and development of scientific and industrial research* Cd 8005, July 1915. Paragraphs 1 and 5



Dual funding

- Low trust transactional Research Council funding (£2.7b)
- High trust patient substitute for endowment from HEFCE (£1.6b)
- But a gap – no high trust funding outside universities.



Types of R&D as % of GDP

	United Kingdom	France	Germany	United States
Total Gross Expenditure on R&D (GERD)	1.7	2.26	2.84	2.74
Business Sector R&D (BERD)	1.1	1.46	1.93	1.94
Higher Education R&D (HERD)	0.44	0.46	0.49	0.39
Government R&D (GovERD)	0.13	0.3	0.42	0.31



HE R&D % of Gross R&D

COUNTRY	HERD%GERD
China (People's Republic of)	6.9
Korea	9.1
Japan	12.6
United States	14.2
Germany	17.3
France	20.6
Finland	22.9
United Kingdom	26.1
Sweden	29.0
Norway	31.1
Denmark	33.2



The British Model

High on autonomy

Low on application

Good for the university rankings

Bad for Innovation



Future Challenges

- Where: Brexit & Globalisation
- How: Technology
- What: The problems of specialisation



Where: Brexit & Globalisation

- Student flows :post-study work and the MAC opportunity
- Taking fee loans abroad
- Staff flows
- Horizon 2020 and after
- A campus in the EU?



Education Technology today



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Education Technology tomorrow

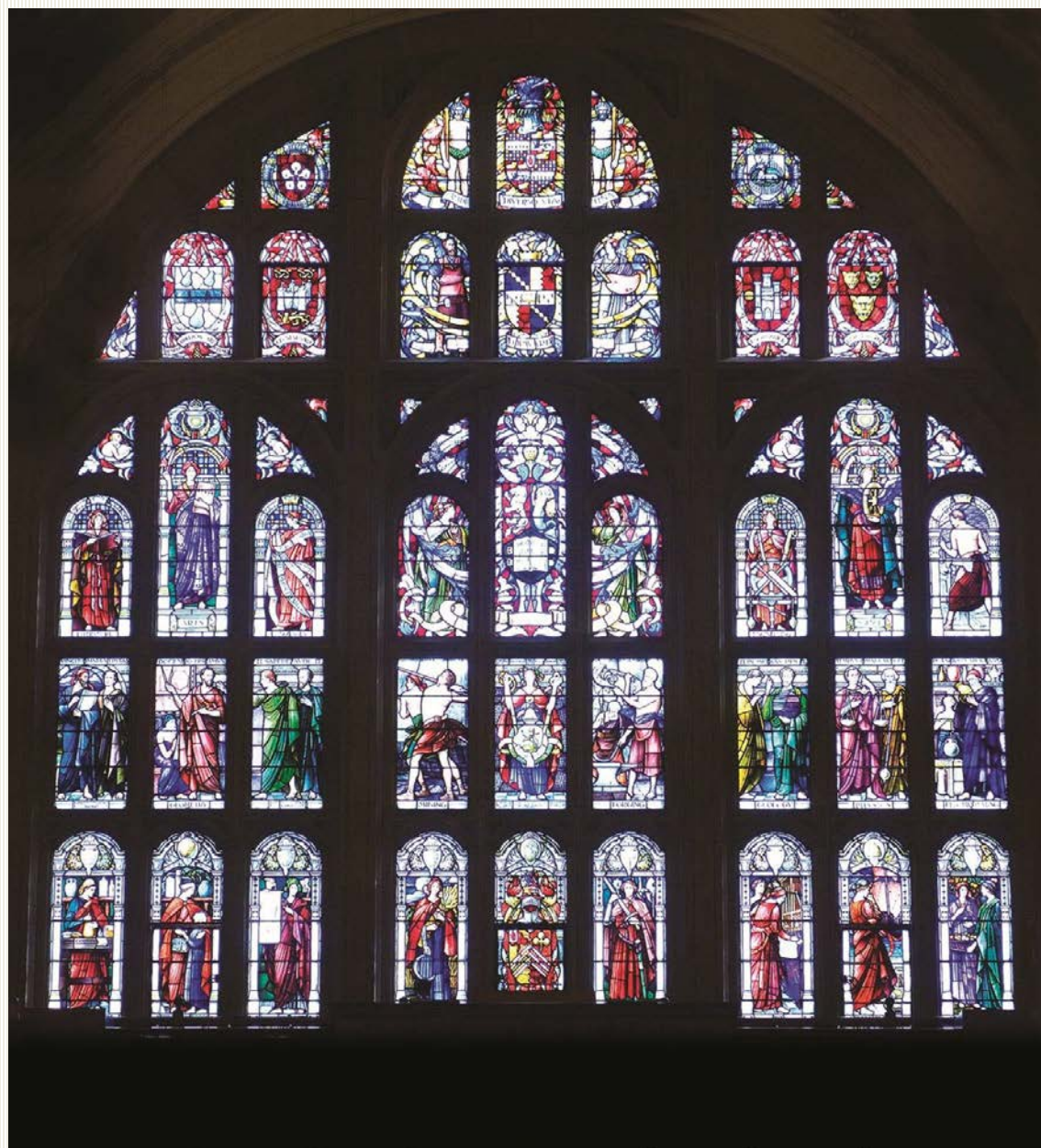
- Disintermediated or disintermediator?
- MOOCS v SPOCs. The 2U model for masters
- Data Analytics – No back row



What: A broader education

Percentages of girls and boys with GCSE A* doing that subject at A Level

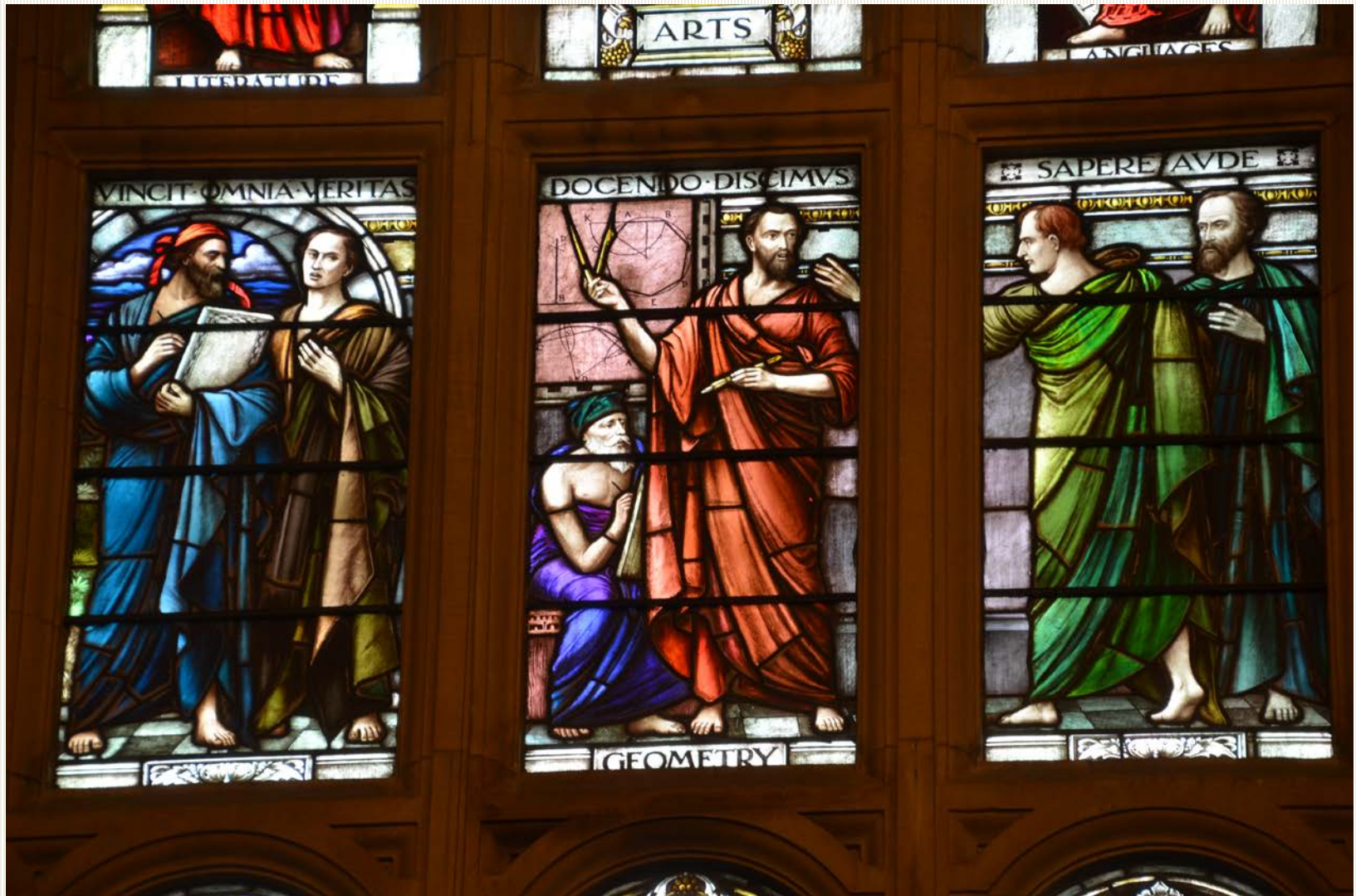
	Girls	Boys
Physics	25%	52%
Biology	56%	41%
Maths	67%	80%



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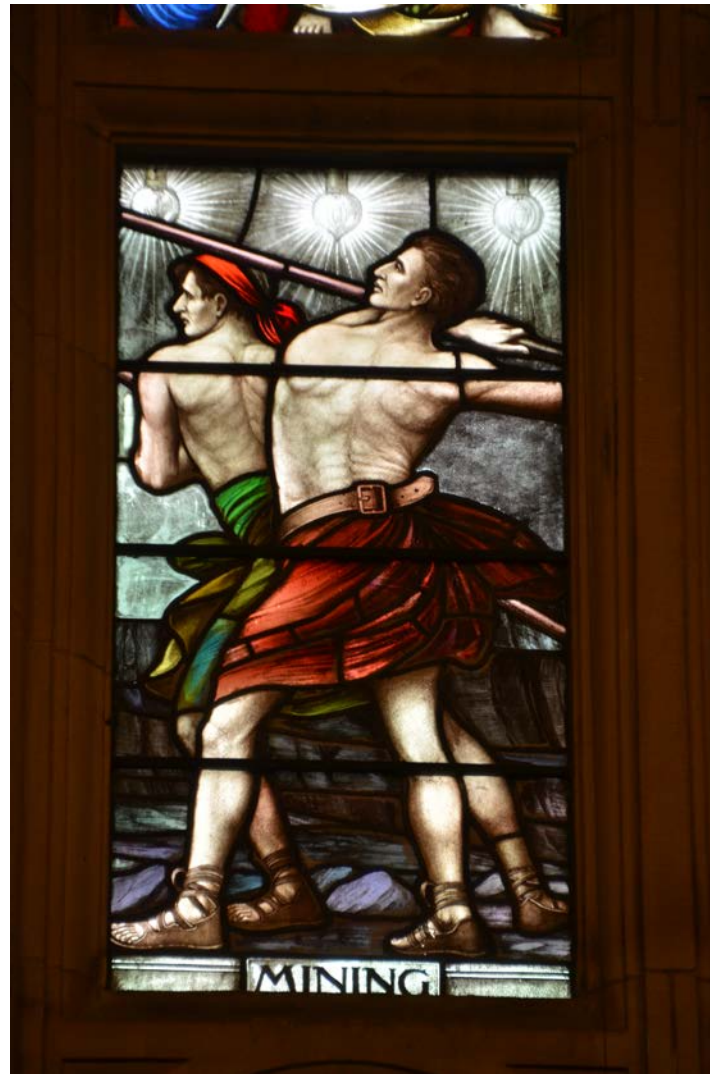
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