

Using data to establish a baseline and track progress

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Inclusion and Diversity at the Royal Society of Chemistry

- Diversity Specialist – Andrea Banham
 - Inclusion and Diversity Committee:
 - Chaired by Prof. Lesley Yellowlees
 - 8 members who represent the diversity within our community
 - The purpose of this committee is to promote inclusivity and equality of opportunity and ensure we make significant progress in this area.
 - Reports to our Membership and Qualifications Board
- 




Inclusion and diversity data

There are three big questions often surrounding data (not just on inclusion and diversity) at the Royal Society of Chemistry

- What data is readily available?
 - What data is available but we do not have access to?
 - Where are the gaps?
- 



Data Audit

- To identify what data the RSC has access to in terms of diversity of the chemical sciences
 - For this project:
 - Identification of data already collected/obtained by RSC
 - Identification of possible sources of data not already used
 - Gap analysis
- 

RSC Business Intelligence (BI) Data Resources

Master**Vision**

Internal



Powerful bus




Subscription databases



THOMSON REUTERS



Journal Citation Reports®



BI Data Resources



LinkedIn

Social media



CHEMINFO Indiana University
chemical information sources



Publicly available data

EPSRC Funding bodies

Engineering and Physical Sciences Research Council



WIPO
WORLD INTELLECTUAL PROPERTY ORGANIZATION



BBSRC
20 Years of Pioneering
Great British Bioscience



Free data sources



General worldwide country statistics including education and scientific community

The logo for UCAS, with the letters "UCAS" in a bold, sans-serif font. The letter "A" is red, while the others are black.

Number of Applicant/Accepts by subjects
Applicants by age, region, gender, disability



UK labour force statistics, population, education



General UK population statistics



Similar to UNESCO but EU specific




Llywodraeth Cymru
Welsh Government

Governmental data sets including pupil numbers/school information




Internal data sources


The RSC holds a large amount of data in various databases which may help with benchmarking and monitoring

- Membership
 - Publishing
 - Sales
 - Events
- 



Making use of the data

- A number of diversity benchmarking and monitoring projects underway/completed
 - Widening participation model
 - Higher education data dashboards
 - Targeting activities
- 



To what extent do the demographic characteristics of the UK chemical sciences undergraduate population not match those of the wider UK population of that age?

Data sources used:

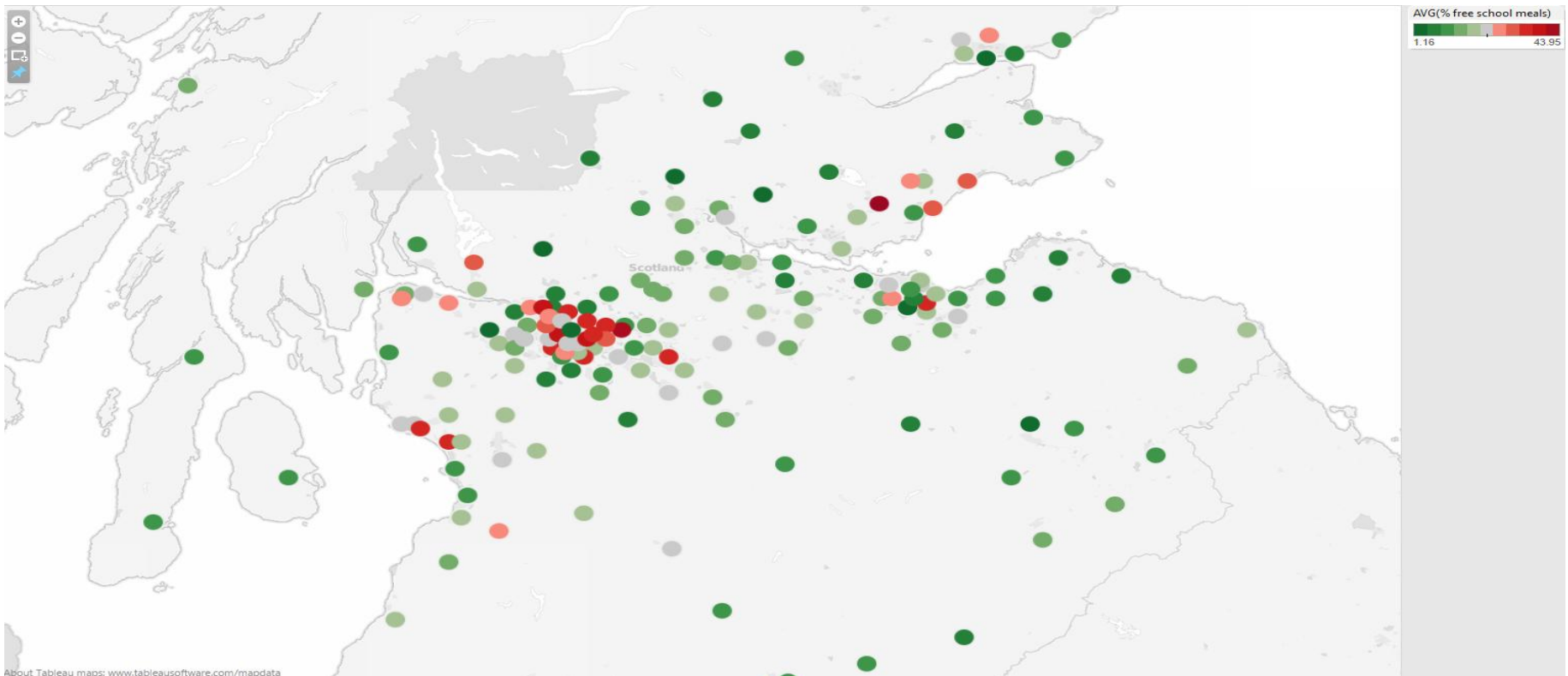
- Census 2011
- ONS labour force survey
- Departments of education
- Apprenticeship statistics
- Higher education general population
- **Chemistry higher education population**

	General population	Further Education	Undergraduate	Chemistry Undergrad	Apprenticeships	Employment	Unemployment	Postgraduate
Male	50.4%	47.2%	42.4%	58.7%	52.3%	50.8%	60.3%	49.8%
Female	49.6%	52.8%	57.6%	41.3%	47.7%	49.2%	39.6%	50.2%
Asian	9.6%	4.8%	8.6%	10.6%		5.4%	6.5%	8.5%
Black	3.4%	2.6%	6.0%	3.7%		1.4%	4.4%	5.3%
Other including mixed race	4.0%	2.8%	3.9%	3.8%		1.3%	2.1%	3.7%
Unknown		0.7%	1.8%	1.4%	1.1%			4.3%
White	83.0%	89.1%	79.6%	80.5%	89.1%	91.9%	87.0%	78.1%
BME (Apprenticeships only)					9.3%			
Disability Recorded	8.7%		9.3%	6.9%	7.8%			7.9%
No disability recorded	91.3%		90.7%	93.1%	90.2%			92.1%
Unknown					1.4%			

Partnership schools

Data sources used:

- Internal data
- Departments of education school lists
- Departments of education pupil numbers
- Department of education free school meals statistics



Chemistry in higher education dashboards

▼ < Diversity by study Diversity by year Destination of leavers Regional Breakdown Founding year/ Russell Group Funding all sources BIS >



Diversity in chemistry higher education

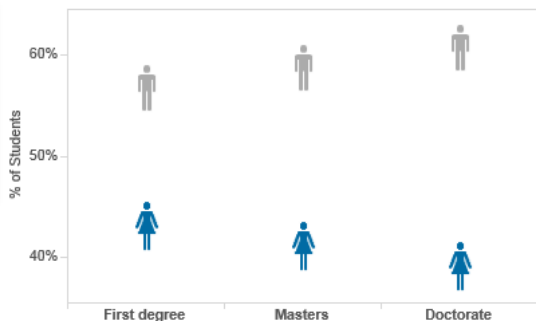
This dashboard shows the ethnicity, gender split and socioeconomic background of first year students studying chemistry at all levels between 2004/05 and 2011/12

This dashboard is interactive so please use the filters below to alter the graphs

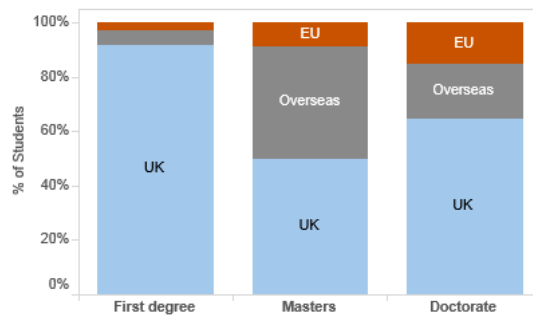
HESA data

Free for the public to access

Gender



Domicile



Academic year end

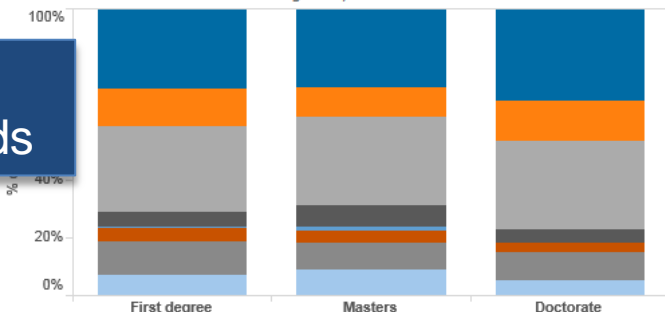
(Multiple values) ▼
 Domicile (All) ▼
 Gender (All) ▼
 Study level (All) ▼

Domicile
 EU
 Overseas
 UK

Users can manipulate the data

Socioeconomic background

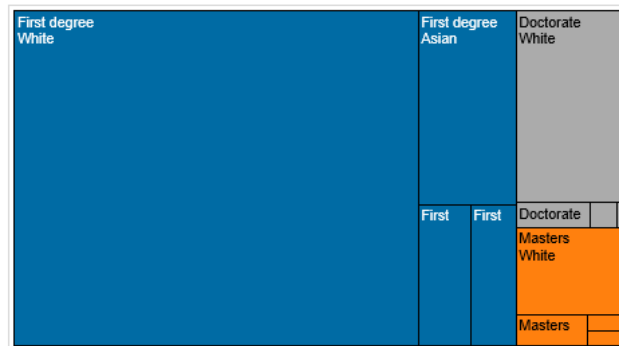
(68% Undergraduate students, 6.1% Masters students, 7.8% Doctorate students provided information on their socio economic background)



SocioEconomicBackground

Higher managerial & professional occupations Lower managerial & professional occupations Never worked & long-term unemployed Semi-routine occupations
 Intermediate occupations Lower supervisory & technical occupations Routine occupations Small employers & own account

Ethnicity of UK domiciled students



Source: HESA (<http://www.hesa.ac.uk/>) HESA cannot accept responsibility for any inferences or conclusions derived from the data by third parties

11 dashboards

Almost 4,000 views



Challenges?

- Finding data can be difficult
- Cost of data
- Not all data reported
- Identifying subject specific information
- Combining data sets