
Professor Sir Ian Diamond | National Statistician

Alexander Stafford MP
House of Commons
London
SW1A 0AA

12 March 2020

Dear Mr Stafford,

As National Statistician and Chief Executive of the UK Statistics Authority, I am responding to your Parliamentary Questions asking for the number and proportion of female engineers employed in the energy sector (**27075**); the number of women employed in STEM roles in (a) Rother Valley, (b) Rotherham, and (c) South Yorkshire in the latest period for which data is available (**27079**); the number of women employed in engineering roles in (a) Rother Valley, (b) Rotherham, and (c) South Yorkshire in the latest period for which data is available (**27080**); and the number of women employed in energy sector roles in (a) Rother Valley, (b) Rotherham, and (c) South Yorkshire in the latest period for which data is available (**27081**).

Estimates of the number of women in employment by industry and occupation are available from the Annual Population Survey (APS), which is a survey of people resident in households. Industry of employment is classified in line with the UK Standard Industrial Classification 2007 (SIC 2007)¹, while occupation is classified in line with the UK Standard Occupational Classification 2010 (SOC 2010)², based on information given during interview.

For the purposes of these questions we have interpreted the energy sector as Section D of SIC 2007 – electricity, gas, steam and air conditioning supply. We have interpreted engineering roles as minor group 212 of SOC 2010 – engineering professionals. There is no single agreed definition of STEM occupations. For the purposes of this question we have used the grouping of SOC codes given in Appendix 1, consistent with previous requests. The response includes both core STEM and related STEM codes.

Unfortunately, due to small sample sizes, none of the requested estimates are available for Rother Valley. In addition, estimates for the number of women in engineering roles and women employed in the energy sector are not available for Rotherham or South Yorkshire, but it has been possible to provide estimates for Yorkshire and The Humber.

Table 1 gives estimates of the number and proportion of female engineers employed in the energy sector; the number of women employed in STEM roles in Rotherham and South Yorkshire; the number of female engineering professionals in Yorkshire and The Humber; and the number of females in the energy sector. Estimates are provided from the APS for the twelve month period October 2018 to September 2019, the latest period available.

As with any sample survey the estimates are subject to sampling variability, with the quality of estimates indicated in the table through shading.

¹<https://www.ons.gov.uk/methodology/classificationsandstandards/ukstandardindustrialclassificationofeconomicactivities/uksic2007>

²<https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassification/soc2010>

Table 1: Estimates of women in employment in engineering and STEM roles in the energy and wider industries, October 2018 to September 2019³

UK: Female Engineering Professionals in the Electricity, Gas, Steam and Air Conditioning Industry	Level (000's)	1
	Rate (%)	5.8
Rotherham: Females in STEM roles	Level (000's)	15
South Yorkshire: Females in STEM roles	Level (000's)	91
Yorkshire and The Humber: Female Engineering Professionals	Level (000's)	4
Yorkshire and The Humber: Females in the Electricity, Gas, Steam and Air Conditioning Industry	Level (000's)	5

Source: APS, Office for National Statistics

Yours sincerely,



Professor Sir Ian Diamond

³ Quality indicator

Shaded estimates are based on a small sample size. This may result in less precise estimates, which should be used with caution.

Unshaded estimates are based on a larger sample size. This is likely to result in estimates of higher precision, although they will still be subject to some sampling variability.

Appendix 1: STEM SOC Codes

Core STEM SOC codes

112	Production Managers and Directors
113	Functional Managers and Directors
115	Financial Institution Managers and Directors
118	Health and Social Services Managers and Directors
121	Managers and Proprietors in Agriculture Related Services
124	Managers and Proprietors in Health and Care Services
211	Natural and Social Science Professionals
212	Engineering Professionals
213	Information Technology and Telecommunications Professionals
214	Conservation and Environment Professionals
215	Research and Development Managers
221	Health Professionals
222	Therapy Professionals
223	Nursing and Midwifery Professionals
231	Teaching and Educational Professionals
242	Business, Research and Administrative Professionals
243	Architects, Town Planners and Surveyors
246	Quality and Regulatory Professionals
311	Science, Engineering and Production Technicians
312	Draughtspersons and Related Architectural Technicians
313	Information Technology Technicians
321	Health Associate Professionals
351	Transport Associate Professionals
353	Business, Finance and Related Associate Professionals
355	Conservation and Environmental associate professionals
524	Electrical and Electronic Trades
531	Construction and Building Trades

Related STEM SOC codes

111	Chief Executives and Senior Officials
342	Design Occupations
521	Metal Forming, Welding and Related Trades
522	Metal Machining, Fitting and Instrument Making Trades
525	Skilled Metal, Electrical and Electronic Trades Supervisors
533	Construction and Building Trades Supervisors
