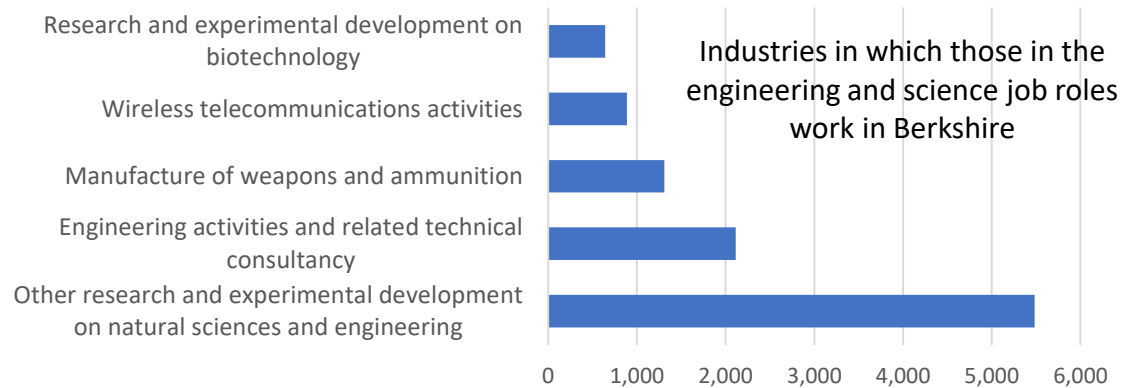


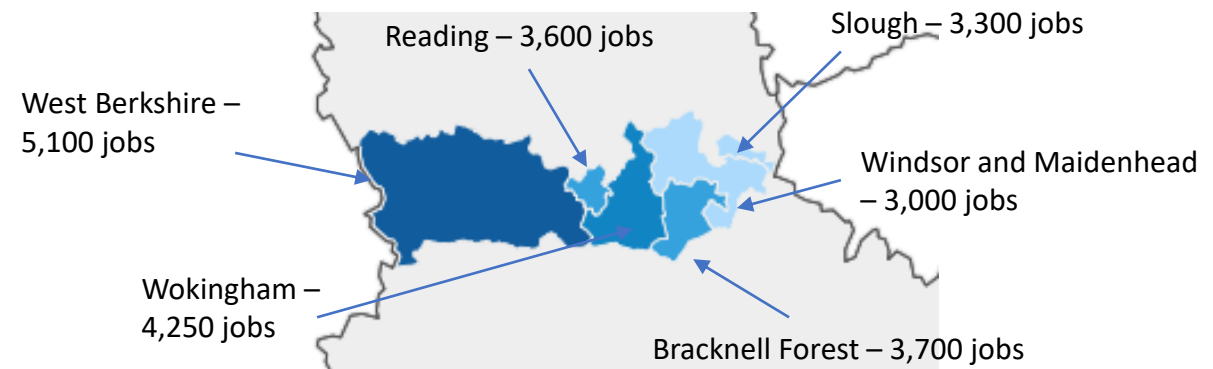
Engineering and Science Job Family

The nature of the Berkshire economy means there is high demand for engineering, maths and science skills. Engineering firms are more concentrated to the West of the sub-region and life sciences firms in central and Eastern Berkshire.

As is the case nationally, employers often cite the lack of skilled engineers as a barrier to growth, whilst colleges find it difficult to recruit engineering lecturers.



Employees	22,800 (5% of all employee jobs in TVB)
Self-employment	1,300
Employee jobs growth projection (2016-2024)	9% (2,000 additional jobs)
Proportion of workforce over the age of 55 (TVB figure)	16% (medium)
Automation potential (national figure)	26% (medium) (professional, scientific and technical activities)
Male:Female ratio (TVB figure)	74:26



Workforce Challenge: Shortfall in new entrants

The key to addressing the future demand for engineers is encouraging young people to study STEM subjects and pursue engineering-related qualifications.

Workforce Challenge: Diversity

84% of those undertaking STEM Apprenticeships are male. There is a continuing need to ensure that stereotypical views of what an engineer or scientist 'looks like' does not deter individuals from studying STEM subjects and / or pursuing STEM careers.

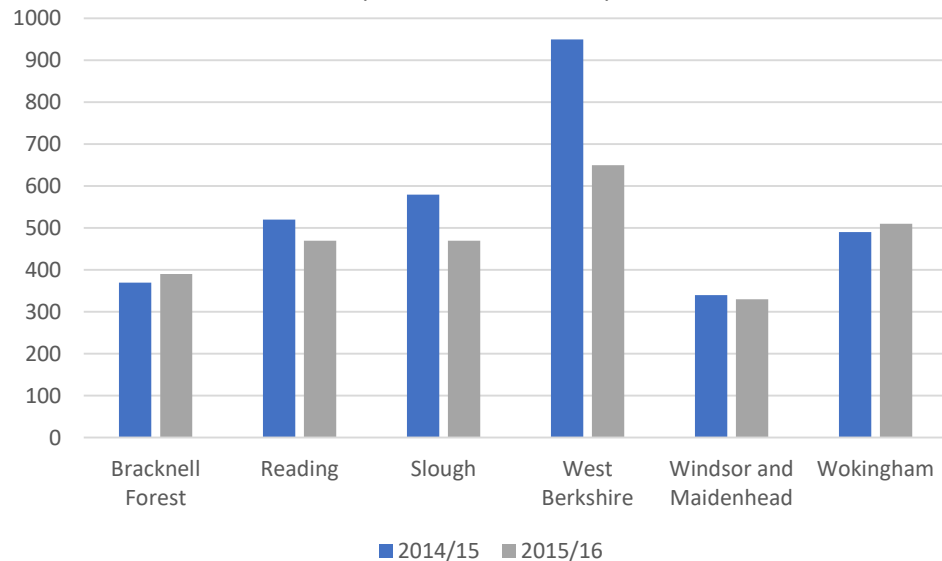
Workforce Challenge: Teacher shortage

In 2017/18 there was an estimated shortfall of 2,200 STEM trainee teachers against the DfE teacher supply model target in England.

Engineering and Science Job Family



Engineering, manufacturing and science Apprenticeship starts (Berkshire learners)



Local institutions	FE and HE engineering & science courses (examples)
University of Reading, Reading	Degree and Masters courses at the School of Biological Sciences, Department of Chemistry, Department of Mathematics and Statistics, Department of Meteorology, Reading School of Pharmacy.
Newbury College, Newbury	Apprenticeships in Electrical/Electronic Engineering L3 and L4, Apprenticeship in Mechanical Engineering L3 and L4, Degree Apprenticeship in Engineering, Performing Engineering Operations L2, Electrical and Electronic Engineering BTEC L5 HND Diploma, Mechanical Engineering L5 HND Diploma, Electrical Installation L2 and L3 Award/Diploma, Engineering L2 Diploma, Installing Electrotechnical Systems and Equipment L3 Diploma, Technical Support Engineering L3
Reading College, Reading	Electrical and Electronic Engineering HNC and HND, Electrical/Electronic Engineering BTEC L2 and L3 Award /Diploma and Extended Diploma, Mechanical Engineering BTEC L3 Diploma and HNC, Applied Science BTEC L3 Extended Diploma
Windsor Forest College Group, Langley, Windsor and Egham	10 electrical and electronic qualifications, 11 precision engineering qualifications and 3 welding qualifications
Berkshire College of Agriculture - Maidenhead	BTEC L3 Extended Diploma in Applied Science,
Bracknell and Wokingham College	12 electrical installation qualifications



National skills shortages (Tier 2 Shortage Occupation List)

Geophysicist, geotechnical engineer and tunnelling engineer (construction) mechanical engineer in the oil and gas industry, power system engineer, control engineer and protection engineer in the electricity transmission and distribution industry, electronics engineers in the railway industry, chemical engineers