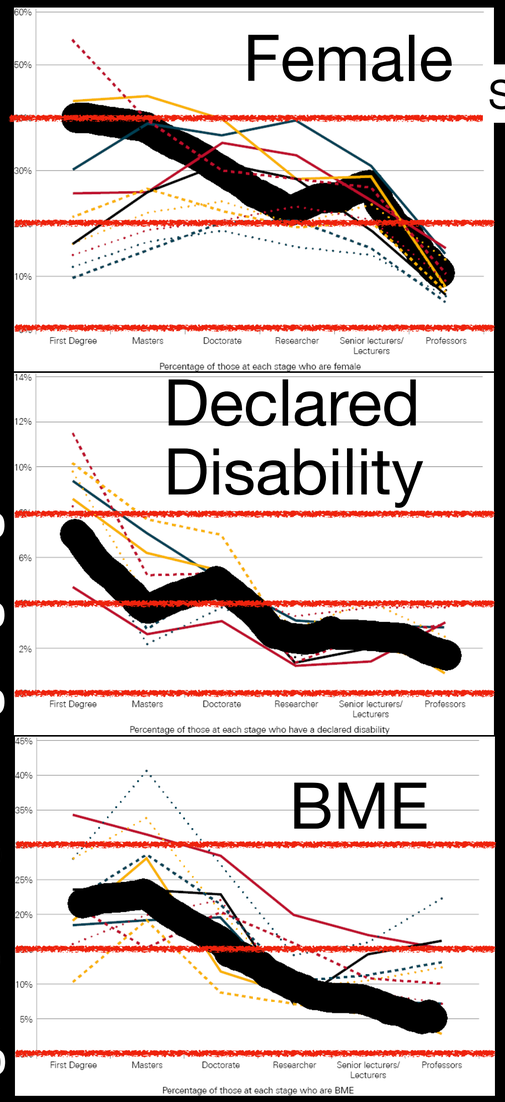


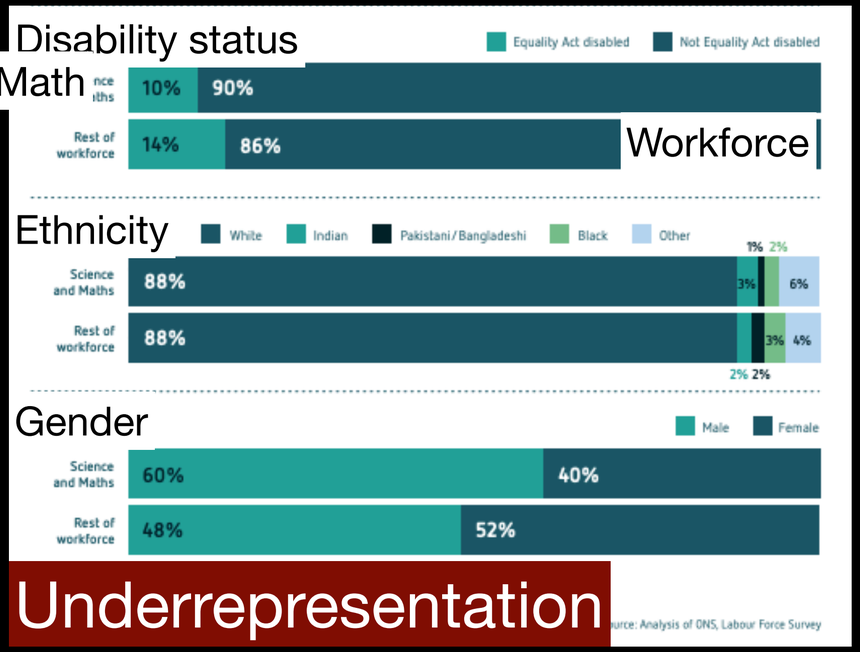
Career stage (first degree -> prof)

Differential Attrition

"A picture of the UK Scientific Workforce"
(The Royal Society)

Newcastle Athena SWAN 2020

Academic and Research Staff	Students	School of Mathematics, Statistics and Physics		
		79 (20%W)	15 (60%W)	963 (33%W)



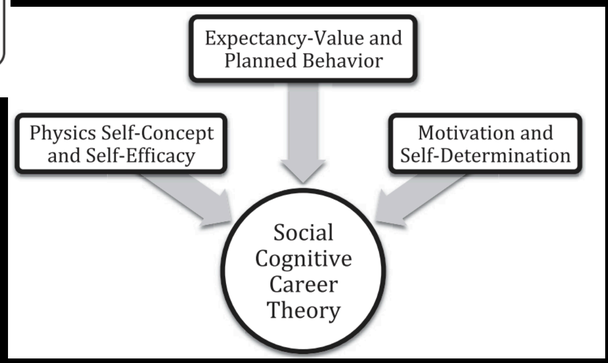
Underrepresentation

"The State of the Sector: Diversity and representation in STEM industries in the UK"
(APPG on diversity and inclusion in STEM)

Physics self-concept and self-efficacy	• Pervasive feelings of inadequacy • Lack of social support • Communication anxiety
Expectancy-value and planned behavior	• Negative stereotypes of women • Undesirable classroom environments • Lack of female role models
Motivation and self-determination	• Intrinsic appeal of physics • Social relevance of physics • Lack of encouragement

[Kelly 2016 PRPER 12 020116]

Factors contributing to retention



Education research tidbits

"The theoretical framework focuses on **physics identity** and includes the dimensions of **student performance, competence, recognition by others, and interest**."

[Hazari et al 2010 JRST 47 8]

"However, **discussions about women's underrepresentation have a significant positive effect**."

[Hazari et al 2013 PRST-PER 9 020115]

"**Values affirmation reduced the male-female performance and learning difference substantially and elevated women's modal grades from the C to B range**."

[Miyake et al 2010 Science 330]

Class ideas

Science Identity

Teaching sociological issues

Tie-ins to "real life"

Values Affirmation

Explicit Welcome statements