Education, Skills and the Economy Sub-Committee

Careers advice, information and guidance inquiry

Response by the Wellcome Trust

20 January 2016

Key points

- Awareness of different careers should begin in primary school and continue to grow throughout education. Careers advice and guidance must counter stereotyping, helping to increase the accessibility and attractiveness of vital subjects like science and maths.

- STEM subject teachers should have access to regular professional development, giving them up-to-date knowledge of careers and progression routes. This is particularly important as many students learn about careers from their teachers.

- School governors have a unique opportunity to go beyond their statutory duty and connect schools with employers and the local community. This should help to broaden students' perspective on future careers and the opportunities available to them.

Introduction

1. The Wellcome Trust is a global charitable foundation dedicated to improving health. We have a long standing commitment to making inspirational, high-quality science education available to all young people, spending around £9 million each year towards this aspiration.

2. In this response, we focus on our expertise in STEM (science, technology, engineering and maths) education using data from the Wellcome Trust Monitor (the Monitor). This is a UK-wide representative survey of 14- to 18-year-olds' views about science education and careers conducted in 2009 and 2012.

3. In 2012, we responded to an Education Select Committee inquiry on careers guidance for young people and our response is available online. Although there have been improvements in the statutory guidance since then, including starting formal careers advice in year 8 and continuing to year 13, more work still needs to be done and many of our points from 2012 remain relevant.

Submission

4. Studying science and maths opens doors to a range of career opportunities; the skills gained through these subjects are applicable, and often critical, to many areas of learning and employment. A good science education will benefit young people beyond the classroom, whatever career route they take. Research also shows that

students begin to make decisions about future careers and aspirations at primary school, and can already feel that science is "not for them"[1] at this stage. For this reason, information about the variety of careers and progression routes available in STEM-related subjects should start to be conveyed at primary level, and continue throughout secondary school and further education.

5. Although young people gain careers advice most frequently from their family (67%), subject teachers are also a common source of information. The Monitor reports that 49% of young people said they received careers advice from teachers, yet only 17% thought this source was among the most useful. Teachers must have access to high-quality continuing professional development (CPD) that includes accurate information on careers, such as the courses offered at the STEM Learning Centre. Work placements, like the Teacher Industrial Placement Scheme and Teacher Academic Placement Scheme, can also improve teachers' knowledge of careers in STEM.

6. Gaps in the STEM workforce are widely reported. The Confederation of British Industry (CBI) says that nearly 40% of organisations looking for employees with STEM skills have had difficulties recruiting[2]. It is suggested that the failure to produce a strong pool of STEM talent, through university or vocational routes, impedes the UK's economic prosperity. To help address this, more young people must be equipped with the knowledge to make informed decisions regarding their education and future careers, alongside a high-quality, inspiring science education.

7. The Monitor found that a large majority (82%) of young people consider science to be a good area of future employment. Reasons include pay, the wide variety of different jobs available, and the ability to make interesting discoveries. However, most young people report that they know little or nothing about scientific careers (63%), or STEM careers more broadly (55%).

8. When asked about their views on a future scientific career, only 14% of young people say they are very interested in this route, with a further 27% reporting that they are fairly interested. When this is broken down into specific STEM fields, it is clear that there are particular problems in certain areas. For example, only 9% of young people are interested in engineering, and 13% in chemistry, whereas 24% are interested in a career in medicine. There are also large gender differences: 14% of young men are interested in engineering, compared with 3% of young women; while 16% of women are interested in a career as a nurse or midwife, contrasted with no interest from men.

9. Work experience can be a valuable opportunity for young people to gain knowledge and understanding about the world of work, and develop future aspirations. However, of the 61% of young people who have completed work experience, only 28% say that this was in a STEM field. On top of this, fewer young women than young men say that they have experienced STEM-related placements (21% compared with 35%). Young women are also more likely to hold the perception that science is not a field for "people like me".

10. Of the small proportion (13%) of young people who do not think science is a good area of employment, 41% think there are only a limited number of jobs available. The

[1] ASPIRES, Kings College London, 2013
[2] Learning to grow: what employers need from education and skills, CBI, 2012.

same proportion thinks that the field requires too many qualifications, and 29% say it is too competitive. These negative stereotypes must be challenged at an early age to stop young people being deterred from pursuing career routes in science. It is essential that careers advice and guidance is unbiased, and aspires to remove perceived barriers and stereotypes from professions.

11. School governors have a statutory duty to ensure that careers guidance is impartial and includes information on a full range of options, and support the headteacher to implement the school's careers guidance strategy. They also have a unique opportunity to connect schools with employers and the local community, and should be encouraged to use their own networks to broaden the offer to students in their school. We have produced resources to support governors which include ideas and evidence on careers advice and guidance, and may be a useful resource: the Framework for Governance and Questions for Governors.