

<b>Institution:</b> University of Surrey		
<b>Unit of Assessment:</b> 16 Economics and Econometrics		
<b>Title of case study:</b> Improving the skills of young people in post-16 vocational education: building the evidence base and generating action		
<b>Period when the underpinning research was undertaken:</b> 2015 – 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Sandra McNally	Professor of Economics	April 2012 - present
<b>Period when the claimed impact occurred:</b> 2016 – 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b> (indicative maximum 100 words)		
<p>McNally's work has improved the evidence base on effective policy for the 50% of young people who do not go to university; besides informing and shaping policy, this work also led to practical action to support young people who need to resit GCSE English. As Director of the Centre for Vocational Education Research (CVER), and through her engagement with national policy makers and stakeholders, McNally has used novel administrative data to highlight the benefits of apprenticeships, the importance of the transition to post-compulsory education, and the complexity of post-16 trajectories. Improving the technical and vocational skills of 'the other half' is key to increasing UK productivity and social mobility. This long-standing issue has risen in prominence following Brexit and the Covid-19 pandemic.</p>		
<b>2. Underpinning research</b> (indicative maximum 500 words)		
<p>Sandra McNally has been working on the economics of education for nearly twenty years. Her work has focused on ways to improve the education of those with low basic skills. From March 2015 - April 2020 McNally led CVER, a research centre that brought together researchers from different institutions funded by a £5m grant from the Department for Education (DfE). To fulfil this commitment, she was partially seconded to the Centre for Economic Performance at LSE, as this institution led the Centre.</p> <p>McNally's work on post-16 vocational education has been important because it is widely accepted that the UK performs comparatively weakly in this area. There is a relatively high number of people with poor basic skills and a low number of people with high-level vocational skills in the UK. Through the close relationship with DfE, McNally has been able to access administrative data combining school records with records from further and higher education, together with earnings and employment. These data offer a wealth of opportunities for both detailed descriptive work and for applying quasi-experimental research designs to identify causal mechanisms. By addressing policy-relevant questions with the use of these high-quality data, McNally has been able to offer compelling insights on the challenges facing young people who do not take the academic route at age 16. McNally's research on this theme has included contributions on apprenticeships, transitions to post-compulsory education, and post-16 trajectories.</p>		
<b>i. Apprenticeships</b>		
<p>For some years, the government has been aiming to increase apprenticeship numbers, and although the increase has been strong for adults, it has been more modest for young people. McNally and colleagues investigate the labour market return to starting an apprenticeship for young people in England. They use linked administrative data [R1, R2] and apply an Instrumental Variable technique to evaluate the causal effect of starting an apprenticeship on earnings [R2].</p>		

The latter uses cohort-to-cohort variation in the extent to which peers of young people (within the same year group and school) access apprenticeships. Although earnings returns are high on average, there is much variability across different sectors. For example, returns are very high in engineering and very low in child development (relative to a college-based course in the same subject and level). This gives rise to a huge gender pay gap amongst apprentices as men are more likely to enter more lucrative routes. McNally and colleagues emphasise the importance of addressing this through careers information and advice. Steering more young people (especially women) towards high return apprenticeships is likely to improve national productivity and reduce the gender wage gap.

### ii. Transitions to post-compulsory education

McNally and colleagues investigate the causal effect of just failing to pass an important exam threshold at the end of full-time compulsory education in England [R3]. Using especially detailed data on exam marks (enabled by the AQA awarding body), they investigate the consequences of obtaining a grade C in English GCSE by comparing students who just cross the grade boundary with those who just miss it. Just failing gives rise to a lower probability of entering a good track in upper-secondary education (whether vocational or academic) and of starting tertiary education. It also increases the probability of not being in education, training or employment at age 18. These results are driven by reduced opportunities to access higher quality courses and institutions. The magnitude of effects observed is surprisingly high in a context where all students are expected to remain in education beyond age 16.

### iii. Post-16 Trajectories

McNally and colleagues provide a careful descriptive analysis of the trajectories followed by young people within post-16 education and into the labour market [R5, R6]. This research is the first to use national administrative data in this way. One of the most striking issues exposed is the lack of progression for those pursuing low-level qualifications at age 17. This is related to the lack of clear pathways within further education and helps explain why paper C finds that missing out on English GCSE is so detrimental.

## 3. References to the research (indicative maximum of six references)

[R1] Cavaglia, C., **S. McNally**, and G. Ventura. (2017). Apprenticeships for Young People in England: Is there a Payoff? Centre for Vocational Education Research Discussion Paper 010. <http://cver.lse.ac.uk/textonly/cver/pubs/cverdp010.pdf> (downloaded 6,098 times to 31 December 2020)

[R2] Cavaglia, C., **S. McNally**, and G. Ventura. (2020). Do Apprenticeships Pay? Evidence for England. *Oxford Bulletin of Economics and Statistics*. Volume 82, Issue 5. Pp.1094-1134. October 2020. (available as a CVER DP in September 2018; downloaded 9,067 times to 31 December 2020). <https://doi.org/10.1111/obes.12363>

[R3] Machin, S., **S. McNally**, and J. Ruiz-Valenzuela. (2020). Entry Through the Narrow Door: The Costs of Just Failing High Stakes Exams. *Journal of Public Economics*. Volume 190. October 2020. (Available a CVER discussion paper in April 2018; downloaded 10,734 times to 31 December 2020) <https://doi.org/10.1016/j.jpubeco.2020.104224>

[R4] Hupkau, C., **S. McNally**, J. Ruiz-Valenzuela, and G. Ventura. (2017). Post-compulsory education in England: choices and implications. Centre for Vocational Education Research Discussion Paper 001. (downloaded 15,860 times to 31 December 2020), later published as **R5**.

[R5] Hupkau, C., **S. McNally**, J. Ruiz-Valenzuela, and G. Ventura. (2017). Post-compulsory education in England: choices and implications. *National Institute Economic Review*. No. 240. pp. R42-57. <https://doi.org/10.1177/002795011724000113>

[R6] Espinoza, H., S. Speckesser, I. Tahir, J. Britton, S. McNally and A. Vignoles (2020). Post-18 Education: Who is Taking Different Routes and How Much do they Earn? Centre for Vocational Education Research. Briefing Note 013. September 2020  
<https://cver.lse.ac.uk/textonly/cver/pubs/cverbrf013.pdf>

#### 4. Details of the impact (indicative maximum 750 words)

##### i. Promoting high returns apprenticeships

Research outputs R1 and R2 are used and quoted extensively in the Augar Review of Post-18 education (p.149), the annual 'State of the Nation' report of the Social Mobility Commission (p 76, 78), and in the Sutton Trust campaign for 'Better Apprenticeships' [S1, S2, S3]. These organisations are using the findings to show how apprenticeships can be a vehicle for social mobility (i.e., they lead to relatively better-paid jobs among a population that often do not have the pre-requisites for tertiary education). A letter from Gillian Keegan MP (the current Parliamentary Under-Secretary of State for Apprenticeship and Skills) states that CVER research on apprenticeships has "*been invaluable in supporting our reforms, ensuring a positive approach to widening participation in apprenticeship programmes*" [S4]. Lord Richard Layard has also used the findings to demonstrate the merits of apprenticeship in a debate in the House of Lords [S5]. McNally [R1, R2] concludes that high quality advice and guidance can help achieve increased social mobility and reduce the gender wage gap. Her findings and conclusions are referenced in the Augar review and feed into its recommendation that "*the government should use data on apprenticeship wages to provide accessible system wide information for learners with a potential interest in apprenticeships.*" (Augar Review. Recommendation 5.2) [S1] The Government White Paper (Skills for Jobs) states that it will implement this specific recommendation [S11]. Both the Augar Review and the Social Mobility Commission highlight findings about the varying returns to apprenticeship according to sector [S1, S2], with the former making particular note of the implications for gender inequality (footnote 31).

##### ii. Transitions to post-compulsory education

McNally's findings in Research output [R3] has influenced the thinking of policy makers and actions of practitioners.

McNally and colleagues presented their findings on the effect of passing exam thresholds to representatives of all the GCSE awarding bodies in autumn 2018. Tim Leunig was also present (expert adviser at the Department for Education). In a reference for a grant application for McNally's colleague to undertake subsequent work, he comments: "*this work was exemplary, and changed my thinking on the importance of thresholds*" [S6].

An example of a practical, concrete impact is in City & Islington College, where the paper was influential for reinforcing arguments in favour of two changes introduced in the academic year 2018-19:(1) moving most 16-18 year old students to taking GCSE courses rather than Functional Skills, and (2) piloting a new approach to November GCSE re-sits where all students on Level 3 courses are entered (previously some were selected on the basis of initial assessment in the first few weeks of term). Andy Forbes (principal of City & Islington College up to summer 2019) states: "*In both cases the thinking was that the importance of GCSE English for progress through the system is so high (as starkly illustrated by your research) that we need to remove all delays we can and enable students to achieve it as early as possible*" [S7].

Another such example of impact is from the founder of the charity 'Get Further', Sarah Waite. She writes: "*I just saw your great article on post-16 English and maths in TES (Times Educational Supplement). Your work on tracking students who just miss out on a grade C in GCSE English was actually one of the studies that inspired Get Further – the further education not-for-profit I lead. We match students in further and adult education to a top tutor and have designed a catch-up tuition programme, so that they can access extra support that would otherwise be out of reach*" [S8]. In other words, this programme helps students who need a second chance (having failed to

meet the Grade C threshold) - hopefully avoiding the very adverse effects identified in the research paper. In 2018, Get Further won the Teach First Innovation Award – a nationwide competition to find the next big ideas to tackle education inequality. Since then Get Further has launched pilot programmes for both Maths and English.

### iii. Improving understanding of the post-16 landscape

Through their pioneering quantitative analysis of big data, McNally and her colleagues at CVER have contributed to a better understanding of problems within post-16 education. This work has provided a much-needed basis for effective evidence-based policy, as reflected in a statement made by the Augar Review (p.137): *'The government has made some recent improvements (notably through the funding of the Centre for Vocational Education Research, on whose work we have drawn heavily).'* [S1].

This sentiment is also shared by Ministers. Gillian Keegan MP, the current Parliamentary Under Secretary of State for Apprenticeships and Skills, writes in her letter *'I am of course aware of the research undertaken by CVER and how fundamental this has been in underpinning and supporting this department's drive to reform technical education'* [S4].

The work by McNally and CVER being referred to above includes research on post-16 trajectories [R5]. This lays out, for the first time, the full complexity and weaknesses of the UK's vocational education system in systematic way with the use of administrative data. These papers have been presented widely to Government and national stakeholders and this work has become a reference point for characterising post-16 choices. Influential think tanks such as The Institute for Fiscal Studies and the Resolution Foundation have used this research when characterising progression routes for young people [S9, S10]. To properly understand the effects of future change (such as T-levels), the baseline needs to be properly established and this is what this work has done. More recent work that explores post-18 trajectories and considers returns to different forms of tertiary education [R6] is cited in the Skills for Jobs White Paper [S11].

In conclusion, McNally's work has helped build the evidence base on post-16 vocational education and has herself become a leading expert on these issues during discussions at Select Committees and at a high level in government (for example, to the Council of Economic Advisors at the Treasury in May 2018). The impact matters because for too long post-16 vocational education has been relatively neglected by policy makers (and even by academics), despite its importance for building a more productive economy and fairer society.

## 5. Sources to corroborate the impact (indicative maximum of 10 references)

[S1] Independent panel report to the Review of Post-18 Education and Funding (Augar Review. 2019). Page 137; 149; 159.

<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8577> (Also in PDF)

[S2] Social Mobility Commission. State of the Nation 2018-19: Social Mobility in Great Britain. Page 76, 78. <https://www.gov.uk/government/publications/social-mobility-in-great-britain-state-of-the-nation-2018-to-2019> (Also in PDF)

[S3] Sutton Trust campaign on 'Better Apprenticeships'. <https://www.suttontrust.com/better-apprenticeships-campaign/> (Also in PDF)

Note: The Sutton Trust co-funded research output [R1] with CVER.

[S4] Letter from Gillian Keegan MP. 17 March 2020. Under Secretary of State for Apprenticeships and Skills. (PDF)

[S5] Lord Richard Layard used our research on apprenticeships in a debate in the House of Lords: <https://hansard.parliament.uk/Lords/2019-07-04/debates/3C223FC2-A4A7-4E26-A8F4->

[D32A3CB8BEF3/Apprenticeships#contribution-6844069F-A13A-4E20-9519-113C70DD4A6C](https://doi.org/10.1016/j.elsa.2021.100000)

(Also in PDF)

**[S6]** Email from Tim Leunig 28 October 2018. Expert adviser at the Department for Education. (Reference for grant application for Jenifer Ruiz-Valenzuela). (PDF)

**[S7]** Email from Andy Forbes. 6 June 2019. Principal of City & Islington College up to summer 2019. (PDF)

**[S8]** Email from Sarah Waite. 9 December 2019. Founder of the Charity 'Get Further'. (PDF)

**[S9]** Belfield, C., C. Farquharson, and L. Sibieta. (2018). 2018 Annual Report on Education Spending. The Institute for Fiscal Studies. Page 39-40 <https://www.ifs.org.uk/publications/13306>  
(Also in PDF)

**[S10]** Henehan, K. and A. Vignoles. (2018). Technical Fault: Options for promoting human capital growth. Resolution Foundation report. Page 28, Figure 9.  
<https://www.resolutionfoundation.org/publications/technical-fault-options-for-promoting-human-capital-growth/> (Also in PDF)

**[S11]** Skills for Jobs White Paper. January 2021.  
<https://www.gov.uk/government/publications/skills-for-jobs-lifelong-learning-for-opportunity-and-growth> (Also in PDF)