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BERA Expert Panel on Educational Research Funding Working Paper

The volume, value and composition of investment in education research

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1. *Introduction*

The overarching goal of the BERA expert panel is to develop a clearer understanding of the elements of the landscape of educational research and how they are related to each other, and thereby provide a forward-looking view of how best to support educational research in the interests of the public good.

The Panel's work is framed by four aims[i]. The first of these is 'to map the nature and volume of funding for educational research, highlighting notable trends over time and how it compares to other social science disciplines.'

This working paper draws on two key sources, namely (a) a recent report published by the Academy of Social Sciences (AcSS, 2024), and (b) data on research income shown in submissions to the UK Research Excellence Framework (REF) in both 2014 & 2021.

2. *Volume and value: real-terms decline in education research funding*

Drawing on an analysis of data from the Higher Education Statistics Agency[ii] (HESA) over nine academic years, the Academy of Social Sciences recently noted:

> 'The UK is a world leader in social science research and the impact of that research, as evidenced in the 2021 Research Excellence exercise: 80% of social science research was world leading (37%) or internationally excellent (43%). Recent reports by the Academy of Social Sciences and the British Academy further exemplify value for money and impact: social science is fundamental to understanding and helping mitigate many of the economic, social, place-based and environmental challenges we face in the UK, and in contributing to multi-disciplinary "missions"' (AcSS, 2024: 1).

The report notes that despite this, the differences in funding between the social sciences and other major areas of research have widened during the last decade, such that the differential 'has grown ever wider at the same time as social science research and impact has performed better than ever and the need for it is greater than ever. This is a supply constraint not a demand constraint' (AcSS, 2024: 1-2).

Furthermore, within and among the social sciences there are marked differences between disciplines in the profile and trajectory of research funding. Over the past decade, four discipline areas (psychology; geography and environmental studies; business and management; sport science and leisure) have all seen substantial increases. More modest increases can be seen in almost all the other social science disciplines, except for two:

> 'Two social science areas stand out as markedly different: education and social aspects of health science. Unlike all the other disciplines, both have seen a decrease in total research income pa. in real terms over the nine years, the prime cause being a fall in research funding directly from UK Government…Both are areas of considerable public expenditure, policy challenge and public concern… Further investigation is recommended in both cases to understand what lies behind these research funding changes'' (AcSS, 2024: 3 & 24)

The AcSS analysis shows that education research funding 'has seen a decline in real terms of approximately 10%' (AcSS, 2024: 23). This conclusion is triangulated in a separate study based on data published in the Main Panel C (MPC) overview reports of the Research Excellence Framework, comparing the research income recorded in submissions to Education in the last two cycles (REF 2014 and REF 2021) (James, 2023). For each Unit of Assessment (UoA) in REF, submissions include details of research income, broken down by broad category and by year. This figure has high veracity and there are strong in-built incentives to achieve accuracy.

The REF-based analysis confirms (a) the patterns identified by AcSS in the variability in funding trajectories among social science disciplines, and (b) that education is an outlier. For the period covered by the most recent REF, all education submissions combined had an annual average of £56.8 million in research income. The equivalent figure for the earlier (REF 2014) period was £60.7 million.

Crudely speaking, this is a decline of around £4 million per year. In real terms it is of course much more, at around £12 million per year (a decline of 17.4 per cent).[iii] This is despite increases in (a) quality[iv], (b) the number of submissions, and (c) the number of institutions and staff represented. Further insights on the profile of research in education between REF 2014 and 2021 can be seen in the final publication in the series on *The State of the Discipline* produced by the British Educational Research Association (Munoz-Chereau & Wyse, 2023).

The difference between the two analyses of real terms decline is likely to reflect differences in the rules and practices surrounding the data collection in each case. For example, HEIs making submissions to REF have some flexibility when it comes to the staff and research income included in each specific UoA. In other words, some research income that is

categorised as 'education' in institutional HESA returns may appear in a Unit of Assessment other than Education in REF, and vice-versa.

Referring to the social sciences as whole, the AcSS report Executive Summary states:

> '…the new UK Government needs to consider whether it is getting as much benefit as it might out of our world-leading social science research base. This is particularly important when so much of its policy agenda – reducing inequalities improving access to services, boosting regional economic growth – is dependent on social science insights and evidence to inform decision-making. Because of this, and arising from the data analysis and contextual changes over the past nine years, we recommend Government and UKRI:
>
> - Review urgently the adequacy of the research funding levels for the social sciences sector, including their involvement in multi-disciplinary, challenge-led research.
> - **Give additional consideration to the funding of education research and that in the social aspects of health sciences**
> - Secure the UK's involvement in the EU Horizon programme for the next round.'
>
> (AcSS, 2024: 3. Emphasis added)

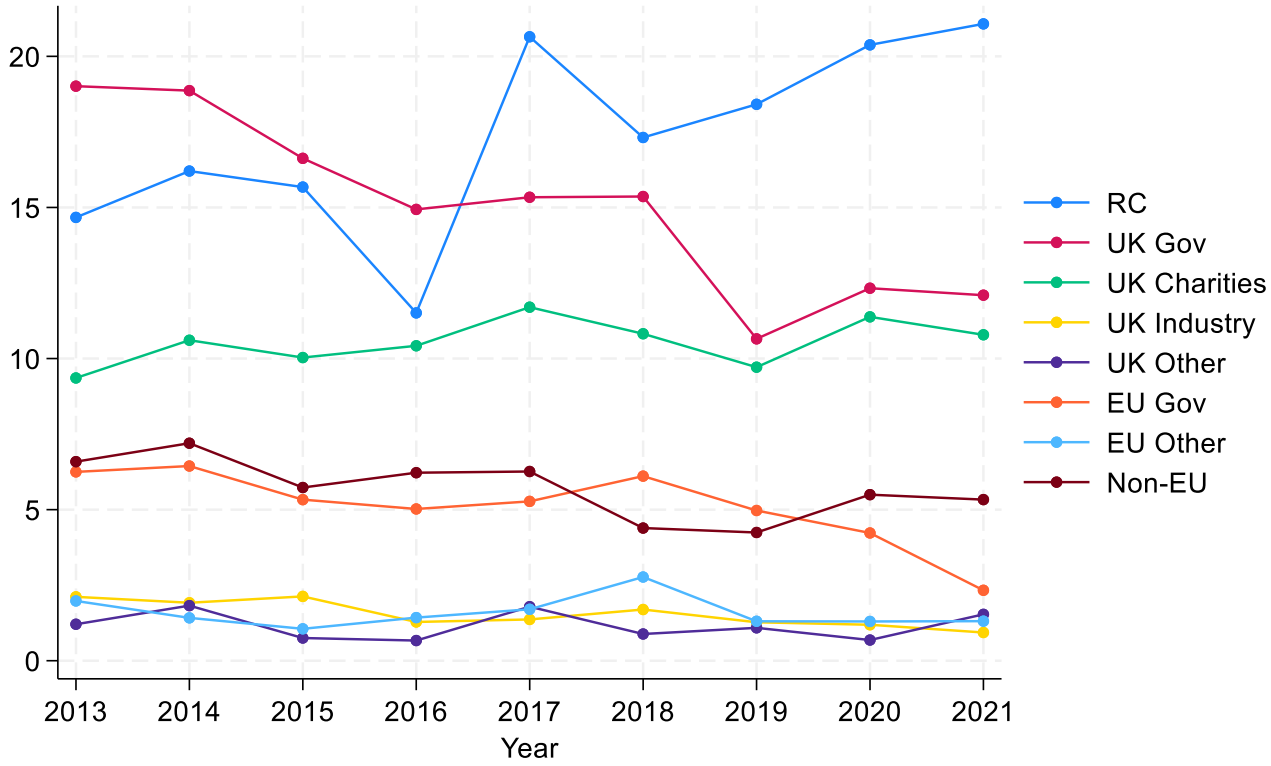
The BERA Expert Panel endorses this view and is contributing to the further investigation of these matters[v].

3. The changing composition of education research funding

There was dramatic change in the composition of income for education[vi] research between 2013 and 2021. As shown in Figure 1, the highest income source in 2013 was the UK government. After 2013, income from the UK government steadily declined, with the most substantial drop occurring between 2018 and 2019. By 2019, UK government funding for educational research had fallen by 42%. Although income from the UK government began to increase again after 2019, by 2021 it was still around 36% below its 2013 level.

Research Council (RC) funding shows a different pattern over the same period. It increased slightly from 2013 to 2014, fell slightly in 2015, then saw a marked 25% decline between 2015 and 2016. Following a sharp 75% increase between 2016 and 2017 and a smaller drop between 2017 and 2018, RC funding then increased steadily each year. By 2021, income from this source was 44% higher than the amount received in 2013, and it had become the largest source of income for education research in the UK, approaching double the value of UK government funding.

Figure 1. Education Research Grant Income 2013 – 2021 £million (adjusted to 2021/22 prices using the HM Treasury GDP indices).



Source: Academy of Social Sciences (AcSS) – Higher Education Statistics Agency (HESA)

Additionally, funding from EU governments increased slightly from 2013 to 2014 but steadily declined between 2014 and 2017, resulting in a 16% decrease by 2017 compared to 2013. Despite a slight increase in 2018, by 2021 income from the EU was 63% less than in 2013. Income from all other sources (UK charities, industries, and others) remained relatively unchanged during the 2013–2021 period, with only slight fluctuations. As of 2021, income from these sources was not significantly different from 2013 levels.

4. *Education research in relation to total social science research funding*

The combined total grants for research across all twelve social science[vii] disciplines have risen over time. Between 2013 and 2021, social science research funding income increased by 23%. As shown in Figures 2a and 2b, growth was steady from 2013 to 2018, with an average increase of about 3% per year. Funding for social science research then fell slightly in 2019 and increased again in 2020 and 2021.

In comparison, education research funding increased slightly between 2013 and 2014, then declined markedly in 2015 and 2016. By 2016, it was 16% lower than in 2013. It rose sharply

by 24% in 2017 but declined again in 2018 and further in 2019. Funding picked up again in 2020 and fell slightly in 2021. However, as of 2021, Education research funding was 9% below its 2013 level.

Figure 2a. All Social Sciences and Education Total Research Grant Income 2013 – 2021. £million (adjusted to 2021/22 prices using the HM Treasury GDP indices). Source: Academy of Social Sciences (AcSS) – Higher Education Statistics Agency (HESA)

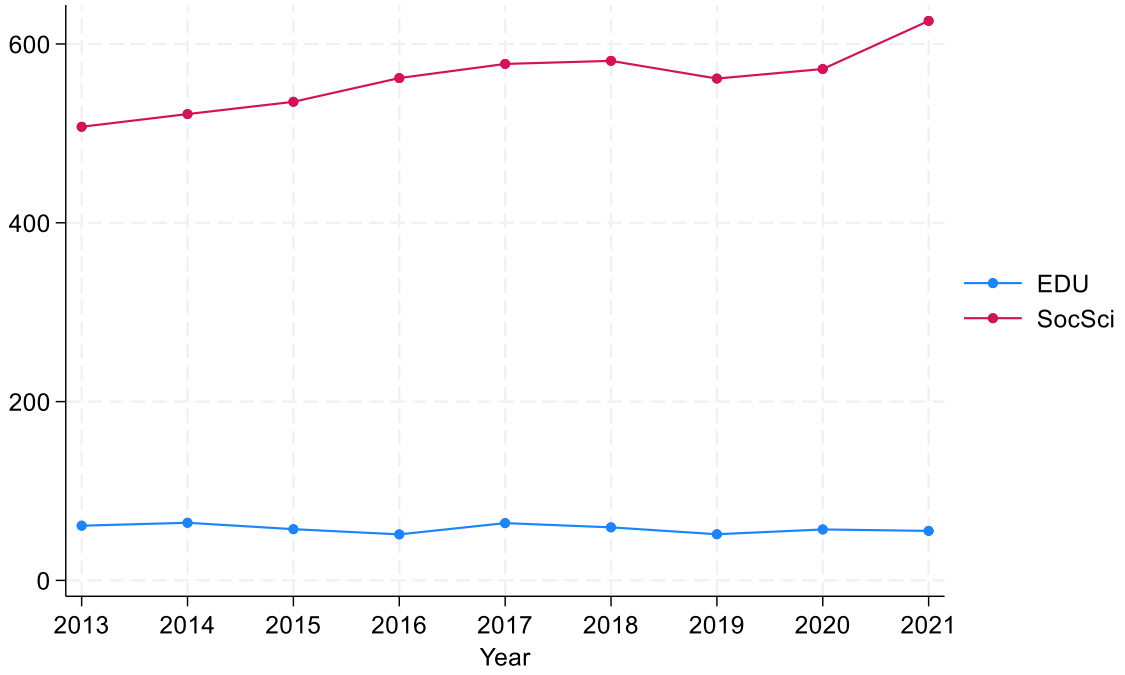
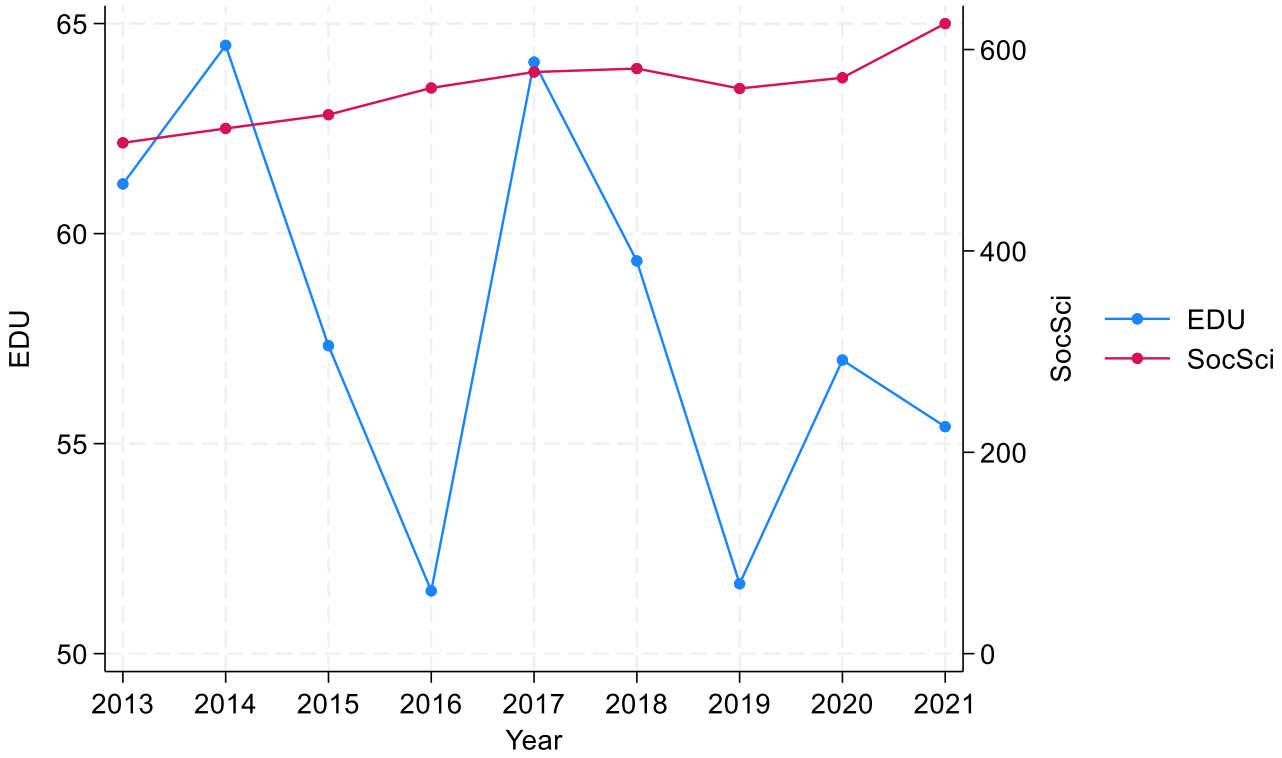


Figure 2b. All Social Sciences and Education Total Research Grant Income 2013 – 2021 (different axes). £million (adjusted to 2021/22 prices using the HM Treasury GDP indices). Source: Academy of Social Sciences (AcSS) – Higher Education Statistics Agency (HESA). Note that Figure 2b uses separate axes for EDU (left hand axis) and total social science (right hand axis) to visualise the marked changes in EDU research grant income over the 2013 to 2021 period.

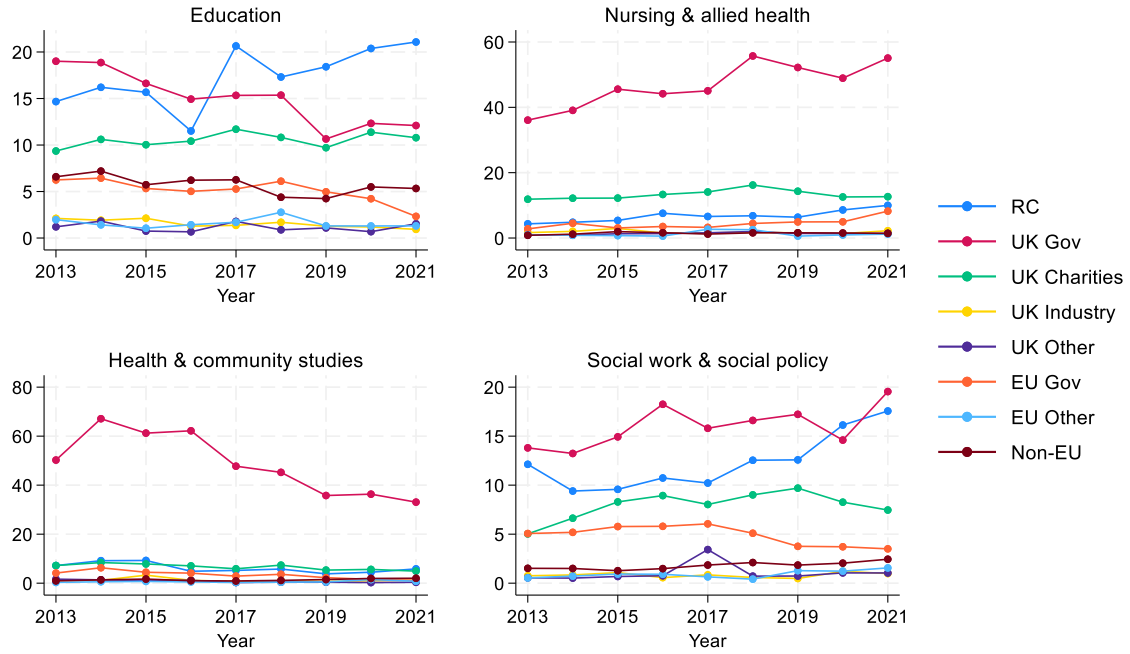


5. *Funding for Education Research compared to three other disciplines*

Education research includes a variety of concepts and methods that connect it to other disciplines, and which often make it interdisciplinary. It also has a close relationship to policy, provision and practice across a large and varied array of institutions and purposes which collectively amount to one of the largest areas of UK public expenditure. While it is distinctive, there are some areas of similarity with other fields in which research has an important relationship to policy, provision and practices.

For this reason, it is instructive to compare research grant income sources across four disciplines: Education, Nursing and Allied Health (NAH), Health and Community Studies (HCS), and Social Work and Social Policy (SWP). Figure 3 shows that, across all four disciplines, the UK government was the highest source of research funding in 2013, however the trends from 2013 to 2021 varied. Education and HCS experienced steady declines in UK government funding, with reductions of over 36% for Education and 34% for HCS between 2013 and 2021. In contrast, NAH and SWP saw overall increases in UK government funding, notwithstanding some fluctuations during the period. By 2021, UK government funding was 42% higher for SWP and 53% higher for NAH compared to 2013 levels.

Figure 3. Selected disciplines Research Grant Income Sources 2013 – 2021. £million (adjusted to 2021/22 prices using the HM Treasury GDP indices).



Source: Academy of Social Sciences (AcSS) – Higher Education Statistics Agency (HESA)

Also noteworthy here is that both Education and SWP saw increases in funding from research councils. Although funding fluctuated between 2013 and 2021, by 2021 RC funding for Education was 44% higher than 2013 levels, while for SWP it was 45% higher. Additionally, SWP experienced a steady increase in income from UK charities for much of the period: despite several fluctuations, 2021 income from UK charities was 48% higher than 2013 income. All other income sources remained similar across the period under study.

6. *Education research investment in relation to public spending on all educational activity.*

As noted above, across all Education submissions to REF 2021 combined, there was an average annual collective research income of £56.8 million. This may be conceived as most of what the UK invests in education research, and perhaps an indication of the 'UK PLC R & D investment in education'. Education is the second largest area of UK public spending, and in the last year before the pandemic was £104bn, or around 4.4 per cent of national income (Institute for Fiscal Studies, 2021). £56.8 million amounts to 0.054% (about 1/20th of 1%) of £104bn. The REF sub-panel's view was that this is a '…very small amount in the context of annual public spending on education' (Para 6.3, REF 2022).

Arguably, education accounts for such a large portion of public spending because it is so important. It is a large field of institutions, organisations and activity that fundamentally shapes the life-chances and prospects of everyone, amongst other things including how economically productive they are, how healthy they are, how law-abiding they are, the values and capacities they develop including how they live with and alongside their fellow citizens and contribute to communities. This begs the question of why the level of investment in education research is so small in relation to both the costs of educational activity and their significance.

7. What may account for the general decline in education research funding?

It is one thing to describe the decline in the resources associated with research in education, but quite another to try to discern what may have given rise to it. The REF 2021 sub-panel report notes that there had been:

> '…a decline in major national programmes of educational research compared to the period considered in REF 2014. Together with specific reductions (e.g., in Official Development Assistance funding) and uncertainties following Brexit, the current level of investment in educational research along with reduced potential for international collaborations and impact presents considerable risks to the discipline.' (REF 2022, p. 169).

Three observations may be helpful here.

The first concerns the origins of the downward trend. As we have seen above, the decline UK government funding for education research over the last nine years is clearly visible in the AcSS analysis of HESA data. Although the most recent REF MPC overview report is less informative on this point, that from the previous exercise (see REF 2015) shows that UK government funding reached a peak 2004-5, then declined quite rapidly up to 2012-13. This suggests a longer trend, pre-dating the nine years shown in the AcSS analysis. Education research is very qlikely to have been affected by a decline in this particular source.

Secondly, as noted in Gardner et al (2022), Lenihan and Witherspoon (2016) showed that a period of declining UK government investment was the backdrop for a steady rise in the securing of European Research Council funding for social sciences up to 2014. Education reflects this rise in its proportion of EU funding year-on-year from 2008 to 2014 (Hantrais & Lenihan, 2016) but is likely to have suffered particularly (perhaps even disproportionately) in the wider decline in share of EU Horizon 2020 funding that occurred between 2016 and 2019 (Else & Gibney, 2020).

Thirdly, research in Education is also likely to have been seriously impacted by the cuts in UK ODA funding for research (and their effect on GCRF, Newton Fund etc.) (Gardner et al, 2022), though these changes will have been felt most keenly after the reporting period for REF 2021 had closed.

8. Further considerations

a. We are examining the nature and frequency of mentions of funding sources in the 'Environment' components of the 83 submissions to REF 2021.

b. We are using the UKRI Gateway to Publicly Funded Research and Innovation web-based tool to refine our understanding of types and sizes of research grants that are (or include) education research.

c. As suggested by some of our interviewees, it is possible that in England particularly, expenditure on education research is increasingly understood within government as being that which is channelled through EEF. A high proportion of this is spent in organisations other than universities, and so it is not always recorded in data such as that collected by the HESA or by REF. It would be very helpful indeed to know what proportion of EEF research funding sits outside of universities.

d. Also highly pertinent here is the recent study of social science research impact by the Leverhulme Centre for Demographic Science at Oxford. This shows that there were 66 Impact Case Studies in REF 2021 that were focused on education and inequality. A large proportion of these show that underpinning research was funded by UKRI sources. Just two named EEF as a funding source, despite the theme of education and inequality being the central characteristic of EEF's mission.

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ENDNOTES

[i] The aims of the Panel's work are:

I. To map the nature and volume of funding for educational research, highlighting notable trends over time and how it compares to other social science disciplines.

II. To provide an overview of the elements of infrastructure and current relationships between research, policy and practice in the UK, including key variations across the four jurisdictions.

III. To provide an informed analysis of the extent to which these current arrangements serve:

   a. the public good

   b. the interests of stakeholders such as children, learners, citizens, educators, researchers, institutions

   c. the fostering of research capacity building

   d. the generation of imaginative and creative responses to educational challenges.

IV. To present recommendations that are forward-looking, and which may lead to improvements.

[ii] HESA data 'is inclusive of all research funding received in an institution, from the UK and internationally and from competitively won grants and awards to research consultancy services. It does not include QR funding to institutions arising from the research excellence assessments. All data is adjusted to 2021/22 prices using HMG Treasury GDP indices.' (Academy of Social Sciences, 2024, *Foreword*).

[iii] Calculated from REF Main Panel C data using the Bank of England Inflation Calculator https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator We used mean annual research income across all submissions combined, and took the middle years of each REF period as the reference-point (2011 for REF 2014, and 2018 for REF 2021). The inflation calculator shows that £60.7 million in 2011 would equate to £68.8 million in 2018. Clearly, £68.8 million per year is around £12 million more than the actual annual average of £56.8 million shown in REF 2021. This represents a decline of 17.4 per cent.

[iv] A comparison between the outcomes of REF 2014 and REF 2021 offers strong evidence for a rise in the quality of educational research. This is especially visible in the proportion of outputs assessed to be 4-star ('Quality that is world-leading in terms of originality, significance and rigour') which rose from 21.7 per cent to 29.8 per cent between the two exercises, and in the proportion of impact assessed as 4-star ('impact that is outstanding in terms of significance and reach) which rose from 42.9 per cent to 51.1 per cent. Education research had exactly the social sciences average proportion of overall four-star quality and was significantly ahead of the social sciences average in terms of four-star research impact.

[v] Both the REF data and the HESA data present clear evidence of a reduction in the value of funding for educational research. However, the *Landscape* report dated 2021 (published 2024) of work jointly commissioned by the British Academy and Royal Society suggests that 'Total annual funding for the period 2010-20 increased, with some year-to-year fluctuation, from £18m in 2010 to £58m in 2020' (Oancea et al, 2021, p. 7). Our discussions with members of the research team for that work have clarified that (a) the team used a specific and intentionally narrow definition of research projects which will have excluded some sources and research activities, and (b) that no account was taken of inflation across the 10-year period. In addition, we note that the quoted figure of £18m for 2010 is less than a third of the education research income that is recorded in REF submissions. Using 2012-13 as a base year, the REF Main Panel C report states that total education research income for the six years covered by REF 2014 was £303,665,000 (REF 2015, p. 23, table 9) and notes that '(a)verage external research income for each year of the REF period was over £58 million' (p.103)). We are therefore confident that the *Landscape* report does not challenge our own analysis in this respect.

[vi] Combining both 'Education' and 'Continuing education' categories in HESA data.

[vii] The twelve social science disciplines within REF 2021 Main Panel C (MPC) were: Architecture, Built Environment & Planning; Geography & Environmental Studies; Archaeology; Economics & Econometrics; Business & Management Studies; Law; Politics & International Studies; Social Work & Social Policy; Sociology; Anthropology & Development Studies; Education; Sport & Exercise Sciences, Leisure and Tourism. These align quite closely to HESA categories, though the latter shows separate figures for 'Education' and 'Continuing Education'.