



ECONOMIC AND SOCIAL RESEARCH COUNCIL IMPACT REPORT

The Impact Report should be completed and submitted using the **grant reference** as the email subject to, reportsofficer@esrc.ac.uk on or before the due date.

Please complete each box as fully as possible, adhering to the word counts, please do not include images within the text. Appendices are not accepted.

Principal Investigators are expected to consult with co-investigators on the content of this report.

Grant Reference:	RES-062-23-1831
Investigator/s:	Profesor Michael Winter, Dr David Harvey, Dr Paul Brassley, Dr Matt Lobley
Project Title:	Processes of Technical Change in British Agriculture: Innovation in the Farming of South West England, 1935-1985

Description

Please include a short overview of the project's impacts (*max 2000 characters with spaces*).

The objectives of this project were to produce a detailed survey of agricultural change, and technical change in particular, over the period 1935 – 1985, and to shed light on how and when changes on individual farms were brought about. These objectives were realised, as detailed in the project end of award report. We should note that there was no requirement at the time of the awarding of the grant to produce a pathways to impact plan, and impact beyond these objectives was not the central focus of the project. As an historical project its impact beyond its contribution to the field of knowledge in this area was always bound to be limited. We did, however, identify groups of beneficiaries and we have worked to engage with these audiences to discuss our findings and to broaden knowledge and cultural understanding, and this work is outlined below. In particular we were keen to discuss our findings with rural historians, focusing on but not restricting ourselves to individuals and groups in the area studied, and to this end we undertook engagement with publics including relevant societies and other organisations, and this engagement continues. Crucially, the PI and Co-Is lead numerous other funded research projects and the findings and knowledge gained from this project help to set the context for and feed into each of those. The policy work of the PI in particular is informed by broad historical contexts and knowledge about the implementation of and response to technological change provided by work on this project is vital in this regard.

1. Scientific impact

A Please **summarise** below the scientific impact(s) your project has had. [*Max 2000 Characters with spaces*]

As the European Rural History Organisation (EURHO) conference at Bern in August 2013 demonstrated, the last decade has seen a significant expansion of the subject across Europe. Prominent among the 300-plus delegates attending the 77 sessions of the conference were those interested in the history of the twentieth century and in technical change, and one of the pioneering investigations of technical change in the post-World War II period was seen to be the project under review here. Much of the previous work explaining technical change in the agriculture of developed countries was carried out by agricultural economists, and based on national statistics and contemporary surveys, and what historical work there was tended to use this material as its primary data. The novelty of this project was that it studied the topic at the individual farm level, by combining the results of a large historical database with oral history interviews of a sample of the farmers found in the database. It also used national archive material to explore the process of knowledge transfer and the construction of knowledge networks to facilitate the development of agricultural technology from the laboratory to the farmyard. This work is contributing to an emerging process of historical evaluation of technical change in European agriculture now being carried out not only by the present team at Exeter but also by others in Austria (St Pölten), Spain (Zaragoza and Santiago de Compostela) and Belgium (Leuven), with all of whom we have been in fruitful contact. We have also had scientific impact beyond the rural history community. The integration of material from a large numeric database with individualised qualitative material (providing more space to 'non-elite' and 'everyday' interpretations) has brought us into contact with a broader oral history constituency (e.g. through the Exeter Oral History Hub).

B Please outline the **findings and outputs** from your project which have had the scientific impact(s) outlined in 1A. [*Max 2000 Characters with spaces*]

As a result of the emphasis of the Farm Management Survey sample for which we have the archive, our project concentrated on the development of dairy farming in south-west England between 1935 and 1985. It revealed the importance of technical changes such as artificial insemination, the concentration on the Friesian breed, silage, housing and mechanisation, as might be expected, but also provided extensive evidence of the importance of specialisation, from both economic scale and technical knowledge perspectives. Associated with this was the obverse: exploring the enterprises that did not expand, but contracted or disappeared, which in the case of many of the farms involved meant intensive livestock. And because this work was carried out at the individual farm level it provided vivid evidence of the variations between farms in their rates of adoption and structural change, and the reasons for them. It also enabled us to explore not only the provision of technical advice, but also the way in which farmers reacted to this advice within the wider context of agricultural policy. These findings were promulgated to academic colleagues in a series of conference papers and the planned book (see 3B). To date the project has resulted in over 20 international, national and local conference or seminar

presentations to a mixture of academic and non-academic audiences, as listed on the ROS. Our dissemination venues have ranged from European conferences in Ghent, Bern and Prague to the University of the Third Age in one small Devon town and local history society presentations in Devon villages. As well as engaging with scientists in the more academic of these presentations our local talks to ‘lay’ audiences have allowed non-expert influence on the development of our own scientific ideas.

C Please outline **how** these impacts were achieved. *[Max 2000 Characters with spaces]*

Papers to academic conferences were generally by invitation, with the exception of the 2010 EURHO conference at Brighton in 2010, where we convened a panel on ‘Perspectives on technical change in agriculture’ (session 6.5), which included our own paper under the same title. At the British Society for the History of Science meeting in Exeter in 2011 we were invited to contribute to a panel by Dr Abigail Woods (now at Kings College, London); at the European Social Science History conference in Glasgow in 2012 we contributed to a panel on European Agriculture convened by Professor Vicente Pinilla (University of Zaragoza). We were invited to deliver a paper to the British Agricultural History Society Annual Conference at Askham Bryan (York) in 2013 by the Secretary, Dr Nicola Verdon, and at the EURHO conference in Bern in 2013 we were invited to contribute to a panel on knowledge networks by its organiser, Professor Yves Segers (University of Leuven). Other impacts were achieved through papers for International Historical Geographers (Prague August 2012, a methodologically-focussed contribution to the ‘Geographies of Creativity and Knowledge’ workshop (June 2012) and in a panel on ‘Memory and Space: the Past in its Place’, at the Conference of Early Modern Memory’ (Worcester, May 2014) and invited seminars in the University of Oulu (‘heritage and scale’ paper) in Finland (Jan 2014) and the University of Helsinki (‘Heritage and landscape’), in February 2014. The project is informing an invited paper (Programme Director, Professor Tobias Pliening, University of Copenhagen) on ‘The relations between heritage and landscape’, at the ‘Sustainable Futures for Europe’s Heritage in Cultural Landscapes’ (HERCULES) EU-funded Programme related to the European Landscape Convention (Amsterdam, Sept 2014).

D Please outline **who** the findings and outputs outlined above had an impact upon. This can include specific academics/researchers through to broader academic groups. *[Max 2000 Characters with spaces]*

Historians at: University of Santiago de Compostela (in particular Professor Lourenzo Fernandez Prieto, Dr Daniel Lanero Taboas and Dr David Soto, in addition to Santiago postgraduate students, one of whom (Alba Diaz) benefitted from an exchange at Exeter; Centre for Agrarian History, University of Leuven (especially Professors Leen Van Molle and Yves Segers), University of Utrecht (Professors Harro Maas and Peter Koolmees), Charles University, Prague; International Institute of Social History; British Society for the History of Science; Glasgow University; University of Sussex; Agricultural History Society; Historical Geographers (through conference presentation). In addition to those named above, this project has also provided data and concepts to three other projects: one on rural electrification, which will result in a book to

be published by Ashgate in 2015, edited by Karen Sayer, Jeremy Burchardt and Paul Brassley; another on knowledge networks, for which Leen Van Molle and Yves Segers have organised a conference to be held at Leuven in August 2014 with the aim of producing a book (of which Brassley will be one of the editors and a contributor); and a third on rural Europe between the end of the Second World War and the formation of the Common Agricultural Policy, for which Carin Martiin (Swedish Agricultural University, Uppsala) and Juan Pan-Montojo (Universidad Autonomia de Madrid) and Brassley have organised a conference in Zaragoza in June 2014.

2. Economic and societal impact

A Please **summarise** below the economic and societal impact(s) your project has had.
[Max 2000 Characters with spaces]

We set out to achieve two very different economic and social impacts. First, although primarily a work of historical scholarship, we couched our original proposal in terms of generating understanding relevant to contemporary issues of land management and food security. This was of particular importance to the PI given his level of engagement in contemporary policy issues, for example as a member of the National Ecosystem Assessment Expert Panel and a Commissioner for the Commission for Rural Communities (until its abolition in 2013). His work with and input to these organisations and to other bodies involved in land management and the setting of land management policies is informed by the findings from this project. The most direct example of impact in this respect is the PI's direction of the Defra's Sustainable Intensification Platform (SIP) which commenced in May 2014. SIP involves research, application and knowledge exchange in equal measure. It requires an intimate understanding of farmer behaviour in a context where responding to current challenges benefits from knowledge of challenges in the 1940s and 1950s. As Defra and the science community seek to produce agricultural management policies and practices that blend production and environmental sustainability, an understanding of recent agricultural experience is crucial and the PI continually seeks to feed the knowledge gained from this project into the understandings of the bodies with which he works. Secondly, at a local level the farmers involved in the project benefited from a greater knowledge and understanding of the history of their own landholding which the project was able to provide, and more broadly, so did local historians and local history groups.

B Please outline the **findings and outputs** from your project which have had the economic and societal impact(s) outlined in 2A. *[Max 2000 Characters with spaces]*

1. Policy Impact

As indicated in 2A above, our interest in how farmers have responded to policy and market incentives in the past has positioned us to contribute to contemporary challenges.

2. Local Impact.

Local history is thriving in many communities up and down the land. There is a continuum from locality based lay groups with a fascination for who and what has shaped their own immediate environs through to county groups often encompassing the interests of both lay

enthusiasts and some professional historians. Thus in Devon we have given talks to both local groups and the Devonshire Association. At the local level the findings that provide the most interest are the details of how, and by whom, the land was farmed in the 1940s and 1950s. By supplementing our own findings from the FBS with additional use of agricultural census parish summaries and the 1941 National Farm Survey, we are able to paint a rich story of localities, allowing people to understand inter-relationships between land and society and how places are shaped and re-shaped as a result of economic activity. In particular, we have challenged stereotypical views of an ‘unchanging’ farming world, revealing the, at times, rapid pace of change in technology, occupation and land use. Local presentations are as follows: University of the Third Age in Tiverton and Torbay (Harvey), local history societies in Hatherleigh and Exbourne and local public lecture in Winkleigh (Winter), Devonshire Association (Winter).

C Please outline **how** these impacts were achieved. [*Max 2000 Characters with spaces*]

In addition to the academic conferences noted at 1C we were invited to contribute a session on the historical background to a conference organised by the Museum of English rural Life, University of Reading to celebrate the 60th anniversary of the BBC radio programme *The Archers* in May 2011. This enabled us to show a mixed audience of people from the media, the museum world, academia and the general public how our historical work could be used to explain the background to and significance of the programme.

D Please outline **who** the findings and outputs outlined above had an impact upon. This can be at a broad societal level through to specific individuals or groups. [*Max 2000 Characters with spaces*]

Local historians including: Hatherleigh Historical Society, Devonshire Association, Tiverton and Torbay U3A; also the European Rural History Organisation; the British Agricultural History Society; the Museum of Rural Life (UK).

3. Unexpected and potential future impacts

A Unexpected Impacts

Please note which, if any, of the impacts that your research has had were *unexpected* at the outset of the project, explaining where possible why you think this was the case. [*Max 2000 Characters with spaces*]

We had not anticipated at the time of preparing this research proposal in 2008 just how rapidly food security concerns would escalate in the UK and globally. We knew that the issue was gathering momentum and that it could be helpful to increase understanding of how farmers had responded to the food security challenges of the 1940s and 1950s. However we could not have anticipated the level of UK government interest in the issue as evidenced in the launch of the Sustainable Intensification Platform. Concerns that we explored in the project about how farmers are motivated both to intensify production and to collaborate, so important seventy

years ago are now again central policy challenges with programmes of interdisciplinary research and farmer engagement implemented as a result. In short, our research has been more relevant to contemporary concerns than we had anticipated.

B Potential Future Impacts

If you have a clear idea of the impact your project is likely to have in the future please detail these below. [*Max 2000 Characters with spaces*]

We are currently working on a book which will be the main output from the project. We had originally hoped to complete a full draft of the manuscript by the end of 2013 for publication in 2014 but we are running behind schedule for reasons set out in 4A below. We have however written significant sections of the book, a total of 72,000 words, as indicated by the current word count against each of the five main book sections (the core central sections will be sub-divided into shorter chapters):

1. Introduction: Transforming Agriculture (6,000 words)
2. The Farm Management Survey: A Neglected Resource in Rural History (10,000 words)
3. A Revolution in what? Identifying the changes that transformed agriculture (26,000 words)
4. The State and Knowledge networks in UK farming 1935-85 (30,000 words)
5. Farmers and Change.

Future research projects building on this one are also under consideration. Thus for Harvey, this ESRC project is informing the development of research on landscape management and heritage over the 'long duree', from late medieval to present day, which interactions with English Heritage who are interested in new ways of approaching land management that are more closely allied to taking account of a 'public voice'. Consideration is also being given by the team to research using the archived fieldbooks for the period after this study (from 1985 to the mid 2000s).

4. Impact limitations

A Limited scientific impact

Please state below any major scientific difficulties that have limited the scientific impact of your project. The statement should refer to an effect on *impact* rather than simply detail research difficulties or other project activity problems. [*Max 2000 Characters with spaces*]

We obtained a no-cost extension to the project from November 2012 to April 2013 because of delays caused by staff sickness and, in particular, the unexpected and challenging complexity of the data entry process. We had always realized that to enter these data into SPSS would be a time consuming task due to the challenge of reading and interpreting hand written (often pencil) numeric and text data. However, what we had not anticipated was the frequency with which the format of the fieldbooks changed over the years. This necessitated the creation of a complex set of data entry protocols in an attempt to capture comparable data over time. Due to the unexpected and challenging complexity of the data entry process, extra resources were deployed

through the employment of additional data entry staff. Even the extension of the grant period was insufficient entirely to make up for the extra time needed in data entry and analysis. These methodological issues have had major consequences on the scientific impact of the project due to delays in completion of the book which we always anticipated would be the main scientific output from the project. In short, when the book is published we anticipate the scientific impact of the project to grow significantly.

B Limited economic and societal impact

ESRC recognises that some of the research it funds will not have an economic or societal impact in the short term. Please explain briefly below if this is the case for your project, and refer to your grant application where relevant. *[Max 2000 Characters with spaces]*