



Award Outcomes

SIRE's mission:

- a) To develop and sustain a reputation for internationally excellent research in major fields of economics, building around and beyond existing strengths, enabling economics in Scotland to compete effectively with leading English and European research centres and attract high quality staff at senior and junior levels.
- b) To attract high quality graduate students to Scotland, consolidating and enhancing the growing success of the Scottish Graduate Programme in Economics (SGPE), and building the next generation of research leaders by attracting and developing high potential young researchers at PhD and junior lecturer level.
- c) To foster and disseminate high quality economics research among all economists in Scotland.
- d) To contribute to the quality of policy-related and other research activities, by providing a forum for interaction between fundamental researchers and policy/applied researchers and through knowledge transfer and CPD activities.

Main outcomes incorporated in milestones:

- a) Appoint to SIRE (SFC co-funded posts);
- b) Increase PhD numbers;
- c) Increase in research grant awards, including ESRC Centre or similar;
- d) Increase in Publications in highly ranked journals;

SIRE appointments:

The SIRE award included SFC co-funding for 18 Professorships and 18 Lectureships. With the agreement of the SFC one of the Lectureship posts allocated to Aberdeen was upgraded to a Professorship. The allocation of posts across SIRE HEIs and the appointments made are summarised in Table 1.

The September 2009 interim Report by two members of SIRE's International Advisory Board, Larry Samuelson and Richard Blundell, notes:

“The market for economists is competitive and recruiting can be a long and laborious process..... In light of this, there was a serious risk that SIRE would either fall woefully short

of its goals, or would approach them only by making serious compromises in quality.....
In contrast to these concerns, we are impressed that SIRE has made extraordinary progress in filling its positions with economists that will be valuable additions to their respective departments and to SIRE more generally. There is certainly no reason to be concerned that a handful of chairs and lectureships remain unfilled, or that the appointment to one chair has since departed. This is to be expected in any recruiting effort of this magnitude. Moreover, the surprisingly large number of appointments have been well chosen, going to first-rate established economists and promising junior economists.”

They conclude the Report by saying:

“Now is the time to capitalize on SIRE’s solid beginning by being all the more demanding in terms of SIRE’s recruiting targets. In particular, SIRE must resist all temptation to finish the

Table 1 SIRE appointments

Professors (18 + 1)	30/09/2008	30/09/2009	30/09/2010	30/09/2011	30/09/2012	21/01/2014	31/10/2014	31/10/2015	31/10/2016
Edinburgh (5)	Rodriguez Mora Guell Hopkins Vacancy Vacancy	Rodriguez Mora Guell Hopkins Vacancy Vacancy	Rodriguez Mora Guell Hopkins Elsby Vacancy	Rodriguez Mora Guell Hopkins Elsby Vacancy	Rodriguez Mora Guell Hopkins Elsby Kircher	Rodriguez Mora Guell Hopkins Elsby Kircher	Rodriguez Mora Guell Hopkins Elsby Kircher	Rodriguez Mora Guell Hopkins Elsby Kircher	Rodriguez Mora Guell Hopkins Elsby Kircher (PT)
Heriot Watt (1)	(Earle)	Jamasb	Jamasb	Jamasb	Jamasb	Bhattacharjee	Bhattacharjee	Bhattacharjee	Bhattacharjee
Aberdeen (2 + 1 converted from L to P)	Hvide Gerdtam Costa-Gomes	Hvide Vacancy Costa-Gomes	Hvide Abul Naga Costa-Gomes	Hvide (PT) Vacancy Abul Naga (R) ^a Costa-Gomes	Hvide (PT) Bender Abul Naga (R) Costa-Gomes	Hvide (PT) Bender Abul Naga (R) Vacancy ^c	Hvide (PT) Bender Abul Naga (R) Vacancy	Hvide (PT) Bender Abul Naga (R) Vacancy	Hvide (PT) Bender Abul Naga (R) Vacancy
Dundee (1)	Vacancy	Vacancy	Bhattacharjee (R) ^a	Bhattacharjee (R)	Bhattacharjee (R)	Vacancy ^d	Zhu	Zhu	Zhu
Stirling (1)	Becker ^b	Becker	Vacancy	Delaney	Delaney	Delaney	Delaney	Delaney	Delaney
Glasgow (3)	Cozzi Talmain Wälde	Vacancy Talmain Vacancy	Nolan Talmain Vacancy	Nolan Talmain Kirsanova	Nolan Talmain Kirsanova	Nolan Talmain Kirsanova	Nolan Talmain Kirsanova	Nolan Talmain Kirsanova	Nolan Vacancy Kirsanova
St Andrews (3)	McCrorie Evans (PT) Vacancy Vacancy	McCrorie Evans (PT) Manzini Mariotti	McCrorie Evans (PT) Manzini Mariotti	McCrorie Evans (PT) Manzini Mariotti	McCrorie Evans (PT) Manzini Mariotti	McCrorie Evans (PT) Manzini Mariotti	McCrorie Evans (PT) Manzini Ponsati	McCrorie Evans (PT) Manzini Ponsati	McCrorie Evans (PT) Manzini Ponsati
Strathclyde (2)	Koop Fingleton	Koop Fingleton	Koop Fingleton	Koop Fingleton	Koop Fingleton Vacancy	Koop Fingleton Vacancy	Koop Fingleton Vacancy	Koop Turner	Koop Turner

Notes:

- (a) Appointment to Readership approved by SFC;
- (b) Initially appointed to Readership, but rapidly promoted to Professorship;
- (c) Vacancy arising from Costa-Gomes' move to St Andrews;
- (d) Vacancy arising from Bhattacharjee's move to SIRE Professorship at Heriot Watt.

Lecturers (18 - 1)	30/09/2008	30/09/2009	30/09/2010	30/09/2011	30/09/2012	21/01/2014	31/10/2014	31/10/2015	31/10/2016
Edinburgh (4)	Kornienko Steiner Gorbachev Kawamura	Kornienko Vacancy Gorbachev Kawamura	Kornienko Vacancy Vacancy Kawamura	Kornienko Zymek Biro Kawamura	Kornienko Zymek Biro Kawamura	Kornienko Zymek Biro Kawamura	Kornienko Zymek Biro Kawamura	Kornienko Zymek Biro Kawamura	Kornienko Zymek Biro Kawamura Vacancy
Heriot Watt (1)	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher	LeMay Boucher
Aberdeen (2 – 1 converted to P)	Vacancy	Vacancy	Mendolia	Vacancy	Aoki	Aoki	Aoki	Aoki	Aoki
Dundee (2)	Petrie Love	Petrie Kwiatowski	Petrie Kwiatowski	Petrie Kwiatowski	Petrie Kwiatowski	Emvalomatis Kwiatowski	Emvalomatis Kwiatowski	Emvalomatis Kwiatowski	Emvalomatis Kwiatowski
Stirling (1)	Lange	Lange	Lange	Lange	Lange	Lange	Vacancy	Erdem	Erdem
Glasgow (3)	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan	Angeles Azémar Moldovan
St Andrews (3)	Trew Arico Faravelli	Forgues-Puccio Arico Vacancy	Forgues-Puccio Arico Vacancy	Forgues-Puccio Arico Vacancy	Forgues-Puccio Vacancy Vacancy	Forgues-Puccio Nichifor Gerasimou	Forgues-Puccio Nichifor Gerasimou	Vacancy Nichifor Gerasimou	Ozhan Nichifor Gerasimou
Strathclyde (2)	Tole Desbordes	Tole Desbordes	Vacancy Desbordes	Tole Desbordes	Tole Desbordes	Vacancy Desbordes	McIntyre Desbordes	McIntyre Desbordes	McIntyre Desbordes

recruiting job by relaxing recruiting standards. Instead, SIRE should now be patient and attempt to put the icing on the cake by recruiting especially well known economists. If this leads to delay in filling these positions, that is a price well worth paying. SIRE's next appointments should excite SIRE and the profession."

We are confident that we followed this recommendation. A simple indicator is that the appointees to the two outstanding vacancies at the time of the interim report were respectively awarded the Philip Leverhulme Prize (for outstanding scholars who have made a substantial and recognised contribution to their particular field of study, recognised at an international level, and where the expectation is that their greatest achievement is yet to come) and the British Academy's first Wiley Prize in Economics (for achievement in research by an outstanding early career economist) shortly after their appointments.

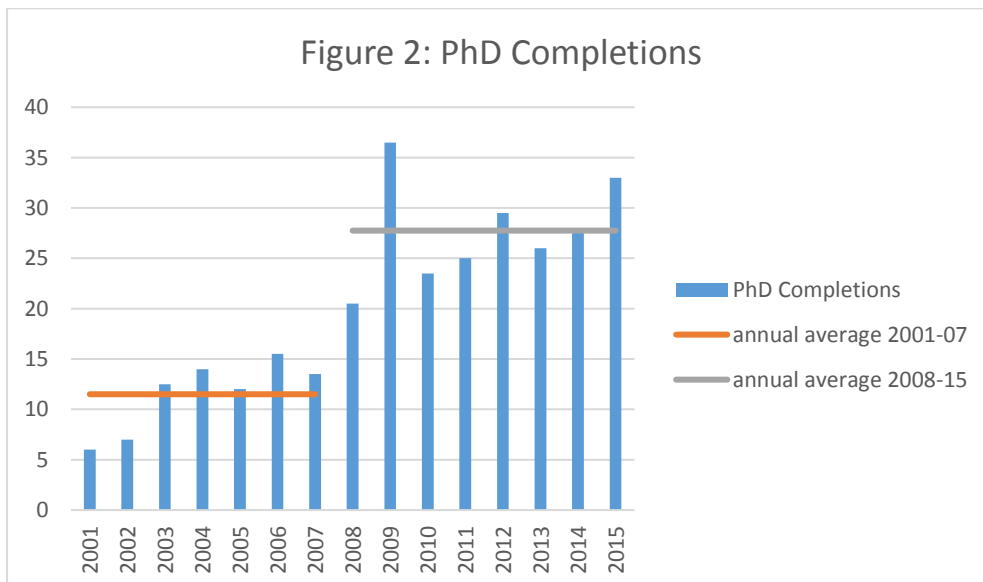
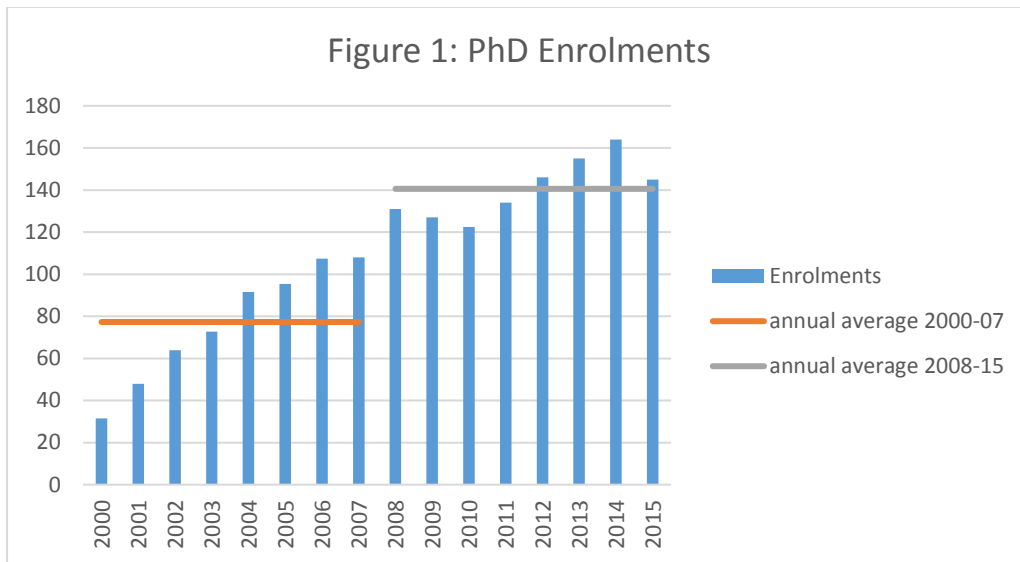
Another, albeit crude, indicator of quality is that 15 of the Professorial appointees have one or more publication in a top five Journal, while 4 of the Lectureship appointees have also achieved this goal early in their careers. To put this indicator in perspective, substantial publications in top 5 Journals by Scottish-based economists were very rare prior to SIRE. 8 of the Lectureship appointees have been promoted internally, with a further 5 moving to promoted posts elsewhere (including Professorships at Paris and Waseda University, Japan).

In the early days of SIRE there were concerns among some University managers about the financial sustainability of these posts as the co-funding by the SFC tailed off. But, as is clear from Table 1, the posts have been maintained well after the 5 year window of SFC co-funding came to an end. As envisaged in the original SIRE proposal, the financial sustainability of these new SIRE posts has been assured by: substantial increases in funding from research grant income; funding increases associated with improved RAE/REF performance; and increased fee income from expansion of graduate and undergraduate programmes.

What is more, the increase in income achieved has enabled many more new posts to be established at senior and junior levels. It is difficult to be completely precise, but across SIRE, there are around 13 new full-time, and 2 part-time, Professors, and around 35 new full-time Lecturers (or similar early career posts) in addition to the SFC co-funded posts. This additional growth, particularly at senior level, has been somewhat concentrated in the larger departments, notably Glasgow and Edinburgh. Importantly the high quality threshold applied to SIRE co-funded posts has been carried over into these additional appointments. For example, 8 of the additional Professorial appointees have one or more publication in a top 5 Journal.

Increasing PhD numbers:

As figures 1 and 2 below clearly indicate, there has been a substantial growth in the scale of the PhD programme since the establishment of SIRE, in line with SIRE milestones. While there had been some growth, from the low point at the turn of the millennium, prior to SIRE, this earlier growth has been consolidated and significantly extended. Importantly this substantial growth in quantity has been achieved without sacrificing quality. Indeed, there are good reasons to think that quality has significantly improved, though it is hard to support this claim with systematic quantitative evidence.



Key factors underlying PhD growth include:

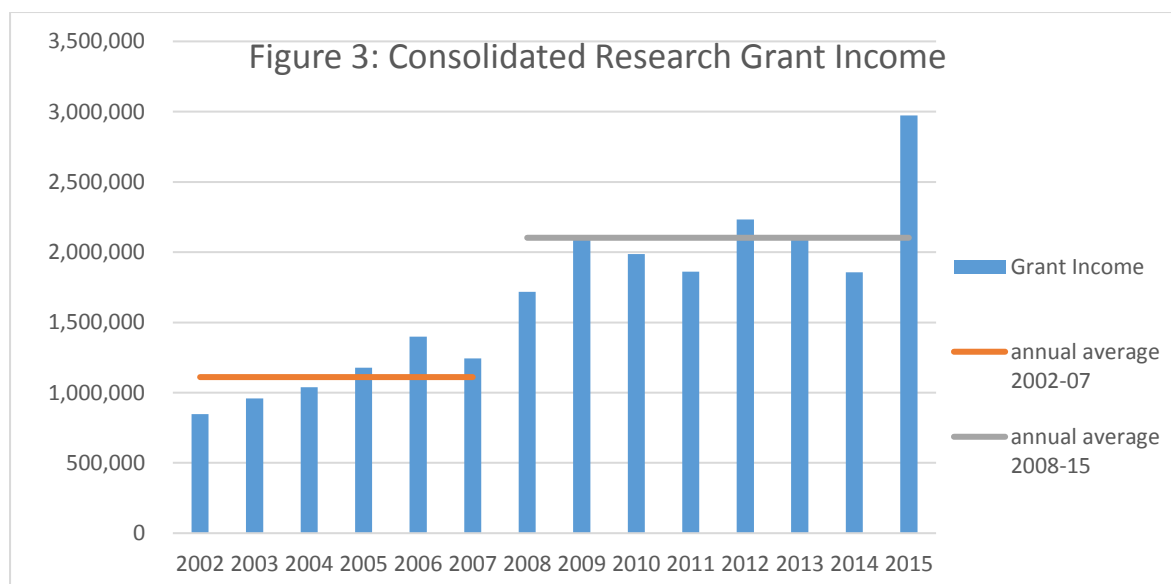
- Substantial improvements to the advanced training offered to PhD students;
- Growth in capacity, quality and reputation of the pool of PhD supervisors;
- Attractive financial packages and studentships arising from: increased ESRC doctoral training provision; increased research grant awards, which in a number of cases included explicit studentship elements; and in-house funding of studentships, which in some HEIs went well beyond the additional studentships promised as part of the HEI contribution to SIRE.

SIRE made a significant contribution to all these factors.

While the PhD growth we have achieved and the programme improvements made have been substantial, it would be wrong to be complacent. Other leading graduate schools, have also made substantial investments in improving their PhD programmes, and we remain some way behind the very top graduate schools in Europe such as the LSE and Barcelona in some aspects of advanced training, and exchange or interaction with other top international programmes. We need to keep working on further programme improvements to maintain and enhance our position in a highly competitive global market. There remain tensions within the SIRE departments over whether these desired improvements are best achieved through extensive pooling and collaboration at the scale of SIRE, through smaller scale collaboration among one or more sub-sets of HEIs, or by HEIs operating more in isolation.

Increasing research grant awards:

As Figure 3¹ illustrates, Grant Income has approximately doubled since the establishment of SIRE, in line with SIRE milestones. Figures 4a through 4e break down this consolidated data by category of income source. As these disaggregated figures reveal, the vast majority of the increased grant income comes from the UKRC (mostly, but not exclusively, ESRC) and the EU.



¹ Reported grant income excludes the substantial grant income of HERU.

Figure 4a: Grant Income from UKRC

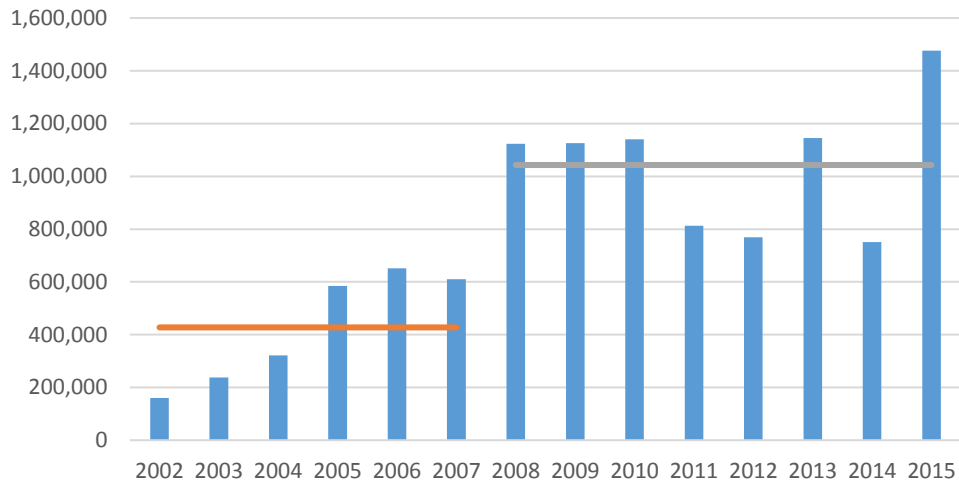


Figure 4b: Grant Income from UK Charities

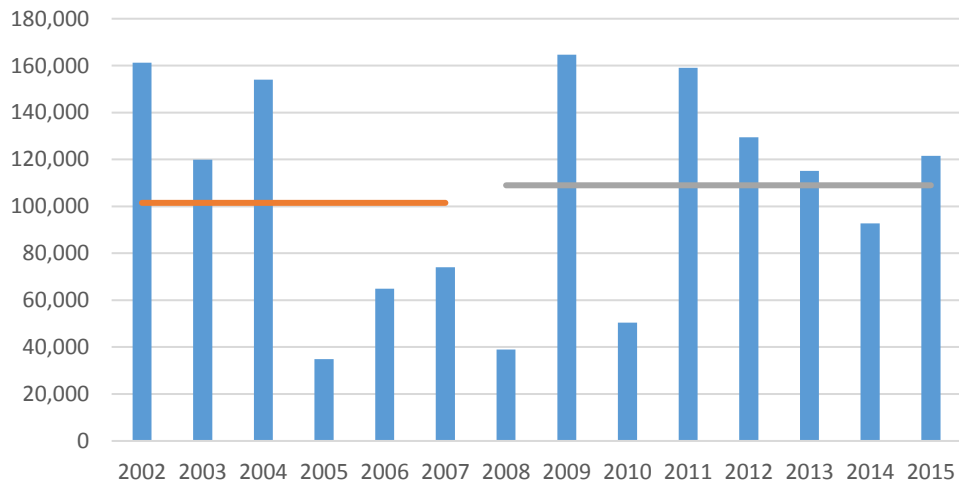
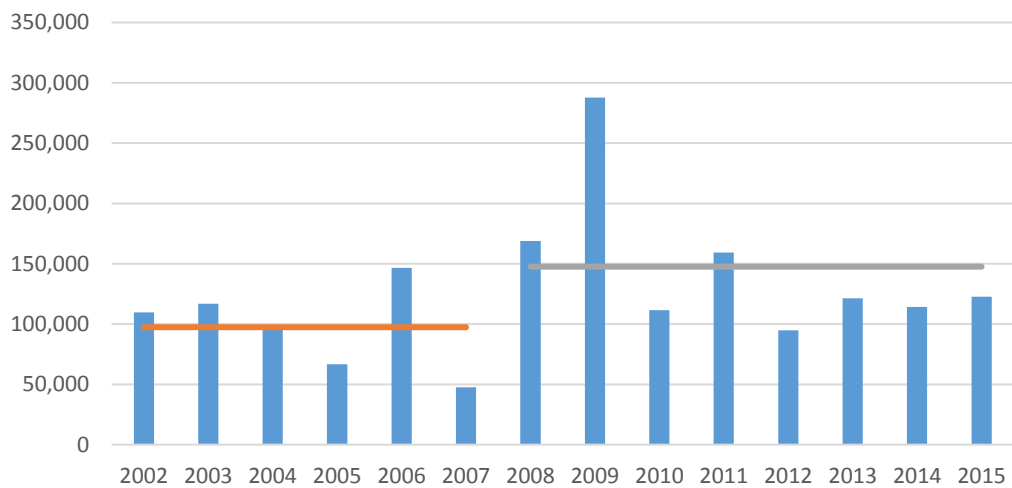
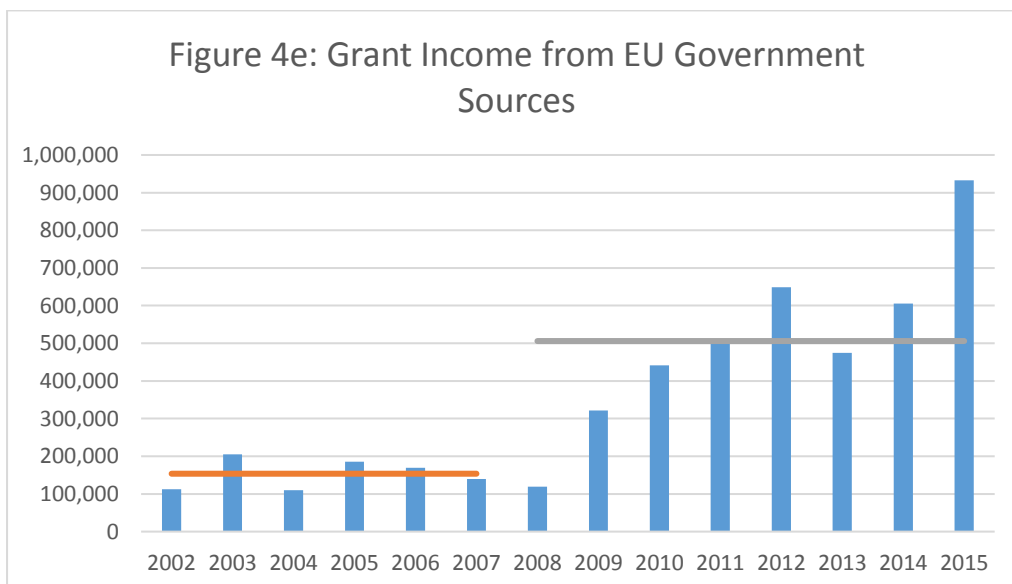
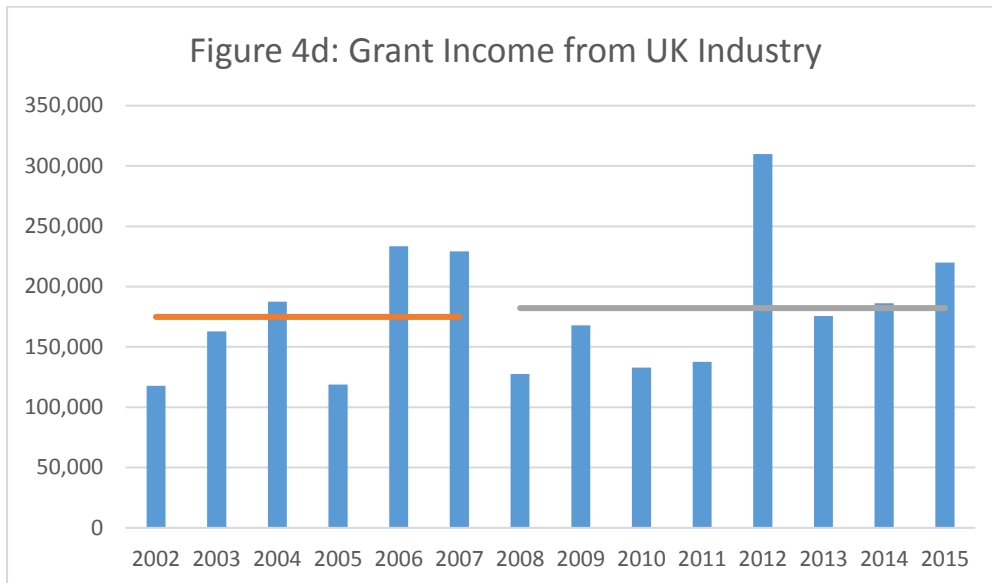


Figure 4c: Grant Income from UK Government





While it is hard to rigorously determine causality, because of the difficulty of pinning down the counterfactual (what would have happened in the absence of SIRE), it seems reasonably clear that SIRE is a significant factor underlying this substantial increase in grant income. In part this linkage is relatively direct, with SIRE appointees themselves being major grant-holders. More widely, the step change in the research environment and culture, critical mass of high quality researchers, and strong and growing research reputation, brought about by SIRE has undoubtedly helped the development of successful grant bids. While grant income has increased across the spectrum, the impact of these wider aspects is, perhaps, most noticeable on large grants. These include our success with large ‘individual’ grants (such as the ERC FP7 ‘Advanced Investigator Grant’), major consortium grants (from both the EU and UKRC), and a large (circa £6 million) grant from the ESRC. The latter, which is equivalent to an ESRC Centre, achieves the aspiration set out in the original SIRE milestones.

The substantial increase in grant income makes an important contribution to the sustainability of SIRE, not just in financially supporting posts and PhD studentships as noted above, but also in providing ongoing support for a variety of events and activities which had previously received support from the SIRE activities budgets.

Increasing publications in highly ranked journals:

The data set out in figures 5a through 5f are based on the updated journal rankings of Kalaitzidakis et al (2011)². Viewed in terms of number of articles, the increase in Top 5 publications – shown in figure 5a - appears very small. This is, however, misleading, since the number of Top 5 publications, pre-SIRE, were boosted by a number of short articles ('Notes' or short 'Papers and Proceedings' contributions). A better reflection of the outcome under SIRE is given by figure 5b, which depicts the number of pages, rather than number of articles, in top 5 Journals. Figures 5c through 5f give a more straightforward indication of the increase in publications in top-ranked journals under SIRE.

While journal rankings are a widely-used indicator of quality within Economics, it should be recognized that rankings have limitations. Rankings vary by methodology used and over time, particularly when one moves outside the top 5 or 10. There are some very good, very highly-regarded Journals which fall outside the Kalaitzidakis top 40. Moreover some high quality applied work, which can have a relatively direct bearing on policy, tends to be underrepresented in the top ranked journals. An important strand of SIRE research activity has been directed at such more policy-oriented applied work and has given rise to a substantial increase in publications in key journals with a more applied and/or policy focus. Figure 6³ illustrates this.

² Pantelis Kalaitzidakis & Theofanis P. Mamuneas & Thanasis Stengos, 2011. "An updated ranking of academic journals in economics," *Canadian Journal of Economics*, Canadian Economics Association, vol. 44(4), pages 1525-1538, November.

³ The data in figure 6 are based on a small set of journals (their respective Kalaitzidakis et al rankings are given in parentheses), which pick up key general policy journals, plus two illustrative topical and important policy fields: the environment and climate change, and population demographics and ageing. *Brookings Papers on Economic Activity* (33); *Oxford Review of Economic Policy* (67); *National Institute Economic Review*; *Economic Policy* (42); *Energy Economics* (105); *Journal of Environmental Economic & Management* (59); *Environmental and Resource Economics* (85); *Journal of Population Economics* (53).

Figure 5a: Top 5 publications: number of articles

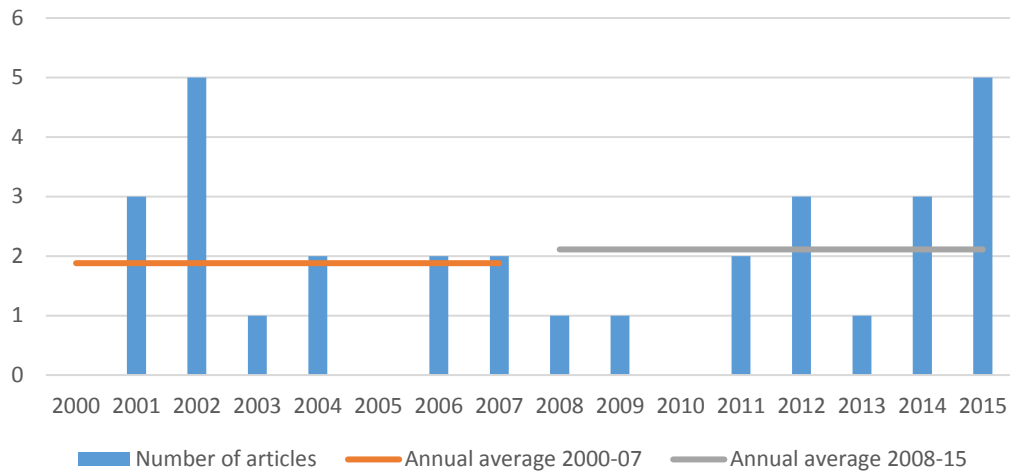


Figure 5b: Top 5 publications: number of pages

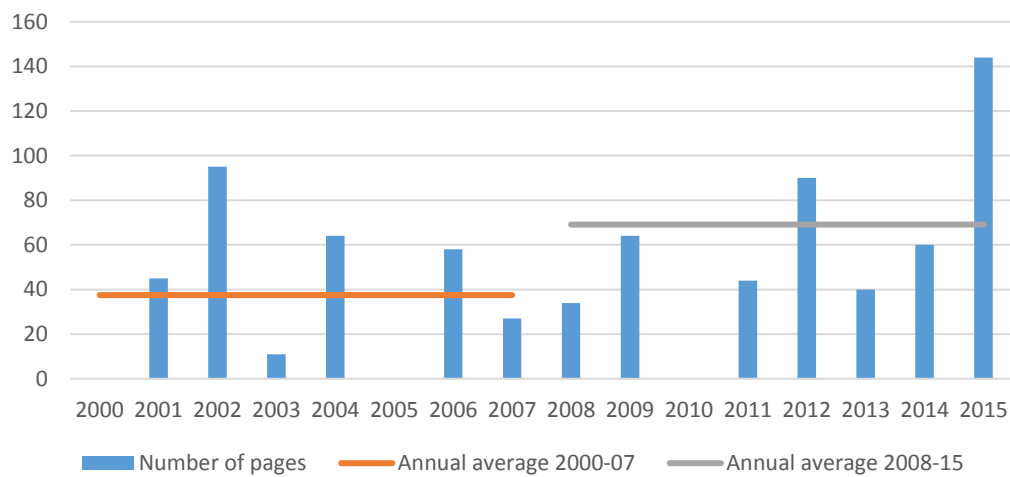


Figure 5c: Top 10 publications

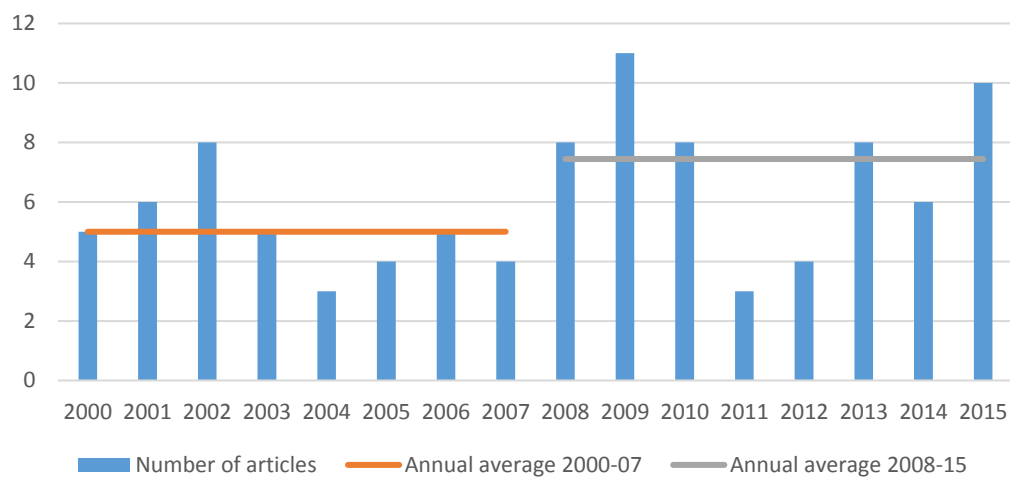


Figure 5d: Top 20 publications

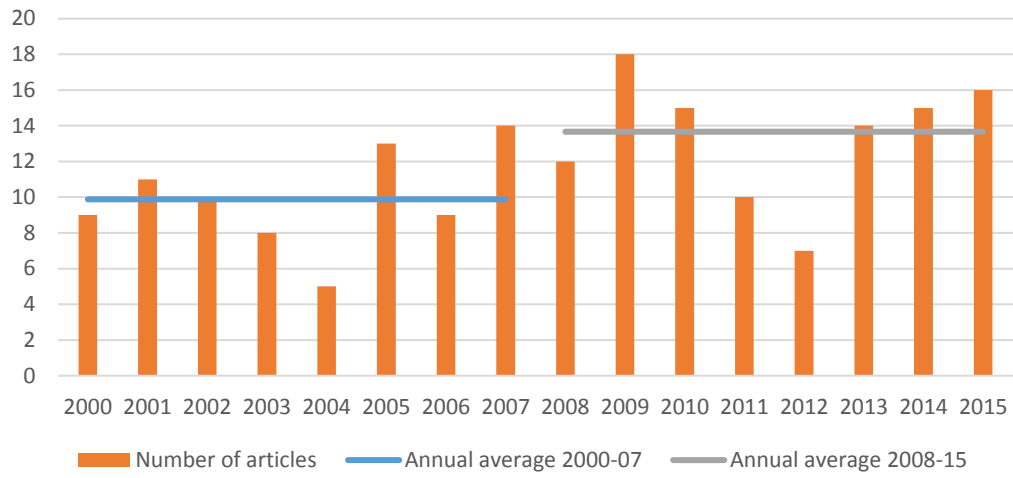
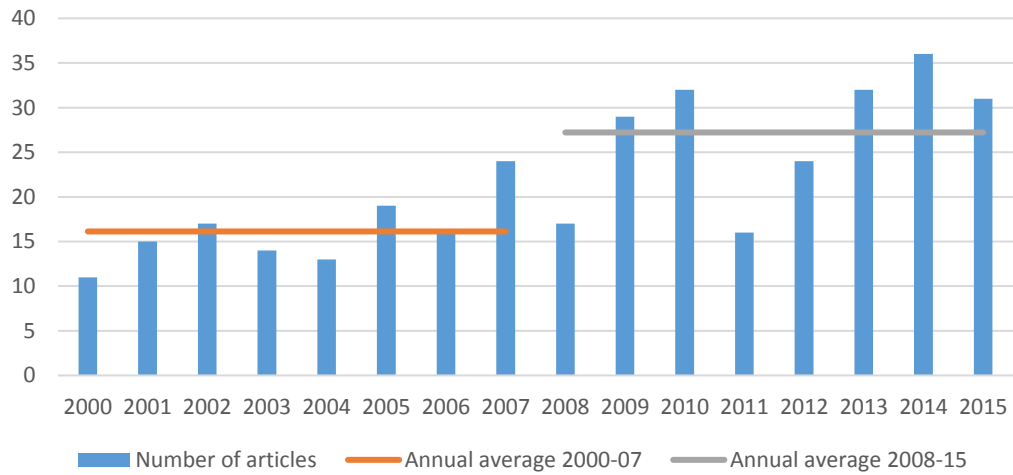
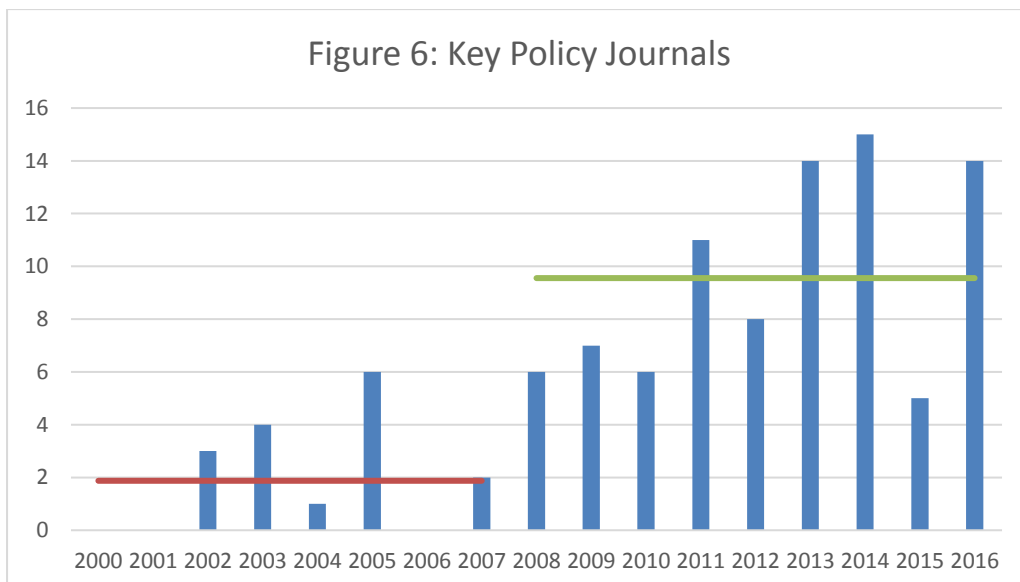
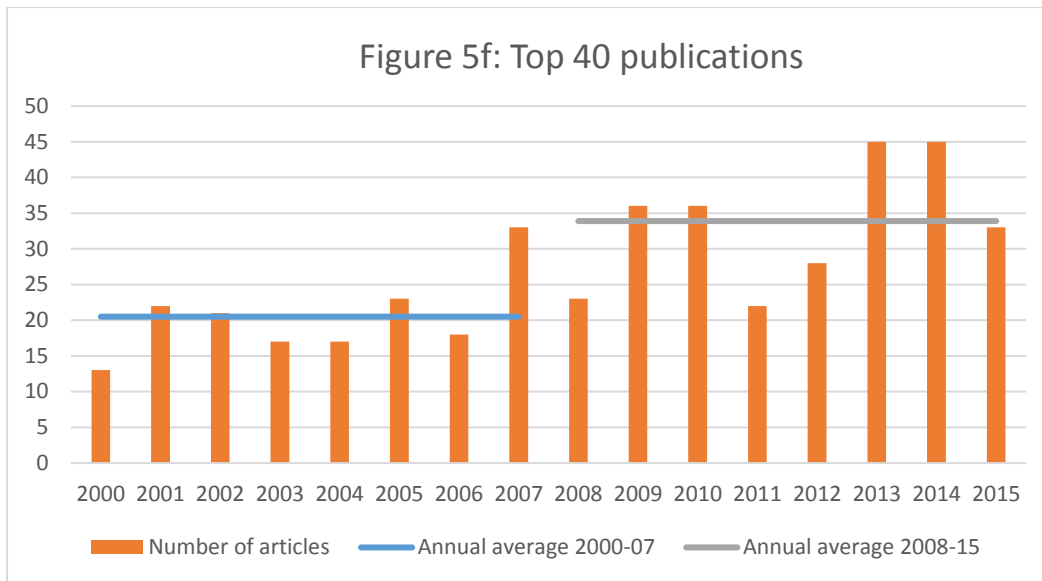


Figure 5e: Top 30 publications





Some other indicators of esteem and reputation:

Weak performance in RAE 2001, where no Scottish Economics department achieved above a 4, was a major catalyst for the original investment in SIRE. RAE 2008 saw a substantial improvement in performance. REF 2014, shows a further improvement, most dramatically at Edinburgh and St Andrews. With Edinburgh rising from 14th to 8th in the UK, and St Andrews from 28th to 15th in terms of overall average ranking. On the basis of research outputs, Edinburgh ranks 7th, St Andrews 10th and Glasgow 15th, with 80% or more of outputs classified as internationally excellent or world-leading. In terms of research environment, Edinburgh ranks ahead of Warwick and Cambridge in 6th place. It is significant that this substantial improvement in ranking has occurred against a background where other leading universities have been making major investments in economics.

SIRE Researchers include: the President of the Econometric Society, 2010; two Fellows of the British Academy; three Fellows of the Econometric Society; two Fellows of the European Economic

Association; a Foreign Honorary Member of the American Academy of Arts and Sciences; a Foreign Honorary Member of the American Economic Association; a member of the Executive Committee of European Economic Association; a member of the 'Women in Economics' Standing Committee of the European Economic Association; the President of the Royal Economic Society, 2015-2016; a Vice President (Life) of the Royal Economic Society; the Secretary General of the Royal Economic Society (2008-2015, a post held by J M Keynes from 1912-44); four past and three current Members of Council of the Royal Economic Society; Chairman, co-Director, Editorial Board member and former Managing Editor of the Review of Economic Studies (a top 5 Journal).

SIRE academics have been recognized in recent Honours lists: Anton Muscatelli was awarded a knighthood in 2017 for services to Economics and Higher Education; John Moore and David Ulph were awarded CBEs in, respectively, 2017 and 2016, John Beath and Ronald MacDonald OBEs in 2015, all for services to Economics.

Major invited lectures by SIRE Researchers: Manchot Lecture, University of Bonn, 2013; Berglas Lecture, Tel Aviv, 2012; Hurwicz Lecture, Econometric Society, 2009; Royal Economic Society Annual Public lecture, 2016.

Other major awards received by SIRE Researchers: Stephen A Ross Prize in Financial Economics, 2010; Philip Leverhulme Prize, 2011; British Academy's Wiley Prize, 2013; the Schumpeter Prize, 2008.

SIRE events have attracted many of the World's leading economists, including a number of Nobel Laureates, to Scotland. The growing ease with which we can attract such leading economists bears testimony to the growing international reputation of economic research within Scotland, as well as helping to further enhance that reputation. As well as many more focused events, which are reviewed in the series of SIRE Annual Reports, we have also been able to attract a number of major international conferences, notably: the 2010 European Economic Association Annual Congress, 2010; the Review of Economic Studies May Meetings, 2013; the European Workshop on General Equilibrium Theory, 2016; the European Winter meeting of the Econometric Society, 2016; and the Society For Economic Dynamics Annual Meeting, 2017.

Impact:

"The investment via SIRE has enhanced both the quality of economic research undertaken in Scottish Universities and also the interaction and interface with policy related research. The latter has been facilitated via a series of joint SIRE/SG policy forums which have brought together Government officials and academics to discuss key policy challenges and facilitate the sharing of academic insights and knowledge.

The policy forums which began in 2009 have covered a range of areas and have been successful in generating on-going dialogue. One specific example from the support for our Energy Modelling team where a successful SIRE event led us to establish a cross disciplinary Economics and Engineering Technical Advisory group on Energy and Climate Change involving a number of SIRE academics. This group has provided valuable assistance in enhancing our energy modelling capacity within Government." (Gary Gillespie, Scottish Government Director and Chief Economist, in email 9/12/2016).

This echoes the earlier comment from John Swinney MSP, the then Cabinet Secretary for Finance and Sustainable Growth:

“I am aware that SIRE is playing a key role in stimulating a real upsurge in economics research activity in Scotland and, even with its relative short period of existence, has made great strides in establishing Scotland’s reputation on the international stage. I also welcome the commitment of SIRE members to engage in a process of real knowledge exchange with the wider community in Scotland. In particular, I am aware that my own economists within the Scottish Government have benefited greatly from a series of joint workshops and lectures with SIRE members.” (John Swinney MSP, in letter dated 5 March 2010).