

**Institution: University of Sussex**

**Unit of Assessment: UoA 18 Economics and Econometrics**

## 1. OVERVIEW

Over the REF period, faculty numbers in the Department of Economics at Sussex have increased almost threefold from 11 to 27. We have implemented a strategic programme of targeted recruitment aimed at intensifying the quality and depth of our established research strengths in development, international trade, labour and education and quantitative economic history, and established a new research cluster in environment and energy. In so doing, we have created an invigorated Department with some of the brightest and best early-career economists and a strong core of experienced and respected senior academics providing research experience, leadership and improved research output.

Each of our research clusters is headed by at least one senior professor and consists of a varying mix of early-career researchers and more-established faculty. The clusters are flexible, with a collaborative culture that stimulates new and sustainable research ventures and the joint supervision of PGR students.

Our expansion strategy has been actively supported by the University's growth plan, which recognised the Economics Department's research strengths and international reputation in applied policy analysis with significant central investment, including the establishment of the new School of Business, Management and Economics in 2009. The School is highly profitable, which allows for all research activities to be well-funded and for a continuation of this expansion with further recruitment, in line with our vision to place Sussex among the very top applied-economics departments in the UK.

## 2. RESEARCH STRATEGY

Over the last five years we have generated a substantial cultural and reputational shift towards becoming an internationally recognised, research-prevalent applied-economics department with a clear sense of our research strengths and priorities and a focus on our impact on policy and people. We delivered a two-part strategy for achieving a culture of sustainable research excellence in our five research clusters: first, through the creation of a critical mass of carefully balanced research faculty and, second, by the development of a supportive and academically challenging organisational environment.

- **Creating a critical mass of research faculty**

We implemented a targeted recruitment drive aimed at combining promising early-career economists with a strong core of experienced senior academics. At the junior level, we have exploited our close links with academic economists in London and Oxford to recruit talented researchers (see box below). As we have built an increasingly research-focused department, our ability to attract high-calibre researchers has gone from strength to strength and, this year, we have been successful in recruiting excellent researchers from the North American market (Chari, PhD Yale and Pathania, PhD Berkeley).

At the senior level, changes have included the return of Winters from the Department for International Development (DfID) to lead the international trade cluster, the recruitment of Tol – a member of the Nobel Prize-winning climate panel – to develop the environment and energy cluster and Dolton, to strengthen the labour and education cluster. We have also secured the part-time appointments of Disney and Heyes – each with a strong track record in microeconomics and policy advice – to provide additional research leadership in the core areas of labour and education, and environment and energy respectively. This expansion has allowed

existing senior faculty to flourish and to take on a greater leadership role in the guidance and mentoring of junior faculty and PGR students. The prior existence of a strong team spirit within the Department facilitated the integration of new staff into a cohesive research group.

**Junior faculty recruited 2008–13**

Our junior recruitment began with the education specialist Telhaj just prior to RAE 2008, and continued with the appointments of Pelkonen, Hussain, Masella and Rosa Dias in labour and education, Bhattacharyya, Pathania and Chari (and Maertens who will arrive in 2014) to strengthen development economics, Borchert, Petropoulou and Harding who have joined our international trade cluster, MacKerron, who adds to environment and energy, and Moradi and Fagernas, who reinforce quantitative economic history.

This successful recruitment drive has been complemented by the creation of a supportive environment and organisation to foster research excellence. We have invested heavily in new infrastructure and facilities to enhance the research environment, including the move into the new Jubilee Building, a state-of-the-art working environment which has been instrumental in facilitating greater research interactions among faculty and PhD students through closer proximity, greater visibility and more attractive space for seminars and social exchanges. The Department is able to offer faculty competitive teaching commitments, generous financial support for research and a strong team ethos to which all faculty contribute. Alongside this we have strengthened provision for our PGR students including the introduction of a coursework requirement and sizeable studentships.

• **The success of our research strategy**

These changes have been ground-breaking for the Department in terms of its research activity, publication quality and knowledge exchange and have been instrumental in attracting the high-calibre faculty and PGR students to Sussex who will maintain and enhance our vision of research excellence (see box below for examples of output quality).

**Publication quality**

Indicators of quality include outputs in the *Review of Economics and Statistics* (Chari, Harding), *Economic Journal* (Disney, Harding, Masella, Telhaj), *AEJ Policy* (Chari, Pathania), *Journal of Public Economics* (Disney, Telhaj), *Journal of the European Economic Association* (Disney, Masella, Pelkonen), *Journal of Economic Perspectives* (Tol) and the *Canadian Journal of Economics* (Borchert, Petropoulou).

• **The strategy in RAE 2008**

In 2008 the Department set out a research strategy governing the subsequent five years. We have exceeded all of the expectations we had at that time and explain below how we met these objectives, detailing the corresponding outcomes:

| RAE 2008 Strategy  | Demonstration of Delivery  |
|--|--|
| <i>Expand the junior faculty base. Future recruitment will be at the early-career level.</i>                                   | We have fully delivered on this commitment and moved well beyond these recruitment objectives (see the box above on recruitment).  |
| <i>Secure core external research-centre funding at Sussex and increase the number of faculty submitting grant applications</i> | Very quickly the aspirations of the Department moved beyond this objective. Some £1.9m in research funding was secured across a range of projects and sources. See Section 4 on income for more details. |

*Increase the number of high-quality PGR students recruited annually*

The PhD programme itself has been strengthened considerably with the award of an ESRC Doctoral Training Centre to Sussex in 2010, the introduction of taught research-training modules, and the implementation of a generous PhD Studentship scheme. This has made our PhD much more attractive so that we now host 55 high-quality PGR students in Economics.

- **Strategic aims for the next five years**

An emphasis on applied policy is the driving force underpinning our research strategy for the future, and the changes implemented so far place Economics at Sussex at the frontier of applied research. Our aim is to become one of the very top applied-economics departments in the UK over the next five years. Building on our rapid expansion since the last RAE, we shall continue to invest in our research capability. Our key aims will be to develop the newly invigorated Department into a mature, influential and sustainable research environment, and to invest in new research skills that are complementary to our applied research strengths.

- ***Develop a mature, influential and sustainable research environment***

We will seek to achieve this with a further strengthening of leadership through recruitment in our core areas and the continued investment in talented early-career researchers. This continued expansion is supported by the University's growth ambitions and, whilst our medium-term objective is of further modest recruitment, more immediately we are seeking to make appointments to two further Professorial positions and two junior posts in 2013/14. The senior positions will provide further research leadership in our existing fields of expertise and accelerate the development of our early-career faculty into more mature researchers, whilst the recruitment of promising early-career researchers will provide even more opportunities for interaction, innovation and collaboration, offering an increasingly attractive research environment within the Department. Examples of new areas of collaborative work that have already emerged amongst faculty as a result of the strategy include that of Harding and Mackerron who are working on Deforestation in Brazil, Dolton and Pathania who are investigating NHS payment incentives and Borchert, Petropoulou and Winters who are developing an extension of the Grossman–Helpman model of the political economy of protection.

We are beginning a consolidation of our research-led culture through an active promotion strategy that rewards success and provides strong incentives for excellence in research. We have implemented a proactive staffing strategy, supported at the University level, whereby faculty are assisted by a managed transition into greater leadership roles. Given that a number of our junior faculty have attained significant research achievements prior to joining Sussex we anticipate a swifter promotion pathway as they develop leadership skills that support other faculty and PGR students. The real possibility to move into senior positions within the Department creates a progressive and aspirational environment where junior faculty identify with more-advanced role models and see clear paths for career progression.

- **Investment in complementary research skills**

Whilst we currently have very clear strengths in applied policy analysis, we are aiming to evolve into a department with a broader range and enhanced balance of complementary research skills. As a first priority we intend to build on the appointments of Heyes and Petropoulou and appoint further expertise in economic theory as applied to our core areas. The appointments of Masella and Pathania, who have experience in experimental work, of MacKerron, who has expertise in real-time, high-volume primary-data collection and of Rosa Dias and Chari, who have expertise in randomisation techniques, have given us a more diversified set of investigative skills. We will further strengthen these new areas of applied research techniques and, as a priority, will seek to appoint additional expertise in micro-econometrics.

## Environment template (REF5)

As this research strategy develops, new and exciting research initiatives are beginning to emerge; for instance Pathania's work with the food-delivery company, Just Eat, looking at the impact of food labelling on obesity, Rosa Dias' and Chari's work on incentives for healthcare workers in Nigeria, and Borchert's work on trade barriers in services.

- **Monitoring research strategy**

Research strategy is overseen by the senior academics within the Department but the identification of new avenues of research originates from the ground up. Senior faculty meet frequently to monitor progress, both overall and within the core research clusters, and scrutinise the progress of strategy through a number of processes such as active mentoring, a School-level evaluation of research plans and the oversight of income targets and PGR progress. More details of these processes are shown below.

### 3. PEOPLE

#### Staffing Strategy and Staff Development

- **Recruitment strategy**

We have been very successful in achieving our objective of attracting high-quality research-active faculty at both the junior and the senior levels. We have accomplished this through a judicious use of recruitment networks such as the RES job market meetings and current personal research contacts, an intensive and rigorous appointment process and, perhaps the most importantly, through being able to offer potential candidates an exciting vision of continuing growth and excellence.

- **A research excellence culture**

Through professional development and staff-management practices, we are continuing to generate a strong team ethos which fosters collaboration and supports research performance. For example, there is a clear expectation that faculty should be present in the Department a majority of the time and they are actively encouraged to provide discussion and critique of each other's outputs and funding applications. Weekly internal and external seminars and a weekly PhD seminar are very well supported. The Head of Department leads an annual research 'away-day' designed as a catalyst for research linkages and to facilitate knowledge exchange amongst faculty. The collaboration between Harding and Mackerron on de-forestation and a collaboration between Dolton, Reilly and Mackerron on well-being arose from our most recent research day in July 2013.

- **Professional development**

The Department offers support for professional development in a variety of ways, with an emphasis on early-career researchers. For example, we provide generous financial support for attendance at high-quality conferences (see box below). We encourage research collaborations within and outside Sussex through a mixture of financial support and relief from other contractual arrangements such as teaching and administration. We also support attendance at specialist training courses to boost skills, for example econometrics, software, data usage. Departmental funds are used to attract a regular flow of high-class visitors who are encouraged to interact with faculty and PGR students – e.g. Jeff Smith (Michigan), Monique De Haan (Copenhagen) and Martin Ravallion (Georgetown).

#### Conference support

Sussex has been well represented by faculty at high-profile conferences: Bhattacharyya presented at the AEA conference 2012, Telhaj and Dickens at the Society of Labor Economists in 2008 and 2010, Hussain at the NBER summer workshop 2012, Pelkonen at the IZA/World Bank in 2012, Borchert at the ITC-World Bank, and Borchert, Dickens, Dolton, McKay, Pelkonen, Petropoulou and Winters at recent Royal Economic Society conferences.

**Environment template (REF5)**

- ***Mentoring***

We have an active mentoring process whereby faculty are assigned to a senior member of staff who oversees progress and supports each mentee in setting and achieving high personal research goals. Regular meetings establish agreed research targets across a range of outputs including publications, research income and PGR supervision. Concerns raised by faculty are dealt with quickly so as to remove any obstacles to research productivity. This is also reinforced at the School level by faculty completing an annual research plan that is discussed with the School's Director of Research and Knowledge Exchange. Junior faculty also have frequent probation meetings with the Heads of Department and School.

- ***Leadership and involvement***

A regular flow of information between junior faculty and the senior professoriate occurs through a range of formal and informal channels, including Department meetings, informal lunch meetings and regular reading groups. The senior leadership meets frequently to assemble the ideas that arise from these interactions and to ensure that the overall research strategy remains responsive and capitalises on the energy of the early-career researchers.

- ***Equality of opportunity***

Backed by the University, the Department is active in working towards the equality of opportunity in both recruitment and staff management. We do so not only in recognition of individual staff needs but also in accordance with our long-term aims, as this equality supports the diversity that we want to achieve, increases people's commitment to the University and contributes to the longer-term productivity and success of the Department. Faculty have recently taken periods of leave for maternity (3 cases), paternity (2 cases) and parental leave (1 case), and to cover periods of long-term illness (2 cases). As a growing Department we anticipate, in the future, a much greater emphasis on the provision of sabbatical leave and teaching relief.

**Research students**

We provide a first-rate doctoral training programme focused on providing high-quality supervision, facilities and training to nurture excellent research economists. The award to Sussex of the ESRC-DTC in 2010 and the introduction of generous PhD studentships have been instrumental in attracting outstanding PGR students in recent years. The programme is heavily over-subscribed, enabling high entry standards to be set. In addition to ESRC funding (e.g. Malomo, Sandi) many students bring prestigious scholarships (currently 2 CONCAYT, 2 Commonwealth scholarships, 1 EU scholarship). Candidates originate from a wide range of countries across Europe, Africa, Asia and Central/South/North America, to form a lively, mutually supportive community that is an integral part of the Department.

In addition to formal supervision arrangements, which generally comprise of a senior and a junior faculty member, PGR students are also assigned a mentor, often an advanced PGR candidate. A taught component in Year 1 focuses on advanced econometrics and research skills and includes generic academic and employability skills (e.g. presentation techniques, the refereeing process). This is delivered by current research faculty and supplemented with external expertise (e.g. Jeff Smith (Michigan), Michael Stops (IAB)). Additionally, PhD students also receive support to attend specialist training, such as CEMMAP (Xiao, Sandi), IZA Summer Schools (Salardi, Leone), and Barcelona GSE Summer School (Egger, Salardi). The PGR convenor arranges a regular forum for PGR students to voice concerns, and PGR representatives provide formal input through Department meetings.

### Excellence in PGR students

A number of our former PGR students are in academic positions (e.g. Perge at the Earth Institute, Lovo at the Grantham Institute, LSE and published in the *American Journal of Agricultural Economics*). Others hold posts in national and international organisations (e.g. Iacovone is a Senior Economist at the World Bank and has publications in the *EJ*, *Journal of Development Economics* and *Journal of International Economics*). Other notable outputs include Leone (AER), Salardi and Leone (WBER) and Montalbano (World Development). Szczurek (recent MSc and PhD) has just been appointed as the Polish Finance Minister.

We fund attendance for PGR students to present their work at a minimum of one national and one international conference and also provide support for fieldwork activity. Students nearing completion present at our annual PhD conference, supported by all faculty, PGR students and an external academic – recent examples include Dercon (Oxford) and Bhalotra (Bristol). For those entering the job market this provides excellent preparation for the next phase of their career. The PhD convenor acts as placement officer in a number of ways; students appear on Department web pages and a PGR alumni network assists current students to plan for their future and for research visits during their PhD.

### Support for doctoral students

Hirvonen and Silwal have been supported to present at the RES, Isaza-Castro at SOLE, Ramasubramanian, Hirvonen and Korkeala at the North Eastern Development Conference, Piza at the European Economic Association, Leone, Perge at the CSAE, and Salardi and Piza at IZA/World Bank. Examples of support for field work activity include Ramasubramanian in India, Di Ubaldo in Slovenia, Perge in Bolivia.

## 4. INCOME, INFRASTRUCTURE AND FACILITIES

### Research income

Given that many of our recent appointments are junior faculty, the Department has an impressive record of research-income generation over the past five years that has enabled it to produce high-quality outputs and so contribute to the wider research base. Since 2008, total research income accruing to the Department is £1.91million. This income is spread over a number of different research projects and sources and has facilitated high-quality research outputs, non-academic impact and PGR support. Notable examples include:

- Newell's ESRC-funded project which digitised three British household expenditure surveys from the 20<sup>th</sup> Century, and resulted in four academic outputs, including *OEP* and *The Economic History Review*, and
- Litchfield, who raised £152k from the EU for a micro-level analysis of conflict resulting in outputs in the *Journal of Agricultural Economics* and an OUP book.

In addition, interactions with policy-makers that arise through research projects have directly facilitated policy impact:

- Dickens' work for the Low-Pay Commission has influenced minimum-wage policy and led to quality outputs in *Economica*, *Journal of the Royal Statistical Society*.

We fully expect research income to increase further as our new faculty are successful in securing funding to support their work. Indeed, some of this is happening already. In the past year, Tol has obtained £290k from two EU projects to examine climate change and migration and the impact of rising sea levels, both projects supporting a PhD student. Dolton has secured a £200k NHS-funded

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project to examine GP patient referrals and, in recognition of the academic contribution of his previous ESRC-funded research on living standards, Newell has been awarded a further £1m+ from the ESRC to study global economic inequality.

The Department and School actively encourage faculty to generate research income. Senior faculty provide guidance and support for the many early-career researchers through the various stages of a research project. In addition, an expert from Research and Enterprise Services sits within the School to provide on-hand support. Income generation is encouraged through the creation of Research Incentive accounts for faculty, which provide an annual contribution of £2,000 plus 10 per cent of any research overheads to be used for personal research expenses. Faculty also have the facility to use research income to replace teaching and administrative duties.

**Infrastructure and facilities**

As outlined above, the University's investment in the Department in terms of new faculty has been complemented with an associated investment in infrastructure and facilities, highlighted by the move to the new Jubilee Building. Faculty are provided with modern, individual offices and PGR students with individual workspaces. Both are largely co-located on one corridor with the goal of promoting interaction among faculty and PGR students. Faculty and PGR students are all provided with high-quality facilities: a pc/laptop, excellent IT and printing facilities, the requisite software packages and electronic subscription to all mainstream economics journals. This investment in new infrastructure has made Sussex an attractive and supportive place in which to work and which is invaluable in enabling us to attract and retain highly motivated researchers to build our evolving research vision.

**5. COLLABORATION AND CONTRIBUTION TO THE DISCIPLINE OR RESEARCH BASE**

Through strategic recruitment and the encouragement of external projects we have been able to extend our collaborative links with academic economists in top national and international institutions. We have particularly strong external links with London and Oxford. For example:

- Telhaj has long-standing collaborations with Gibbons (LSE), leading to outputs in the *EJ* and the *Journal of Public Economics*; and
- Bhattacharyya collaborates with Collier (Oxford), resulting in a paper in *OEP*.

Faculty also have significant international collaborations:

- Dolton with Smith (Michigan);
- Tol with Weyant (Stanford); and
- McKay with Tarp at WIDER.

Many junior faculty bring existing collaborations. For instance:

- Harding with Javorcik (Oxford);
- Masella with Clots-Figueras (Carlos III);
- Pathania with Currie and others (Berkeley); and
- Chari with the Rand Organisation.

These collaborations have led to top-quality outputs in journals such as the *REStat*, *EJ*, *JEEA*, *AEJ: Economic Policy*. Junior faculty are also developing new partnerships:

- Rosa-Dias with Vera-Hernandez (UCL) and Firpo (Sao Paolo);
- Borchert with Anderson (Boston); and
- Bhattacharyya with Williamson (Harvard).

The Department has made important contributions to the discipline often through close links with

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policy-makers. Faculty have acted as advisors for:

- the Armed Forces Pay Review Body (Dolton);
- the NHS Pay Review Body (Disney);
- Winsor's Review of the Police (Disney);
- the US Environmental Protection Agency (Tol – see impact case study); and
- the Low-Pay Commission (Dickens – see impact case study).

Winters (see box) and Litchfield took senior roles at DfID. McKay was associate director of the DFID Chronic Poverty Research Centre until 2011.

**Evidence of high esteem**

*Winters* received a CB in the Queen's Jubilee Honours list in 2012 for services to international development. He was Chief Economist at DfID (2008–11) and Research Director at the World Bank (2002–07) and is Chairman of the Global Development Network.

*Tol* is a shared winner of the Nobel Peace Prize (2007), having been a member of Working Groups I, II and III of the Intergovernmental Panel on Climate Change (IPCC). He is convening lead author for the 5<sup>th</sup> Assessment of Working Group II of the IPCC.

The developing research culture has enabled a greater contribution to the wider research base than ever before. Newell's ESRC project will deposit three previously misplaced expenditure surveys with the UK Data Archive (UKDA). Moradi will also deposit with the UKDA unique historical data collected on colonial army recruits in Africa. Borchert contributed to the development of the Global Services Trade Restrictions Database, which has become an important tool for trade researchers. More locally, Barrow, Litchfield and Newell recently completed a *pro bono* evaluation for the charity NCDA.

Faculty also make contributions through editorship: *The World Trade Review* (Winters), *Energy Economics* (Tol) and *Economics Systems* (Newell, Reilly);

through editorial boards: *Environmental Science and Policy* (Tol), *Climate Change Economics* (Tol), *World Development* (Winters), *The World Economy* (Winters);

and acting as guest editors: *Journal of Development Studies* (McKay), and *Research on Economic Inequality* (Rosa-Dias).

**Concluding remarks**

The paradigm shift in the Department of Economics at Sussex over the past few years has been remarkable. The Department now has a palpable momentum of research activity. With strong backing from the University for further expansion, we are delighted to be in a position of strength that has equipped us with the resources, sense of purpose and support to ensure Sussex takes its place amongst the best applied-economics departments in the UK.