Job Description

Summary

Job title	Research Programmer and Data Analyst for Food System Economic Cost Modelling
Division	Social Sciences
Department	School of Geography and the Environment
Location	South Parks Road, Oxford OX1 3QY
Grade and salary	Grade 7: £35,308 - £43,155 p.a. Depending on qualifications and experience A less experienced candidate may be appointed at Grade 6 (£32,332- £38,205 per annum), with a commensurate adjustment in either the essential criteria, responsibilities or duties.
Hours	Full time
Contract type	Fixed-term (24 months)
Reporting to	Steven Lord
Vacancy reference	168855
Additional information	Applications are particularly welcome and encouraged from women, black, and minority ethnic candidates, who are under-represented in posts in SoGE. SoGE are committed to equality and values diversity. The School of Geography and the Environment holds an Athena Swan Silver award in recognition of our commitment and success in addressing gender equality. The School of Geography and the Environment is committed to promoting a culture of equality, diversity, and inclusion in the workplace, including the undertaking of appropriate training as opportunities arise and/or when asked to do so.

The project

The Food System Impact Valuation Initiative (FoodSIVI) in the Environmental Change Institute (ECI) at the University of Oxford is an academic, business, and civil society initiative that researches the economic costs of the environmental, social, and public health impacts

of food systems and the economic potential of food system transformation. FoodSIVI supports public and private dialogue and decision-making by providing modelling, analysis, and advice on the costs and benefits of food system transformation.

FoodSIVI is implementing a 4-year programme as part of *FoodCoST: Food Costing and Internalisation of Externalities for System Transition*, a projected funded by the EU and the UKRI under the EU Horizon scheme. FoodSIVI has also contributed modelling to the Food System Economic Commission and the Agrifood Economics Division of the United Nations Food and Agriculture Organization (FAO). The role provides an exciting opportunity to participate at the frontier of costing food system impact and network with leading international organisations working on the economics of food system transformation.

In collaboration with the partners of FoodCOST, FoodSIVI will adapt and extend models and datasets for the damage and mitigation costs of food system impacts and assess how the findings can be implemented to influence policy makers, investors, and consumers toward a lower impact food system Case studies in the FoodCOST project examine taxation, tariffs, subsidies, financial reporting, land-use and dietary change.

The role

The Research Programmer and Data Analyst will play an important part in the delivery of the FoodCOST project and FoodSIVI programme. The role reports to Dr Steven Lord and Prof Michael Obersteiner in the Environmental Change Institute at the University of Oxford. The post holder will be a member of the ECI Food Systems Transformation research group.

The main activities for this post are to support food system economic modelling capability in the ECI by adapting, extending and running models built in Python and/or R, and applying the modelling to assist delivering the University of Oxford's tasks under the FoodCOST project through collaborative research with internal and external partners. The role will apply knowledge and experience of data analysis and scientific programming to initially manage and adapt an existing public health model on dietary change and its implementation in a FoodCOST case study for financial reporting of health impacts. There is scope to extend the programming and analysis to integrate in-house environmental cost models and participate in integrated studies with external modelling partners.

The post holder will need to be proactive, working both independently and as part of a team, whilst managing and prioritising a busy workload.

Responsibilities

1. Manage own research, programming tasks, and administrative activities within guidelines provided by senior colleagues. This involves managing activities such as small-scale project management, data storage, version control, model documentation, and coordination with multi-site research teams to meet project timelines.

2. Data analysis and contribution to modelling of the economic costs of food system impacts.

3. Manage models and datasets on economic costs to be used internally and externally, adapting existing research methodologies and materials.

4. Engage in collaborative projects with colleagues in partner institutions within guidelines provided by senior colleagues

5. Contribution to research publications, book chapters and reviews

6. Deliver case study under the FoodCOST project within guidelines provided by senior colleagues

7. Support the content of project websites and communications.

8. Represent the research group at external meetings/seminars.

9. Contribute to and enhance the academic life and community of the SoGE including taking on citizenship roles.

Selection criteria

Essential selection criteria

- Hold, a PhD/DPhil in computer science, mathematics, or public health economics (Grade 7). Be close to completion of a relevant degree in computer science, mathematics, or public health economics (Grade 6).

- Experience in data management and scientific programming. Experience with Python or R programming languages and working with spatial datasets highly preferred.

- Experience in data and statistical analysis. Knowledge of machine learning models highly preferred.

- Ability to manage own research and associated activities.

- Ability to undertake independent research into modelling the economic costs of food system impacts (Grade 7).

- Ability to contribute ideas for new research projects and research income generation (Grade 7)

- Excellent communication skills, including the ability to write for publications, document open-source datasets, present research results, and represent the research group at meetings.

- Proactive, working both independently and as part of a team, whilst managing and prioritising a busy workload.

- Is committed to advancing diversity and inclusion.

Desirable selection criteria

- Journal or report publications in relevant area.

- Research or programming experience in environmental modelling, public health economics, climate economics, or food systems.

- Experience with machine learning models.

- Experience in statistical modelling and Monte Carlo simulation.

Pre-employment screening

Standard checks

If you are offered the post, the offer will be subject to standard pre-employment checks. You will be asked to provide: proof of your right-to-work in the UK; proof of your identity; and (if we haven't done so already) we will contact the referees you have nominated. You will also be asked to complete a health declaration so that you can tell us about any health conditions or disabilities for which you may need us to make appropriate adjustments.

Please read the candidate notes on the University's pre-employment screening procedures at: https://www.jobs.ox.ac.uk/pre-employment-checks

About the University of Oxford

Welcome to the University of Oxford. We aim to lead the world in research and education for the benefit of society both in the UK and globally. Oxford's researchers engage with academic, commercial and cultural partners across the world to stimulate high-quality research and enable innovation through a broad range of social, policy and economic impacts.

We believe our strengths lie both in empowering individuals and teams to address fundamental questions of global significance, while providing all our staff with a welcoming and inclusive workplace that enables everyone to develop and do their best work. Recognising that diversity is our strength, vital for innovation and creativity, we aspire to build a truly diverse community which values and respects every individual's unique contribution.

While we have long traditions of scholarship, we are also forward-looking, creative and cutting-edge. Oxford is one of Europe's most entrepreneurial universities and we rank first in the UK for university spin-outs, and in recent years we have spun out 15-20 new companies every year. We are also recognised as leaders in support for social enterprise.

Join us and you will find a unique, democratic and international community, a great range of staff benefits and access to a vibrant array of cultural activities in the beautiful city of Oxford.

For more information, please visit www.ox.ac.uk/about/organisation.

School of Geography and the Environment

The School of Geography and the Environment (SoGE) is a dynamic, diverse, interdisciplinary department at the University of Oxford combining natural and social science research interests and analytical skills, underpinned by geography's tradition of working in many different situations and contexts. The School is internationally recognized for the quality of its teaching, research and wider engagement across the breadth of human

geography, physical geography and environmental studies. Based within the Social Sciences Division, the School incorporates three affiliated research centres as well as Geography: the Environmental Change Institute (ECI), the Smith School of Enterprise and Environment (SSEE), and the Transport Studies Unit (TSU).

The School is based partly within the Oxford University Centre for the Environment (OUCE) building and partly in the Dyson Perrins building, which was completely refurbished in 2022. The School's physical location enables us to easily connect with many academic departments and organisations across the University, and we collaborate with many of them. For example, the School is an active participant in fostering the Oxford University Networks for the Environment (ONE), which links up over 1000 individuals within the University around the themes of Biodiversity, Climate, Energy, Food and Water.

Our research spans issues related to the environment, climate change, energy, transport, development, geopolitics and cities. The School's research portfolio totalled approximately £105million across more than 170 research projects in 2021/22, from a wide variety of funders.

Much of this work is collaborative, and we currently estimate that research with our partners takes place in over 70 countries across the globe. We aim to contribute to the common good, and many of our researchers actively engage in advising local, national and international organisations; in giving written and oral contributions to government consultations both locally and nationally; and in engaging with others through policy, partnerships, business and social enterprise.

The School also provides world-class, multidisciplinary teaching. Our Undergraduate Honour School gives undergraduate students research-led teaching across the breadth of human and physical geography and environmental studies by internationally recognised academic staff. Two hundred and fifty graduate students from a wide range of nationalities currently study for taught and research postgraduate degrees with us, in our International Graduate School. For more information the School please visit: http://www.geog.ox.ac.uk

The School is committed to supporting the career development of all its members. Everyone is encouraged to undertake professional training from the range offered by the School, the Division and the University's People, Organisation and Development Unit. The School has a mentoring scheme and all staff are encouraged to work with a mentor during their time at SoGE; academic staff are also encouraged to have regular meetings with the Head of School to plan their career progression.

Since 1973 the **Transport Studies Unit** has established an international research reputation in transport research. Based within the world-leading School of Geography and the Environment at the University of Oxford, the TSU approaches global transport challenges from social science and holistic perspectives. By advancing understandings of the systems, processes and practices that shape the way people and goods move, the TSU hopes to inspire and inform change towards a more sustainable, just and accessible transport system. Our position within Geography and the University fosters interdisciplinary collaboration with researchers in other parts of the University and based elsewhere.

From geography to engineering, energy research to science and technology studies, and beyond, the TSU draws on the latest relevant developments in various disciplines and research fields. Our core team of researchers come from various disciplinary backgrounds, bringing with them a range of insight and expertise which enriches our research practice. Most TSU staff are full-time researchers working on specific externally funded projects. In addition to the core staff, it also hosts a number of academic visitors working more

independently on cross-cutting issues. There is also an active group of international DPhil students working with individual staff.

The TSU has an excellent track record in collaborative projects. TSU researchers often works in partnership with colleagues in many UK universities, and has very active and well-established links with universities and research institutes across the EU, the Americas, Asia and Africa. They also work with partners from international agencies, transport policymakers, local authorities, businesses and industry, employers, non-governmental organisations, and activists.

For more information on the TSU please visit: http://www.tsu.ox.ac.uk

Since 1991, the **Environmental Change Institute** has worked alongside partners in government, business, academia and the community to understand environmental change and explore possible responses to the risks and opportunities it poses. Promoting an interdisciplinary approach, ECI explores sustainable solutions to global problems ensuring a fairer and more equal world for people today and in the future.

ECI has over 100 academics and researchers working around the world, establishing itself as an active and influential player in environmental change science. With a well-established track record in relation to Infrastructure, climate, energy, ecosystems, food, land use governance and water.

ECI is a leading player in a number of large research activities. In 2022 there are over 80 research projects totaling over £57 million funded through the UK's research councils and charitable foundations and trusts. We are proud of all our work but of particularly note we host the multi-agency UK Centre for Research into Energy Demand Solutions (CREDS), understanding the role of energy demand change in accelerating the transition to a zero carbon energy system. As part of Oxford University's strategic research Oxford Net Zero is an interdisciplinary research initiative working to track progress, align standards and inform effective solutions in climate science, law, policy, economics, clean energy, transport, land and food systems and greenhouse gas removal and storage.

In addition, The Oxford Programme for Sustainable Infrastructure Systems (OPSIS) is at the forefront of research and education to enable sustainable and resilient infrastructure. While the Leverhulme Centre for Nature Recovery Centre aims to investigate how to halt and reverse ongoing nature and biodiversity loss, by understanding how implement and finance nature recovery that is scalable, effective and socially just.

The ECI is also home to the MSc in Environmental Change and Management, the School's first taught postgraduate masters 'programme, established in 1994. Through this MSc the ECI have successfully trained over 700 upcoming environmental leaders who comprise a lively and increasingly influential alumni community. For more information on the ECI please visit: http://www.eci.ox.ac.uk

The Smith School of Enterprise and the Environment (SSEE) was established at the University of Oxford in 2008 with a generous benefaction by the Smith family. We bring enterprise – public and private - together with world-leading teaching and research to achieve global net-zero emissions and sustainable development. Located within the internationally top-ranked School of Geography and the Environment, we work in close collaboration with leading academics across Oxford and beyond.

Decisions made this decade will determine the future of humanity and the planet. To stop the climate crisis, we need to shift global economic and financial systems towards sustainability. The Smith School's approach combines academic excellence with real-world impact. Our

research shapes business and government policy and practice. We offer innovative evidence-based solutions to the environmental challenges facing humanity.

We apply expertise in economics, finance, business and law to tackle environmental and social challenges in six areas: water, climate, energy, biodiversity, food and the regenerative economy.

We equip the next generation through undergraduate and graduate teaching as part of the top-ranked School of Geography and the Environment. SSEE's new master's course in Sustainability, Enterprise and the Environment (MSc SEE) is already one of the most applied to at Oxford. Our executive education programmes empower business leaders and policy-makers throughout the world to take action.

SSEE's Advisory Board, Business Fellows and our wide-ranging external partnerships bring together experts from industry, consultancy, governments and NGOs to achieve the vision of a cleaner, fairer and more prosperous future

Social Science Division

The University's academic departments and faculties are organised into four large groups, known as Academic Divisions (Social Sciences, Mathematical, Physical and Life Sciences (MPLS), Medical Sciences, and Humanities). The academic divisions are responsible for academic oversight of the teaching and research of their constituent departments and faculties, for strategic and operational planning, and for personnel and resource management. The Head of the Social Sciences Division is Professor Timothy Power, who is a member of the University's Council.The Social Sciences Division is a world-leading centre of research and education in the social sciences. The social sciences at Oxford are distinctive for both their depth and breadth, with activity spanning fourteen departments and faculties and one cross-divisional unit. (These are as follows: Law, the Saïd Business School, Economics, Politics and International Relations, the Blavatnik School of Government, the School of Anthropology and Museum Ethnography, International Development, Sociology, Social Policy and Intervention, the Oxford Internet Institute, Archaeology, the School of Interdisciplinary Area Studies, Education, the School of Geography and the Environment and the Oxford Martin School.) Interdisciplinary links within and beyond the university are strong, extending to the humanities, natural sciences, and medical sciences.

Academic and research staff and research students are engaged in world-leading research that challenges current ideas and theories and is tackling some of the major challenges facing humanity, such as sustainable resource management, migration, governance, poverty and development, and justice. REF 2014 confirmed Oxford as the UK powerhouse for research in the social sciences, where Oxford accounted for more world-leading (4*) research than any other institution, across the social sciences units of assessment to which it made submissions. The division has an extensive portfolio of external funders and collaborators, with competitively-awarded external research income exceeding £40million per year. Researchers in the division engage actively beyond academia and their research has influence in many spheres from innovation in public policymaking to practitioner communities such as law, business, education, social welfare and NGOs.

The division also delivers an exceptional range of high quality educational programmes (undergraduate, postgraduate taught and postgraduate research), all of which are underpinned by the innovative research being undertaken by our academics. Programmes range from those at the interface of the natural sciences, through to professionally-oriented provision in areas such as business, law and education. The division is home to several of Oxford's most widely recognised teaching programmes, such as Philosophy, Politics and

Economics (PPE); the BCL; the MPhils in International Relations, in Economics, and in Development Studies; the MBA and EMBA; and the nationally regarded PGCE.

For more information please visit: http://www.socsci.ox.ac.uk/

How to apply

Applications are made through our e-recruitment system and you will find all the information you need about how to apply on our Jobs website https://www.jobs.ox.ac.uk/how-to-apply.

Your application will be judged solely on the basis of how you demonstrate that you meet the selection criteria stated in the job description.

As part of your application you will be asked to provide details of two referees and indicate whether we can contact them now.

You will be asked to upload a CV and a supporting statement. The supporting statement must explain how you meet each of the selection criteria for the post using examples of your skills and experience. This may include experience gained in employment, education, or during career breaks (such as time out to care for dependants).

Please upload all documents **as PDF files** with your name and the document type in the filename. All applications must be received by **midday** UK time on the closing date stated in the online advertisement.

Information for priority candidates

A priority candidate is a University employee who is seeking redeployment because they have been advised that they are at risk of redundancy, or on grounds of ill-health/disability. Priority candidates are issued with a redeployment letter by their employing department(s).
If you are a priority candidate, please ensure that you attach your redeployment letter to your application (or email it to the contact address on the advert if the application form used for the vacancy does not allow attachments).

If you need help

Help and support is available from: https://hrsystems.admin.ox.ac.uk/recruitment-support
If you require any further assistance please email recruitment.support@admin.ox.ac.uk.
To return to the online application at any stage, please go to: www.recruit.ox.ac.uk.
Please note that you will receive an automated email from our e-recruitment system to confirm receipt of your application. **Please check your spam/junk mail** if you do not receive this email.

Important information for candidates

Data Privacy
Please note that any personal data submitted to the University as part of the job application process will be processed in accordance with the GDPR and related UK data protection legislation. For further information, please see the University's Privacy Notice for Job Applicants at: https://compliance.admin.ox.ac.uk/job-applicant-privacy-policy. The University's Policy on Data Protection is available at: https://compliance.admin.ox.ac.uk/data-protection-policy.

The University's policy on retirement

The University operates an Employer Justified Retirement Age (EJRA) for all academic posts and some academic-related posts. The University has adopted an EJRA of 30 September before the 69th birthday for all academic and academic-related staff in posts at **grade 8 and above**. The justification for this is explained at: https://hr.admin.ox.ac.uk/the-ejra

For **existing** employees, any employment beyond the retirement age is subject to approval through the procedures: https://hr.admin.ox.ac.uk/the-ejra

There is no normal or fixed age at which staff in posts at **grades 1–7** have to retire. Staff at these grades may elect to retire in accordance with the rules of the applicable pension scheme, as may be amended from time to time.

Equality of opportunity

Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. No applicant or member of staff shall be discriminated against because of age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

Benefits of working at the University

Employee benefits

University employees enjoy 38 days' paid holiday, generous pension schemes, travel discounts, and a variety of professional development opportunities. Our range of other employee benefits and discounts also includes free entry to the Botanic Gardens and University colleges, and discounts at University museums. See https://hr.admin.ox.ac.uk/staff-benefits

University Club and sports facilities

Membership of the University Club is free for all University staff. The University Club offers social, sporting, and hospitality facilities. Staff can also use the University Sports Centre on Iffley Road at discounted rates, including a fitness centre, powerlifting room, and swimming pool. See www.club.ox.ac.uk and https://www.sport.ox.ac.uk/.

Information for staff new to Oxford

If you are relocating to Oxfordshire from overseas or elsewhere in the UK, the University's Welcome Service website includes practical information about settling in the area, including advice on relocation, accommodation, and local schools. See https://welcome.ox.ac.uk/
There is also a visa loan scheme to cover the costs of UK visa applications for staff and their dependents. See https://staffimmigration.admin.ox.ac.uk/visa-loan-scheme

Family-friendly benefits

With one of the most generous family leave schemes in the Higher Education sector, and a range of flexible working options, Oxford aims to be a family-friendly employer. We also subscribe to My Family Care, a service that provides practical advice and support for employees who have caring responsibilities. The service offers a free telephone advice line,

and the ability to book emergency back-up care for children, adult dependents and elderly relatives. See https://hr.admin.ox.ac.uk/my-family-care

The University has excellent childcare services, including five University nurseries as well as University-supported places at many other private nurseries.

For full details, including how to apply and the costs, see https://childcare.admin.ox.ac.uk/

Disabled staff

We are committed to supporting members of staff with disabilities or long-term health conditions. For further details, including information about how to make contact, in confidence, with the University's Staff Disability Advisor, see https://edu.admin.ox.ac.uk/disability-support

Staff networks

The University has a number of staff networks including the Oxford Research Staff Society, BME staff network, LGBT+ staff network and a disabled staff network. You can find more information at https://edu.admin.ox.ac.uk/networks

The University of Oxford Newcomers' Club

The University of Oxford Newcomers' Club is an organisation run by volunteers that aims to assist the partners of new staff settle into Oxford, and provides them with an opportunity to meet people and make connections in the local area. See www.newcomers.ox.ac.uk.