CANDIDATE BRIEF

Research Fellow in Dynamic Microsimulation for Health, School of Geography

Salary: Grade 7 (£38,205 - £45,585 p.a.)

Reference: ENVGE1249

Fixed-term for 30 months (To complete specific time limited work)

This role will be based on the university campus (with scope for hybrid working)

We are open to discussing flexible working arrangements

Research Fellow in Spatial Microsimulation for Health
School of Geography, Faculty of Environment

Are you an ambitious researcher looking for your next challenge? Do you have an established background in data science and interests in modelling the determinants of health? Do you want to further your career in one of the UK's leading research-intensive universities?

Policy Modelling for Health is a thematic pillar of the £35 million [Population Health Improvement UK (PHI-UK) network,](#) funded by UK Research and Innovation (UKRI), bringing together expertise and insight from across research, public health and community organisations. Its aim is to find innovative and inclusive ways to improve the health of people, places and communities and reduce health inequalities through the development and evaluation of long-lasting and environmentally sustainable interventions. **Policy Modelling for Health** comprises experts from six universities, local and national government, agencies, charities and citizen's groups who will develop computer models to show how tax, welfare, pensions and inheritance policies might affect health inequality outcomes to help policymakers understand their impacts on people in their area. It will incorporate wide-ranging insights into these models to make sure they answer the most pressing questions, inform real world decisions, and are relevant and inclusive across different groups in society. By doing so we will address the economic determinants of health and health inequalities through supporting the development and implementation of high-impact, established and innovative population-level policies using complex systems approaches to policy modelling.Policy Modelling for Health leverages insights and methods developed as part of prior major investments, including the [Systems Science in Public Health and Health Economics Research](#) (SIPHER) consortium.

You will lead on the maintenance and expansion of a dynamic microsimulation model [code base,](#) which you will use to develop policy models for population health. In addition, you will collaborate on the development of [synthetic population datasets](#) for use in dynamic policy models, with responsibility for developing metrics and indices from these data which reveal spatial and sub group health inequalities. You will collaborate widely with academic and other partners to shape research questions, disseminate findings and contribute to the evidence base informing health policy.

You will have a PhD in data science, computer science, health informatics, maths, engineering or a related highly numerate discipline, together with a strong background in applied data science. You will ideally have experience of modelling in a health context. You will have a positive attitude to collaborative research and the drive to

make a significant contribution to making this ground-breaking project a success.

What we offer in return

- 26 days holiday plus approx.16 Bank Holidays/days that the University is closed by custom (including Christmas) – That's 42 days a year!
- Generous pension scheme plus life assurance– the University contributes 14.5% of salary
- Health and Wellbeing: Discounted staff membership options at The Edge, our state-of-the-art Campus gym, with a pool, sauna, climbing wall, cycle circuit, and sports halls.
- Personal Development: Access to courses run by our Organisational Development & Professional Learning team.
- Access to on-site childcare, shopping discounts and travel schemes are also available.

And much more!

Main duties and responsibilities

- Taking the lead on development and maintenance of a dynamic microsimulation code-base, primarily written in Python and R;
- Leading on the development of indicators which relate to spatial and sub-group differences in health and its determinants;
- Collaborative development of transition models within the dynamic microsimulation framework which incorporate causal pathways identifed within the consortium;
- Contributing to the development of spatially representative synthetic datasets for input to dynamic microsimulation models;
- Generating and pursuing independent and original research ideas developing policy models for population health;
- Preparing papers for publication in leading international journals and disseminating research results through other forms of output, including policy briefings and web-based visualisations;
- Working both independently and also as part of a larger team of researchers, contributing to the effective functioning of this large and multidisciplinary consortium;
- Maintaining your own continuing professional development; and

- Contributing to the supervision of junior researchers and PhD students and acting as a mentor to less experienced colleagues.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

Qualifications and skills

Essential

- A PhD in data science, computer science, health informatics, maths, engineering or a related highly numerate discipline;
- A strong background and experience in applied data science;
- Strong expertise in Python and R (or demonstrable evidence of ability to learn if background is in other programming languages);
- Experience working with longitudinal data, preferably within a microsimulation framework;
- The ability to design, execute and write up research independently;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A proven track record of peer-reviewed publications in top-tier journals;
- Excellent communication skills, both written and verbal, with the ability to communicate your research at national and international conferences;
- A proven ability to work well both individually and as part of a team;
- A strong commitment to your own continuous professional development.

Desirable

- Experience of developing dynamic models within a health context;
- Experience communicating results with policy and other non-academic audiences;
- Experience developing systematic reviews.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Nik Lomax, Professor of Population Geography
Tel: +44 (0)113 343 3321
Email: n.m.lomax@leeds.ac.uk

Additional information

Please note: If you are not a British or Irish citizen, you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen, this may be your status under the EU Settlement Scheme.

Find out more about the Faculty of Environment.

Find out more about the School of Geography.

Our University
At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds and from across the world. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, those who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

The Faculty of Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

We are a campus based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our Working at Leeds information page.

Information for disabled candidates
Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our How to Apply information page or by getting in touch by emailing HR via hr@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.

Salary Requirements of the Skilled Worker Visa Route
Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information, please visit the Government's Skilled Worker visa page.

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information, please visit the Government's page, Apply for the Global Talent visa.