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| Last updated: | <date> |

**JOB DESCRIPTION**

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| Post title: | Research Fellow | | |
| School/Department: | Department of Social Statistics & Demography  ESRC Centre for Population Change,  School of Economic, Social and Political Sciences | | |
| Faculty: | Social Sciences | | |
| Career Pathway: | Education, Research and Enterprise (ERE) | Level: | 4 |
| \*ERE category: | Research pathway | | |
| Posts responsible to: | Prof Jakub Bijak/ Prof Ann Berrington | | |
| Posts responsible for: | None | | |
| Post base: | Office-based | | |

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| Job purpose |
| To undertake research on the ESRC Funded project “Understanding Recent Fertility Trends in the UK”. The main duties of the post holder will be to develop a method for modelling and forecasting fertility in the UK and to contribute to the writing of research articles. Actual experience of analysing United Kingdom Household Panel Survey (UKHLS) is highly desirable. The post holder will be required to work with the Centre for Population Change (CPC) Research Manager and the Centre Knowledge Exchange Manager to disseminate information about the project through electronic and social media as well as in written form.  They will be expected to contribute to the general CPC activities including seminars, workshops and conferences. The post-holder may contribute to other research and projects in the Centre where their skills are appropriate, as required by the Centre Director. |

| Key accountabilities/primary responsibilities | | % Time |
| --- | --- | --- |
|  | Develop statistical methods for modelling and forecasting fertility, including literature reviews and programming in R, stan or other equivalent statistical software packages | 45% |
|  | Collect, organise and document secondary data to be used in models and organise outputs in line with the University policies | 10% |
|  | Analyse data and model outputs | 10% |
|  | Contribute to the writing of project outputs including academic papers | 15% |
|  | Contribute to dissemination of findings to stakeholder e.g. through workshop activities | 5% |
|  | To work collaboratively with other members of the Centre including contributing to internal research meetings and seminars | 10% |
|  | Work collaboratively other members of the Centre including contributing to internal research meetings and seminars, and working with the CPC Knowledge Exchange team. | 5% |

| Internal and external relationships |
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| * External relationship with project team based at St. Andrews led by Prof. Hill Kulu. The post-holder may be expected to liaise with the Office for National Statistics or other statistical agencies, as appropriate. They will also need to engage with other academics and potential users of the research to disseminate findings. * Internal relationships   Prof. Ann Berrington (joint PI of the project)  Prof Jane Falkingham (Co-I on project and Director of CPC)  Prof Jakub Bijak (Co-I on project)  Dr Erengul Dodd (Co-I on project)  Teresa McGowan (CPC Research Manager)  Other faculty, post-doc researchers and PhD students working in related areas e.g. through weekly seminars and team meetings of the CPC Modelling strand |

| Special Requirements |
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| To undertake training courses as appropriate.  To attend national and international conferences for the purpose of disseminating research results.  *Applications for Research Fellow positions will be considered from candidates who are working towards or nearing completion of a relevant PhD qualification. The title of Research Fellow will be applied upon successful completion of the PhD. Prior to the qualification being awarded the title of* ***Senior Research Assistant*** *will be given.* |

**PERSON SPECIFICATION**

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| Criteria | Essential | Desirable | How to be assessed |
| Qualifications, knowledge and experience | PhD, or close to completion (or equivalent professional qualifications) with strong statistical or mathematical component in a relevant discipline (e.g., statistics, mathematics, demography, economics)  Detailed understanding and knowledge of Bayesian statistics. Experience of fitting models using Bayesian methods  Proficient in the use of R, stan, OpenBUGS, or other equivalent statistical software | Prior research interest/ experience in relation to fertility or family dynamics  Knowledge of literature and methods in area of fertility / family dynamics in developed world context  Previous experience in longitudinal analysis of Census Longitudinal Study data, or British Household Panel Study data or UKHLS data | Application, references, interview |
| Planning and organising | Able to organise own research activities to deadline and quality standards |  | Application, references, interview |
| Problem solving and initiative | Able to use knowledge and experience to be able to prepare data for analysis in appropriate manner and to be able to carry out and interpret appropriate statistical analyses  To be able to identify and respond to data challenges  Able to prioritise and take initiative on concurrent research tasks |  | Application, references, interview |
| Management and teamwork | Ability to work independently and with line manager and other team members, including those based in St Andrews, both face to face and via email/skype |  | Application, references, interview |
| Communicating and influencing | Able to contribute to writing up research results for publication  Ability to work collaboratively |  | Application, references, interview |
| Other skills and behaviours | Word processing, spreadsheet, internet, bibliography search skills and software (e.g. Endnote) |  | Application, references, interview |
| Special requirements |  | Able to attend national and international conferences to present research results | Interview |

**JOB HAZARD ANALYSIS**

**Is this an office-based post?**

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| Yes | If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below. |
| No | If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder. |

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

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| **ENVIRONMENTAL EXPOSURES** | **Occasionally**  (<30% of time) | **Frequently**  (30-60% of time) | **Constantly**  (> 60% of time) |
| Outside work |  |  |  |
| Extremes of temperature (eg: fridge/ furnace) |  |  |  |
| ## Potential for exposure to body fluids |  |  |  |
| ## Noise (greater than 80 dba - 8 hrs twa) |  |  |  |
| ## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below: |  |  |  |
| Frequent hand washing |  |  |  |
| Ionising radiation |  |  |  |
| **EQUIPMENT/TOOLS/MACHINES USED** | | | |
| ## Food handling |  |  |  |
| ## Driving university vehicles(eg: car/van/LGV/PCV) |  |  |  |
| ## Use of latex gloves (prohibited unless specific clinical necessity) |  |  |  |
| ## Vibrating tools (eg: strimmers, hammer drill, lawnmowers) |  |  |  |
| **PHYSICAL ABILITIES** | | | |
| Load manual handling |  |  |  |
| Repetitive crouching/kneeling/stooping |  |  |  |
| Repetitive pulling/pushing |  |  |  |
| Repetitive lifting |  |  |  |
| Standing for prolonged periods |  |  |  |
| Repetitive climbing (ie: steps, stools, ladders, stairs) |  |  |  |
| Fine motor grips (eg: pipetting) |  |  |  |
| Gross motor grips |  |  |  |
| Repetitive reaching below shoulder height |  |  |  |
| Repetitive reaching at shoulder height |  |  |  |
| Repetitive reaching above shoulder height |  |  |  |
| **PSYCHOSOCIAL ISSUES** | | | |
| Face to face contact with public |  |  |  |
| Lone working |  |  |  |
| ## Shift work/night work/on call duties |  |  |  |