

UKRI Policy Fellowships 2023: Fellowship Opportunity Description

Fellowship Title: NIC Improving Outcomes Economics and Applied Data Policy Fellowship

Host Organisation: [National Infrastructure Commission \(NIC\)](#)

Host Team: Economics, Analysis and Modelling team

Summary: Opportunity to apply advanced statistics skills and data science processes to improve long term economic infrastructure policy

Fellowship Theme: Data and Evaluation. *Please see the full call text 'What We Are Looking For' for a detailed summary of the research themes targeted in this call.*

Policy Topic: Sustainable economic growth across all regions of the UK; Climate resilience and the transition to net zero carbon emissions by 2050

Research Council: ESRC

Academic Discipline/s: spatial economics, economic history, data science, statistics

Research Career Stage: Suitable for both early or mid-career researchers

Fellowship Structure

Inception Phase:

Estimated Start Date: October 2023. *Exact date to be confirmed by the host depending on onboarding and security clearance requirements*

Duration: 3 months

FTE: 0.4 FTE

Main Placement Phase:

Duration: 12 months

FTE: 0.6-1 FTE

Knowledge Exchange Phase:

Duration: 3 months

FTE: 0.4 FTE

Work Arrangements

Location Requirements and Hybrid Working: The Commission operates a hybrid working policy with flexibility to work from home, with the expectation that staff are in one of our offices (London or Leeds) around 2 days per week. The Fellow should intend to be a regular visitor to one or other of these offices and seek to agree a hybrid weekly working pattern with their manager. *Eligible T&S costs are supported in the main UKRI grant. Please see full call text and guidance for more details.*

Security Clearance: [Basic Personnel Security Standard checks](#) (BPSS), usually takes around 6 weeks. Inception phase can begin before the security clearance process is completed but will be required for the main placement phase. See [National security vetting: clearance levels - GOV.UK \(www.gov.uk\)](#)

Fellowship Opportunity Description

The National Infrastructure Commission is looking for a Fellow to join its Economics, Analysis and Modelling team. The Fellow will play a central role in producing novel analysis which builds on the conclusions of the second National Infrastructure Assessment (published in Autumn 2023) and sets the agenda for further work to address long-term infrastructure challenges.

The second National Infrastructure Assessment will have three overarching themes: reaching net zero, reducing environmental impacts and adapting to climate change, and levelling up.

The Commission has a strong track record influencing government to adopt its recommendations and a major part of this success is due to a high quality and constantly improving evidence base. Over 80 per cent of recommendations to date have been adopted by government, leading to significant and lasting changes in the direction of government policy on economic infrastructure.

The Commission is regularly tasked by the Chancellor of the Exchequer to undertake studies on specific topics but is operationally independent of government and can set its own agenda alongside these studies. It works across the energy, transport, water, digital, waste management and flood prevention sectors on major long term infrastructure challenges. The Fellow can expect to bring their data-led approaches and methods to bear on a number of these sectors in pursuit of the Commission's [objectives](#).

The Fellow will significantly expand the types of evidence used by the Commission to inform long-term infrastructure strategy, developing new and/or leveraging existing large data sets and microdata in novel ways. They will help the Commission to uncover new opportunities for infrastructure to better support and impact on regional economic growth, productivity and competitiveness.

The Fellow will work flexibly with senior managers and analysts at the Commission to identify the most promising avenues for exploiting large data sets to inform infrastructure strategy, which could address problems such as:

- Deep uncertainty over the persistence of changes to commuting patterns post-covid and their effect on economic growth and productivity. This might explore the scope for using up-to-date versions of large transport datasets to demonstrate whether and how uncertainty is resolving itself into a new stable 'business as usual'.
- The paucity of consistent data between sectors and over time recording the stock of economic infrastructure and its associated (dis)amenities around the UK. Could new metrics and a dataset be constructed or synthesised which plugs this gap and yields new insights into how the stock of economic infrastructure links to local/regional economic success? How might this influence where new infrastructure, required for a net zero economy, should be located?
- The challenge of looking 30 years into the future when many of the available datasets extend much less than 30 years into the past. What trends, evolutions and revolutions in infrastructure have occurred in the past but do not show up in the more recent data, and contain important lessons for the future?

In addition to co-designing the work programme around these or other problems during the inception phase, the Fellow will work closely with analysts in the Commission to build in-house skills and experience of working with large datasets. The Commission is particularly interested in making better use of the National Travel Survey from the Department for Transport (DfT) and the Living Costs and Food Survey from the Office of National Statistics (ONS).

Outputs from the work might include a significant 'new' dataset (newly synthesised, as opposed to newly gathered primary data), proposals for new issues the Commission should consider tackling, publications and blogs which link the work to recommendations the Commission has previously made to government, and where appropriate academic papers.

The Fellow will benefit from working on key priorities in infrastructure strategy, learning from colleagues about how to translate evidence into strategy, and from Commissioners who are a mix of industry experts and world-leading academics in their fields. They will have access to experienced policymakers including Commissioners and the secretariat, opportunities to present to the Commission and to participate in discussions to exchange knowledge with stakeholders and senior officials in other government departments. They will see first-hand how the Commission influences government policy as it promotes the recommendations in the Second National Infrastructure Assessment.

Person Specification

Applications will be assessed against the following opportunity-specific requirements in addition to the generic eligibility and call criteria.

Essential Criteria:

- A good knowledge of how to access, manipulate and process data from a wide variety of sources, including survey-based microdata, administrative data and novel sources
- A proven track record of designing, developing and managing data intensive economic research
- Ability to synthesis evidence from a wide variety of sources and pick out the key policy-relevant insights
- Ability to work with colleagues across disciplines to deliver jointly owned pieces of work.
- Ability to communicate complex ideas simply and with impact, in both written and verbal form

Desirable Criteria:

- Ability to 'read the landscape' of debates in infrastructure policy and adjust work to maintain relevance and impact
- Interest in developing colleagues and improving organisational capability in handling, analysing and drawing insights from large datasets
- Experience and willingness to form and develop influencing relationships with key stakeholders, both internal and external.