

Call for Expressions of Interest:

IMA Workshop on Microsimulation practice in government

We are delighted to invite expressions of interest to join an International Microsimulation Association (IMA) workshop on microsimulation practices in government and related institutions to be held online in April 2025. If the workshop is successful, we propose to issue a call for papers on this topic to be reviewed for publication as a collection or special-issue in the International Journal of Microsimulation (IJM), the official peer-reviewed journal of the IMA.

What is the purpose?

Important and sophisticated microsimulation models exist inside government institutions, usually supported through in-house professional skills and technical know-how. We will call this the “practitioner field”. Compared with the academic field of microsimulation, the practitioner field is less concerned with academic novelty and more with the real-world challenges of producing forecasts, projections, and policy analyses that stand up to scrutiny.

Building and retaining the technical capability and IT resources needed for microsimulation within governments is a significant challenge, which has led to pockets of expertise and individuals who have devoted substantial career phases, sometimes whole careers, to developing the required capability in-house. Through this workshop, and then the collection of published articles, we aim to encourage further professionalization of the practitioner field by strengthening international links, sharing best practices and celebrating the achievements of those that work within the practitioner field of microsimulation.

Documenting state-of-the-art applications of microsimulation techniques used in governments will provide a reference text that supports further and more-rapid capability building. The process will also create greater transparency and opportunities for collaborations between the practitioner and academic fields, which can greatly accelerate the pace of innovation. This will help to safeguard the future of microsimulation in governments.

Our focus on creating capability

We will focus on applications of microsimulation that have increased technical capability in governments. For example:

1. Dynamic microsimulation, applied at scale and with considerable investment of time and resources, used in forecasting/projection of populations;
2. Advances in (static and dynamic) microsimulation modelling, such as: incorporating behavioural responses to policy changes through structural labour supply models; modelling of wealth; modelling of indirect taxes; spatially disaggregated models; model emulators;

3. Novel applications of microsimulation modelling in a government context that have created a lasting impact and new capability.

The focus will be on microsimulation applications developed and maintained within government and closely related institutions. Such institutions would include government agencies and may also include research institutions, knowledge transfer functions, social enterprises and learned bodies that provide permanent professional support.

We welcome submissions on a variety of themes

The topics covered could include, but are not limited to:

- Model selection and specification (e.g., continuous vs. discrete time);
- Data development and methods used therein (linkage, imputation, quality assurance);
- Methods for calculation of transition probabilities;
- Methods for alignment to aggregate targets;
- Methods for verification and validation of models;
- Forecasting using microsimulation models (e.g. estimation of uncertainties)
- Modelling of incentives and behavioural responses (e.g. labour supply);
- Frontiers of development (e.g. small group and spatial analysis, demography, emulators, agent-based modeling, mixed models, synthetic data use, machine learning-based);
- Advances in IT and programming.

In addition to established applications, we welcome submissions covering exploratory and smaller-scale pieces of work, which may be possible to combine into collaborative papers later.

Process

1. Please submit a short abstract (max. 300 words) by 20th Jan '25 to microsimulation.enquiries@dwp.gov.uk. This should include brief details of the microsimulation application and the features that fit it into the scope outlined here.
2. These abstracts will be reviewed by the panel below and successful applications will be notified by the end of February 2025.
3. We aim to run the workshop in April 2025 using the Microsoft Teams platform. We will consult on format and timing, hoping to accommodate all time-zones and working patterns;
4. If successful, we will issue a call for papers for a special issue in the IJM, for review in the second half of 2025, with a target publication date of summer 2026.

We look forward to your contributions!

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