

# Applied Economic Modelling Intern – Exploring Novel Uses of Input-Output Tables for Wales

## **Summary**

This is an exciting opportunity to do a work placement on a project for the Welsh Government within the Knowledge and Analytical Services (KAS) team, focusing on the recently published Input-Output Tables for Wales. The successful candidate will explore innovative applications of this rich dataset to generate insights that support economic policy and strategic decision-making.

The placement will involve applying advanced analytical techniques to investigate sectoral interdependencies, supply chain resilience, and the economic impact of public investment. Depending on interest and expertise, the intern may also explore areas such as carbon foot printing, trade dependency, or regional spillover effects. There will be scope to link Input-Output data with other sources, such as firm-level or environmental datasets, to enhance the granularity and relevance of findings.

This project offers a unique opportunity to apply academic research skills in a real-world policy environment, working alongside experienced analysts and contributing to evidence-based policymaking in Wales. The intern will gain hands-on experience with economic modelling, data visualisation, and stakeholder engagement, while developing a deeper understanding of Welsh economic structures and the role of government in shaping inclusive and sustainable growth.

# **The Organisation**

The Welsh Government is the devolved Government for Wales with responsibility for the economy, education, health and the Welsh NHS, business, public services and the environment of Wales.

Specifically, the internship will be based within Knowledge and Analytic services (KAS). KAS provides the collection, analysis and presentation of research and data for policymakers and the general public in keeping with professional standards. They offer independent evidence to understand, develop, implement, monitor and evaluate government policies. KAS also supports policy colleagues with policy development, implementation and delivery.

# The Internship

This project sits within the broader policy area of economic development and evidence-based policymaking, supporting Welsh Government efforts to build a more resilient, inclusive, and sustainable economy. The internship will provide an exciting opportunity to work at the heart of Welsh Government. The internship will require working closely with

policy officials and researchers, and will provide an opportunity to apply research skills in a policy environment, further develop generic skills (such as report writing or making presentations), and to enhance policy knowledge.

The successful candidate will benefit from development opportunities offered centrally by the Welsh Government, potentially including mentoring, shadowing, peer support and training.

Interns will benefit from the experience of working closely with the Welsh Government:

- Gaining a better understanding of the world outside of academia and increasing employability, using their knowledge and skills to contribute to the work of the Welsh Government.
- The intern's colleagues at the Welsh Government can offer an insight into the intern's PhD project that can contribute to the success of their thesis', as well as networking opportunities within the policy arena linked to their research area
- Transferable skills and knowledge
- Time management skills
- Report writing skills

## The Project

### **Exploring Novel Uses of Input-Output Tables for Wales**

Background

The Welsh Government has recently published updated Input-Output (IO) Tables for Wales, providing a detailed picture of inter-industry relationships and the flow of goods and services across the Welsh economy. These tables offer a powerful framework for understanding economic linkages, estimating multiplier effects, and modelling the impact of policy interventions. As part of the Knowledge and Analytical Services (KAS) team, this placement will explore novel applications of the IO tables to generate insights that support strategic decision-making in areas such as trade, sustainability, regional development, and economic resilience. The intern will have the opportunity to apply advanced analytical techniques and contribute to the development of evidence that informs Welsh Government policy.

#### Anticipated project outcomes:

- Analytical Report: A concise report summarising the findings from the intern's analysis, including methodological approach, key insights, and policy implications.
- Exploratory Modelling Outputs: Scenario-based modelling or sectoral analysis using IO data, potentially covering areas such as carbon footprinting, supply chain resilience, or trade dependency.
- Data Visualisations: Clear and engaging visual outputs to communicate complex economic relationships and findings to non-technical audiences.
- Presentation of Findings: A short presentation for internal stakeholders summarising the project's outcomes, highlighting innovative uses of IO data and recommendations for future analysis.

# Internship responsibilities and requirements

The internship will last for a maximum of 3 months. Full time students are expected to step back from their PhD to focus on the placement for its duration in line with ESRC guidelines (ESRC Postgraduate Funding Guide p. 27). Applications are encouraged from part-time students.

It is anticipated that the successful applicant will work in a hybrid way between home and a Welsh Government office during their internship. This may change depending on Welsh Government policy. Any changes to working arrangements will be discussed with successful applicants.

The internship will last for a period of 3 months full-time or the part-time equivalent. For students registered on a part-time studentship, this internship is available on a part-time basis over a longer time frame (no fewer than three days a working week), this would be negotiated between the WG and the successful applicant. If you would like to be considered on a part-time basis, please specify your preferred working hours on the application form.

#### Student specification

The student must have:

- Strong quantitative research skills, with experience in economic modelling, inputoutput analysis, or applied data science.
- Familiarity with relevant software tools such as R, Python, or Stata, and an ability to work with large and complex datasets.
- A good understanding of economic policy, regional development, or sustainability issues, and an interest in applying research to inform real-world decision-making.
- Excellent communication skills, with the ability to present findings clearly to both technical and non-technical audiences.
- Ability to work independently and collaboratively within a multidisciplinary analytical team.

## Start date of internship

February 2026 (exact date to be negotiated). There may be some flexibility dependent on individual circumstances.

# **Funding and costs**

Reasonable travel costs for students not normally based in Cardiff can be met. Requests should be consistent with Wales Graduate School for the Social Sciences (WGSSS) guidelines. Applications from students requiring additional funding for travel and accommodation will not be treated less favourably. For any queries on this please contact Katy Marrin Katy.Marrin001@gov.wales and Jo Coates Joanne.Coates@gov.wales.

## **Security**

The Welsh Government's vetting procedures (which apply to temporary as well as permanent staff) involve the completion of a Baseline Personnel Security Standard (BPSS) application form and a Security Questionnaire for the purpose of security vetting.

This process requires the applicant to produce in person three original forms of identification documents, one of which should be photographic (passport, new driving license), one document should showing their current address, plus one of: a utility bill, birth certificate, P45 or P60.

## **Nationality requirements**

'Eligibility for taking up an internship on this scheme is dependent on meeting the <u>Civil Service Nationality rules</u>. Please check that you are eligible before applying. Those who do not meet the eligibility criteria will not be able to take up a placement opportunity.

#### Queries

Any queries relating to the post or application process should be directed to Cerys.Ponting@gov.wales

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