

ECONOMIC STATISTICS

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Module 4	Subnational Statistics and Measuring Economic Inequality
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SUBNATIONAL STATISTICS

How much does the economic performance of one country vary at the subnational level?

How do we measure subnational statistics and does this differ from measuring national statistics?

What are the measurement challenges of analysing figures at a subnational level and how this can be crucial to interpreting subnational data?

How can we compare subnational estimates across countries?

why are subnational statistics so important?

Different clustering of people and economic activity is the first reason.

Economic statistics tend to focus on the performance of countries, while very little is said about where individuals and businesses locate within countries.

Conclusion: location is important because makes the difference in the performance of national economy.

Measuring the subnational statistics

- Provide information on the places where we live – and we work
- Describe the difference across parts of the country in jobs, incomes and productivity.
- Data are linked to the location, and so we can investigate the factors that influence economic outcomes across different areas and in general in all the country.

Conclusion:

- **Economic performance will vary.** Statistics representative of the national picture can mask significant variation between different local areas.
- **We understand national issues by looking at what is going on across the country.**

How do we collect this data?

There are limitations on what data can be produced because of the way they are collected.

Survey or administrative data?

the largest regular surveys will have a sample size of tens of thousands of individuals or businesses, but suffer two problems when it comes to looking at sub-national data

1- The sample might not be representative

2- The sample size might be too small to provide reliable estimates.

Conclusion: The drawbacks of survey data can be overcome by supplementing or replacing it with administrative data

Allocating a location to data

Whether using survey or administrative data, a key to the production of subnational statistics is that there must be some location data included in the data collection phase.

Advantages

Location data allows to have aggregation of all individuals or firms in a specific area in order to produce subnational statistics

Drawbacks

However, this can be complicated with the business statistics. For example, most firms do not have data for each individual local unit, therefore it is necessary to allocate all the aggregate data:

- on a single unit
- on other regional variables such as employment.

What data can be measured?

Not all economic data are always available at a local level

Residence or workplace?

Is the data showing the outcomes of the residents who live in a geographical area or the outcomes of workers who are employed in that area?

In any area with a high level of commuting can mean some very large differences between data measured in these two ways.

Some indicators can be measured in only one way – for example the Regional Gross Value Added and Productivity data or the Gross Disposable Household Income . In order, interpreting GVA per head can create a sort of confusion.

Understanding geography

How should subnational data be presented?

Administrative boundaries

The most common request for subnational data is to match administrative boundaries.

- There is an advantage for the local policymakers
- For research purposes this can cause problems: shape and scale of boundaries can create confusion on statistical results

Statistical geographies

Classifications

Conclusion: Try to be flexible

Improving regional statistics

the main messages relating to regional statistics is :

- More timely regional statistics
- Greater flexibility to provide statistics
- More use of administrative data sources

To meet this challenge it is important to consider

- Devolution
- Administrative Data
- Big Data
- Geospatial data

How can we measure inequality between regions?

there are a number of choices that have to be made either in the process of compiling the statistics or in the dissemination of the statistics.

In the case of regional inequality analysis this two issues become important.

- The difference between where people live and where they work caused by commuting.
- The size and types of the geographic areas being compare

Distortions from commuting

Measures of economic output tend to be measured on where people work, but commuting means people do not necessarily live where they work. → GVA per head is an example - the result can be distorted by commuting. Rather, measures of labour productivity – either GVA or GDP divided by the number of workers – are likely to give a better indicator of economic performance.

Distortions from area size

The more areas you divide the country into, the more likely you are to see high inequality. This is particularly important when making international comparisons.

As we are measuring smaller units in one country (or make international comparisons), this is likely to give you more extreme results and suggest higher regional (country) inequality. In other words, this higher apparent regional inequality might just be because of different-sized areas.

Conclusion: look at alternative geographies that provide more similarly-sized areas or provide a statistical geography on a consistent conceptual basis (for example the Metropolitan Areas geography).