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The Socioeconomic Index for Small Areas (SEISA)

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Roadmap

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Roadmap

- Who are HESA?
- Why did HESA create a new UK-wide area-based measure of deprivation?
- How did HESA create SEISA and validate the measure?
- What resources are available on SEISA and what feedback have you received on the measure to date?
- Questions?

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An introduction to HESA

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Background to HESA

- HESA was formed approximately thirty years ago.
- We produce official statistics on higher education.
- This means that we must adhere to the Code of Practice for Statistics.
- Some of our statistics will be assessed by the Office for Statistics Regulation.

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The Code of Practice for Statistics

- There are three key pillars to the Code of Practice;

- Trust
- Quality
- Value

- I will use this framework in explaining the development of SEISA.

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Why did HESA create SEISA?

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What do we mean by value?

- Valuable statistics can support our understanding of key societal issues.
- They can ultimately lead to better decision-making.
- *The views received from users, potential users and other stakeholders should be addressed, where practicable.*
- *Statistics producers should consider whether to produce new statistics to meet identified information gaps.*

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Statistics relating to deprivation

- Post-16 education statistics lack a UK-wide deprivation metric.
- Comparability is seen as an important aspect of good quality statistics.
- For example, having comparable statistics can enable better policy-making.

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The value of UK-wide statistics

- The lack of UK-wide comparable statistics remains a key issue today.

- *It is disappointing that - despite the ever-increasing amount of data available to policy-makers - there are many areas in which it is impossible to compare the experiences of those living in each of the four nations of the UK.*

- *The above quote is from a 2024 House of Commons Committee report.*

Indices of Deprivation: Limitations

- We know that the Indices of Deprivation have their limitations.

- They are not UK-wide.
- The final index doesn't effectively capture deprivation in rural areas.
- The size of the areas used may prevent pockets of deprivation being captured within less deprived localities.

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Why HESA developed SEISA

- As a producer of UK-wide post-16 education statistics, attempting to address this challenge sits within our remit.

- We aimed to create a measure that was UK-wide and also addressed other limitations of the Indices of Deprivation.

- We now move on to look at our methodology/validation work.

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SEISA methodology and validation

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What do we mean by quality?

- Quality statistics fit their intended uses.
- They are generated using appropriate data sources and methods.
- *Producers should be satisfied that the statistics are a meaningful estimate of the subject being measured.*

Defining deprivation and poverty

- **Deprivation:** A household cannot access the items or activities necessary to fully participate in well-established norms within society.

- **Poverty:** A household lacks the (financial) resource to acquire these commonly accepted customs of life.

- Family Resources Survey remains our key source of information on deprivation.

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The benefits of the Census

- As a data source, the Census offers several advantages for generating a deprivation measure, such as;

1. Questions are harmonised (as far as possible) across the four UK nations.

2. Data is published on smaller-sized areas than those used to form the Indices of Deprivation.

3. Rich data is collected on factors likely to be associated with deprivation.

The use of output areas

- We use output areas (small areas/data zones in Northern Ireland) to create our UK-wide area-based measure.
- These areas generally contain less than 500 inhabitants.
- They are therefore much smaller than the areas used to form the Indices of Deprivation.
- **Rationale:** To help mitigate the risk of not picking up pockets of deprivation within less deprived localities.

Previous deprivation measures based on the Census

- There have previously been deprivation measures created using the Census.
- This includes by Townsend, as well as Carstairs & Morris.
- We aimed to create a new measure using the Census based on a different methodology.

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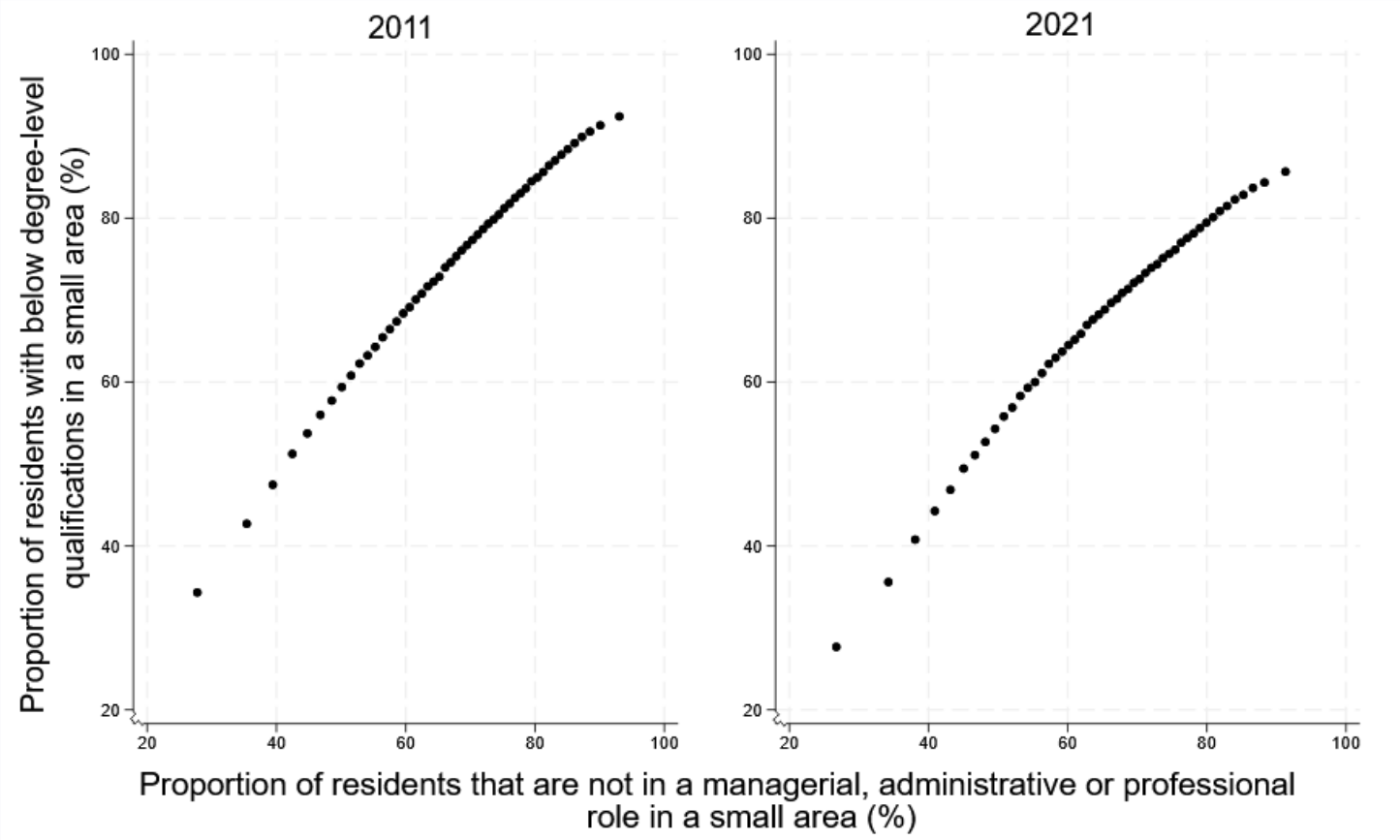
SEISA methodology

- In each output area of the UK, we calculate;
- The proportion of residents with below degree-level qualifications.
- The proportion of residents who are not employed in managerial, administrative or professional occupations.
- Areas are ranked (and split into deciles) based on an average of these two values.

Figure A: The correlation between qualifications and socioeconomic position based on occupation in small areas of the UK



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Validation of SEISA

- We know that households are more likely to experience deprivation if they;

- Live in social housing
- Are part of single-parent families
- Report poor/very poor health
- Have a low income

Figure B: The association between SEISA and housing tenure in Census 2011 and 2021

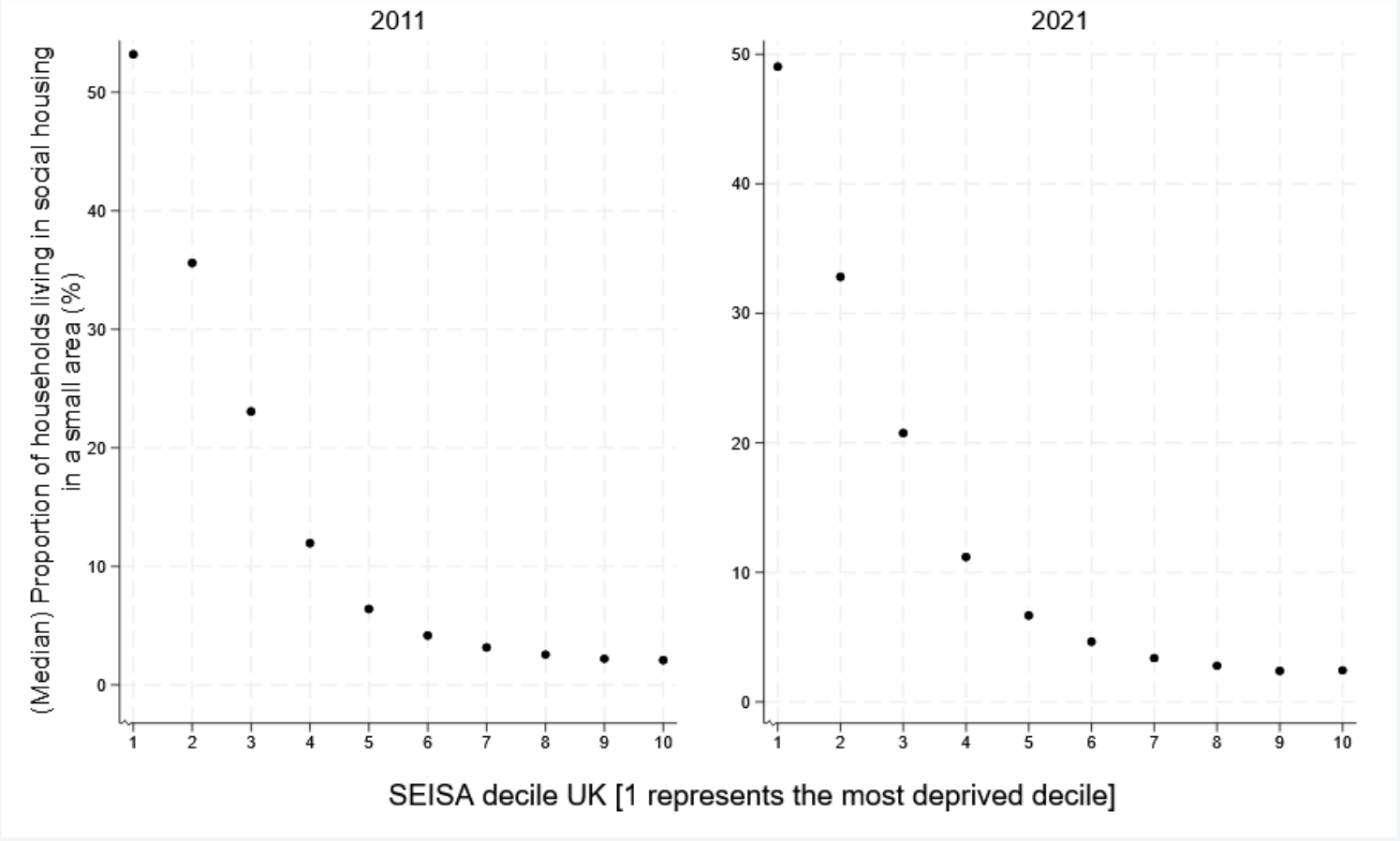


Figure C: The association between SEISA and family composition in Census 2011 and 2021

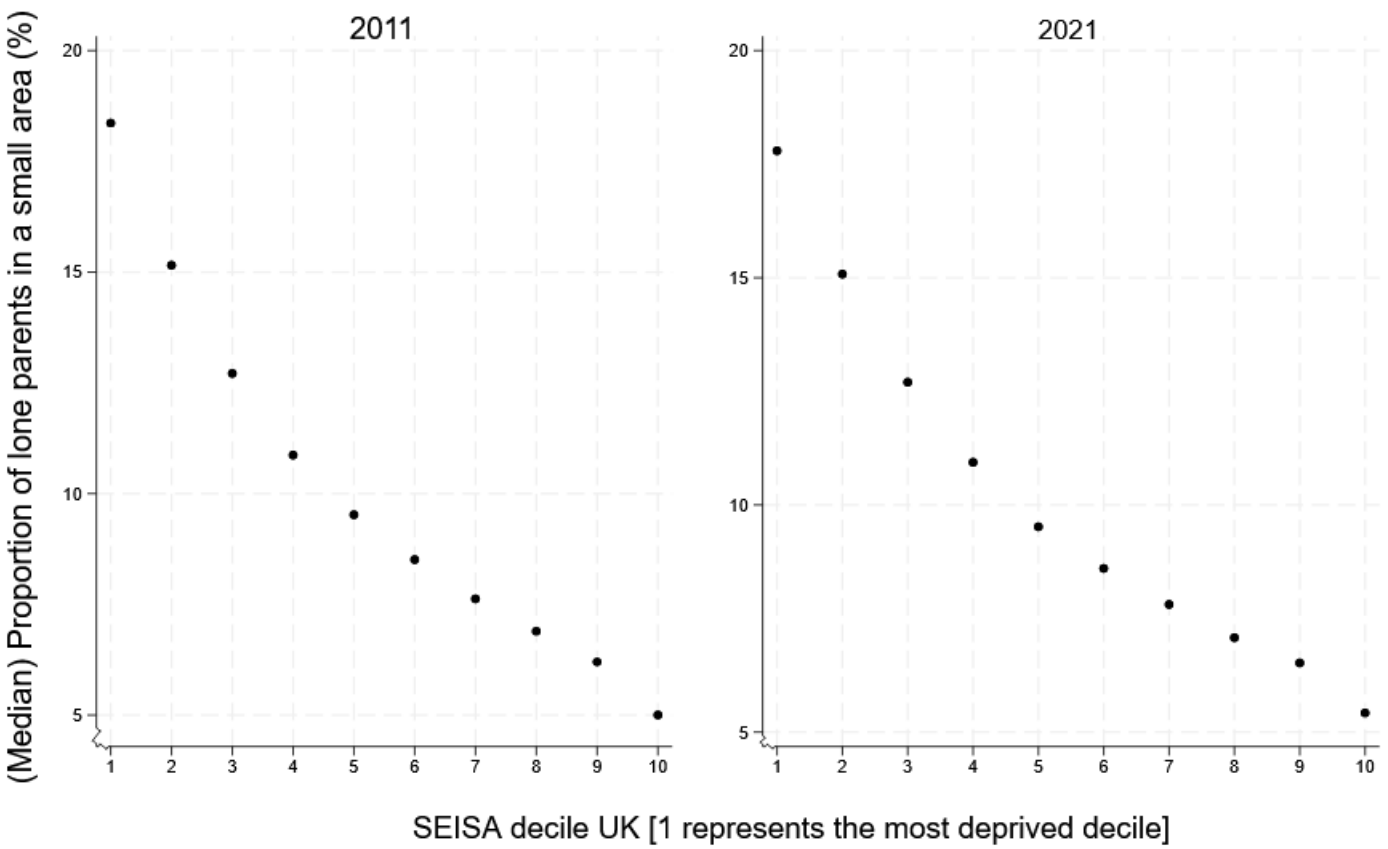


Figure D: The association between SEISA and self-reported health in Census 2011 and 2021

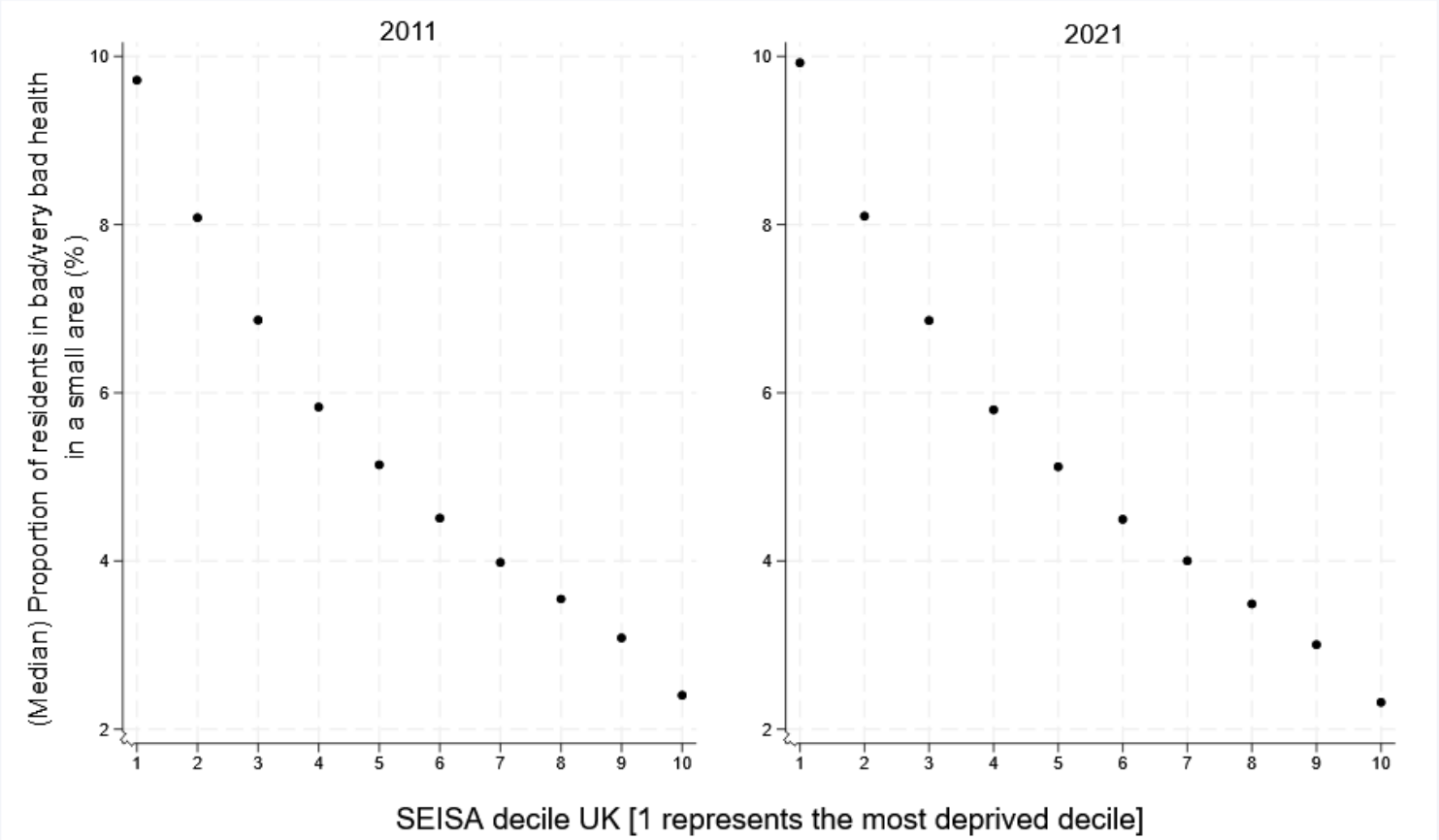


Figure E: The correlation between SEISA and equivalised income estimates (after housing costs) in England for the financial years 2011/12 and 2020

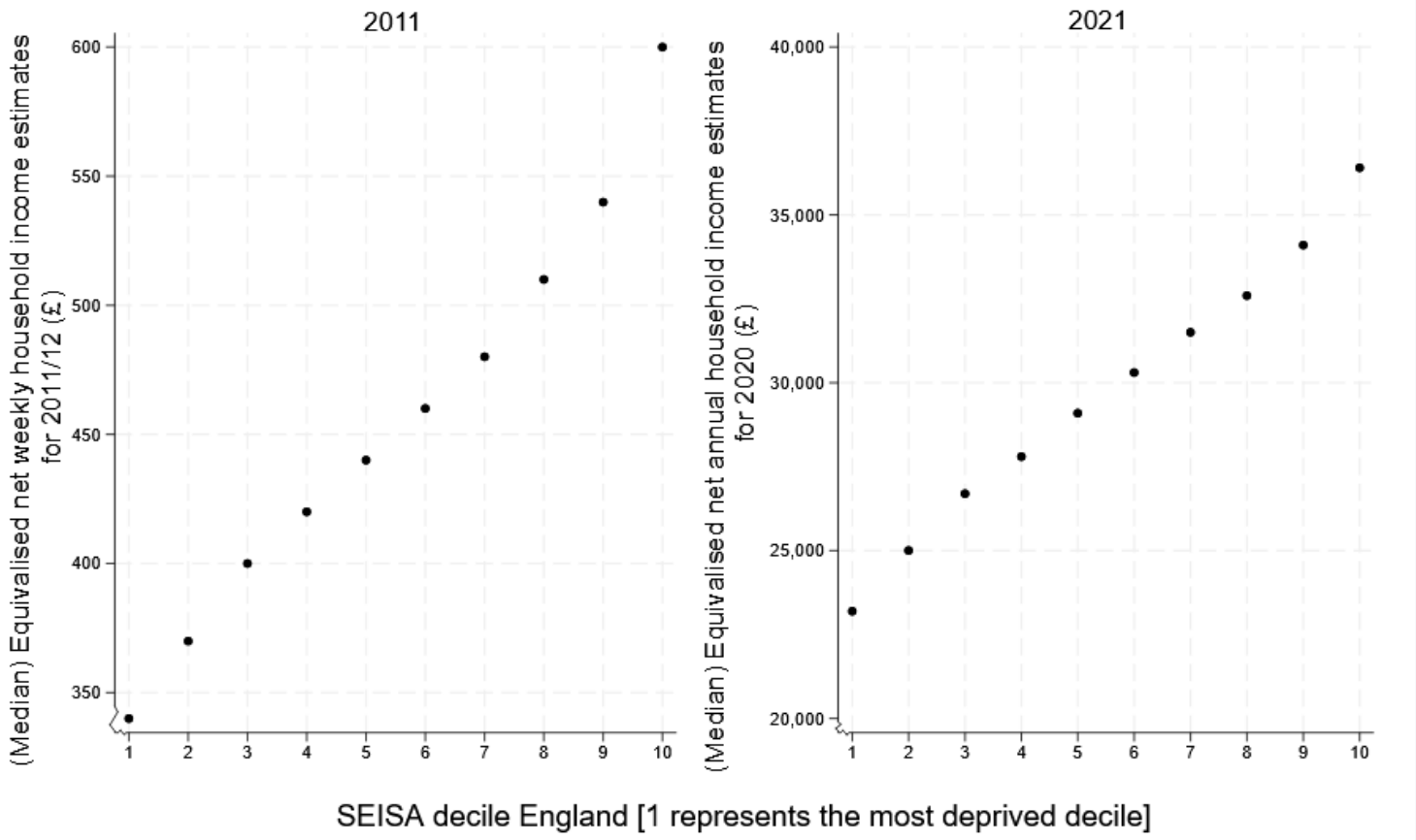


Table 4: Urban/Rural classification of areas that fall into the bottom quintile of IMD and SEISA (when applied to England only)

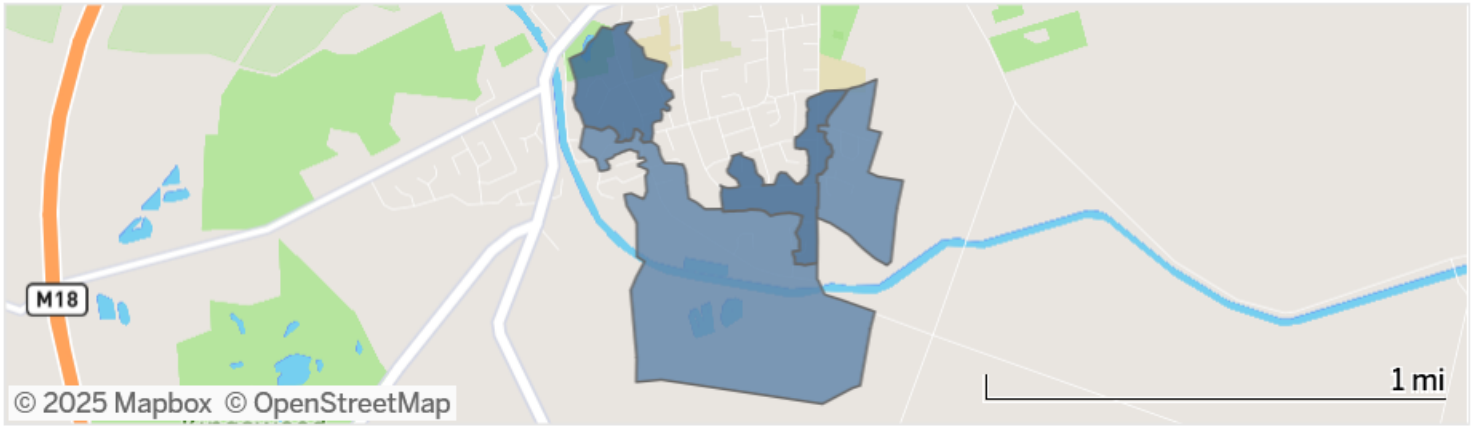
Urban/rural classification	IMD (%)	SEISA (%)
Rural hamlets and isolated dwellings	0.3	0.3
Rural hamlets and isolated dwellings in a sparse setting	0.0	0.0
Rural town and fringe	2.4	5.6
Rural town and fringe in a sparse setting	0.1	0.4
Rural village	0.3	1.0
Rural village in a sparse setting	0.0	0.1
Urban city and town in a sparse setting	0.2	0.4
Urban city and town	40.5	48.7
Urban major conurbation	49.7	36.4
Urban minor conurbation	6.4	7.1
Total number of output areas	34,229	34,274

An area of Doncaster that lies within decile 4 of the English Index of Multiple Deprivation (2019)

SEISA (20... 1 10

Search Doncaster 003F Region Na... (All)

SEISA (201... 1 10 SEISA (20... 1 10



Local Authority Name (2011)	Middle Super Output Area Name	Lower Super Output Area Name
Doncaster	Thorne	Doncaster 003F

A rural area of Shropshire that is placed in decile 5 of the English Index of Multiple Deprivation (2019)

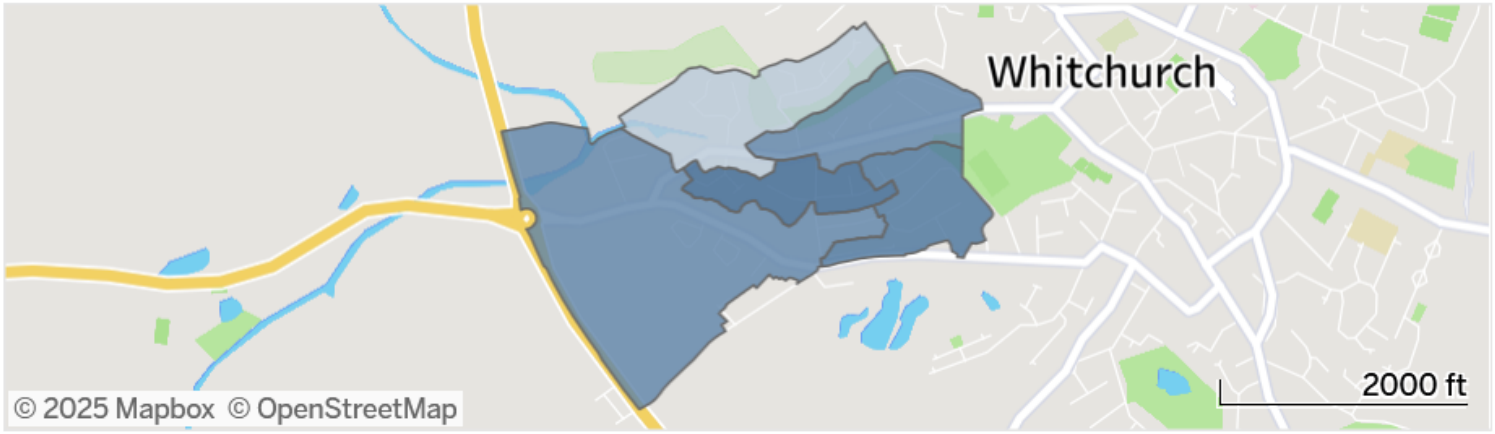
SEISA (20... 1 10

Search Shropshire 001F

Region Na... West Midlands

SEISA (201... 1 10

SEISA (20... 1 10



Local Authority Name (2011)	Middle Super Output Area Name	Lower Super Output Area Name
Shropshire	Whitchurch	Shropshire 001F

Table 5: Urban/Rural classification of areas that fall into the bottom quintile of SIMD and SEISA (when applied to Scotland only)

Urban/rural classification	SIMD (%)	SEISA (%)
Large urban areas	52.5	39.8
Other urban areas	37.6	41.9
Accessible small towns	5.2	8.5
Remote small towns	1.6	2.7
Accessible rural	2.2	5.1
Remote rural	1.0	2.0
Total number of output areas	10,025	9,270

An area of the Shetland Islands that is within decile 7 of the Scottish Index of Multiple Deprivation (2020)

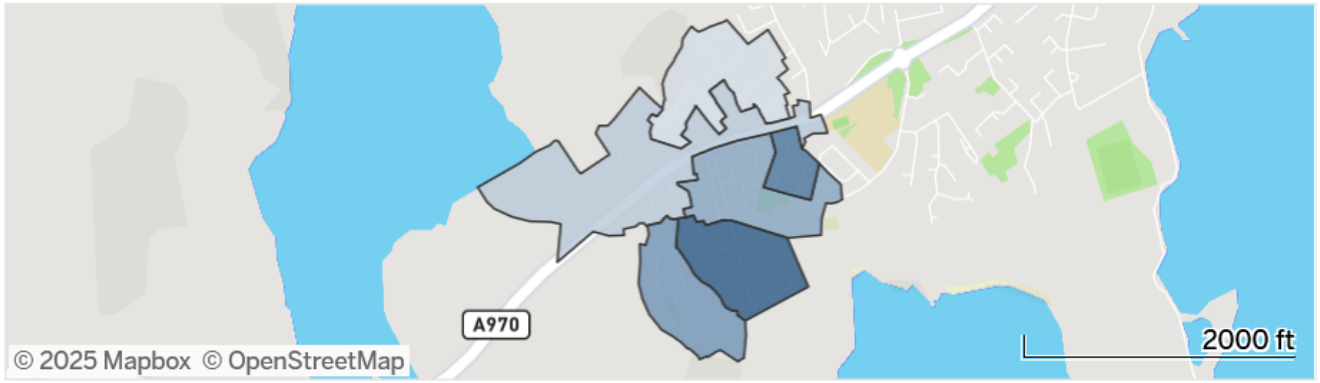
SEISA (20... 1 10

Search Lerwick South - 02

Council Ar... (All)

SEISA (201... 1 10

SEISA (201... 1 10



Council Area Name (2..	Intermediate Zone Name	Data Zone Name	Output Area Code
Shetland Islands	Lerwick South	Lerwick South - 02	S00128944
			S00129032
			S00128942
			S00129034
			S00128943
			S00129085

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SEISA resources and feedback

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What do we mean by trustworthiness?

- Having confidence in the people and organisations that produce the data.

- *Statistics, data and metadata, including those available through data services, should be released at the greatest level of detail that is practicable to meet user needs. They should be consistent with common data standards and protocols wherever possible.*

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SEISA webpages

- **SEISA summary page**

- Jargon-free explanation of why we created SEISA, the methodology and how it can/cannot be used.

- **SEISA resources page**

- Provides the option to download the SEISA 2021 data.
- Archive section contains SEISA 2011 data and interactive maps, as well as a technical report.

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User feedback: Part 1

- *I've already heard from one partner that they have accessed the data to see how it compares to current measures they use so can definitely see it will be utilised in targeting for interventions moving forward.*

- *Having worked with a lot of local authorities across England and Wales who are trying to more accurately target their work, I know SEISA will be relevant to many of them.*

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User feedback: Part 2

- *There was consensus that the release of open data for research purposes is a very positive move for the measure.*

- *I appreciate that this level of detail is covered in the technical report as it provides important background information relevant to the use of the SEISA measure.*

- *There was consensus that the release of open data for research purposes is a very positive move for the measure.*

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Questions

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Useful links and contact information

- https://www.hesa.ac.uk/data-and-analysis/research/seisa
- https://www.hesa.ac.uk/blog/21-01-2025/seisa-now-official-statistics
- https://www.hesa.ac.uk/data-and-analysis/research
- Any questions and/or feedback on SEISA can be sent to official.statistics@hesa.ac.uk.