Project Advisory Group
Thursday 22nd June 2023
Exploring spatial scale using the EQI

Trajectories of deprivation in the UK

QUEEN'S UNIVERSITY BELFAST

deprivation.org
Research to support the eradication of poverty and deprivation

UNIVERSITY OF LEEDS

UKRI Economic and Social Research Council

Nuffield Foundation

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Exploring spatial scale using the Employment & Qualifications Index (EQI)

Outline

1. Motivation and objectives
2. EQI geographies, data and methods
3. Emerging findings
4. Caveats and considerations
5. Next steps

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Exploring spatial scale using the Employment & Qualifications Index (EQI)

Motivation and objectives

- Strategies, policies and interventions may be targeted at the ‘most deprived’ areas (e.g. using the Index of Multiple Deprivation (IMD)).
- Measurement approach -> area selection.
- Geographical unit of analysis -> area selection.
- Lower Super Output Areas (LSOAs) often used.
- Implications of shift to Output Areas (OAs) instead?
- Targeting effectiveness and efficiency?

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Exploring spatial scale using the Employment & Qualifications Index (EQI)

EQI geographies, data and methods

- 2021 Census output geographies:
  - OAs: 188,880 across E&W; median pop 306; typically 100-600 pop.
  - LSOAs: 35,672 across E&W; median pop 1,606; typically 1k-3k pop.

- ➢ LSOAs: wider range of indicators (inc Admin); more statistically robust.
- ➢ OAs: limited range of indicators; disclosure; but *more spatially nuanced*.

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Exploring spatial scale using the Employment & Qualifications Index (EQI)

EQI geographies, data and methods

- Based on 2021 Census data.
- Composite index consisting of two domains:
  - Employment deprivation -> proportion unemployed.
  - Qualifications deprivation -> proportion with low qualifications.
- Domains produced and combined following general IMD approach.
- Two methodologically identical variants produced: one at Lower Super Output Area (LSOA) level, and one at Output Area (OA) level.
- Each variant (LSOA & OA) ranked across E&W -> deciles.

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Exploring spatial scale using the Employment & Qualifications Index (EQI)

OA deciles	LSOA deciles										
	1 Most deprived	2	3	4	5	6	7	8	9	10 Least deprived	Total
1 Most deprived	11,616	4,009	1,699	830	374	173	108	50	23	6	18,888
2	4,388	6,207	3,955	2,109	1,115	561	318	131	78	26	18,888
3	1,473	4,295	4,779	3,557	2,196	1,289	710	348	186	55	18,888
4	518	2,185	3,637	4,039	3,289	2,326	1,514	829	428	123	18,888
5	193	968	2,273	3,447	3,769	3,208	2,312	1,543	877	298	18,888
6	110	466	1,246	2,286	3,141	3,603	3,196	2,536	1,623	681	18,888
7	38	239	691	1,382	2,474	3,237	3,599	3,308	2,610	1,310	18,888
8	33	115	344	772	1,471	2,464	3,405	4,058	3,809	2,417	18,888
9	17	71	187	430	794	1,484	2,568	3,834	4,852	4,651	18,888
10 Least deprived	9	46	99	227	389	667	1,294	2,354	4,512	9,291	18,888
Total	18,395	18,601	18,910	19,079	19,012	19,012	19,024	18,991	18,998	18,858	188,880

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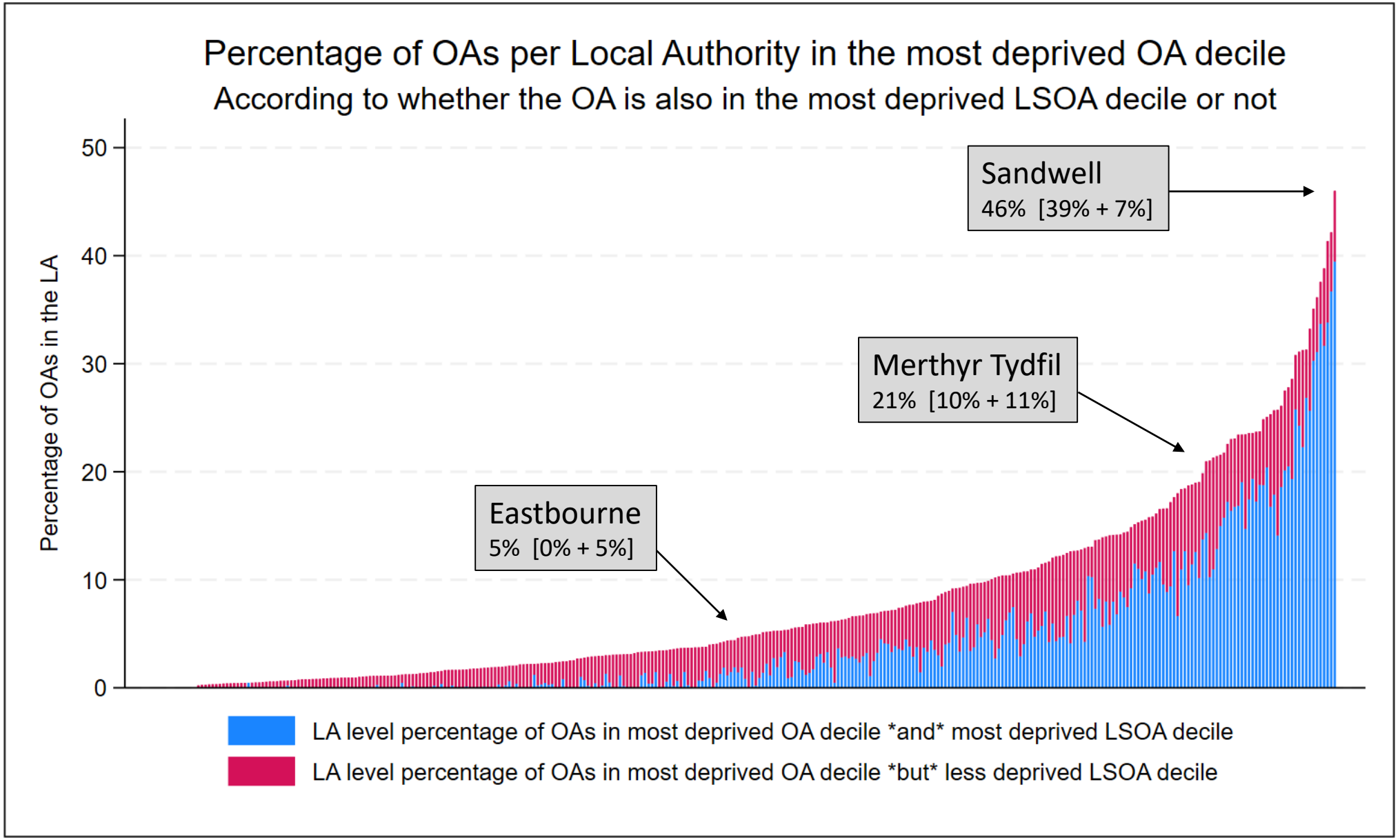

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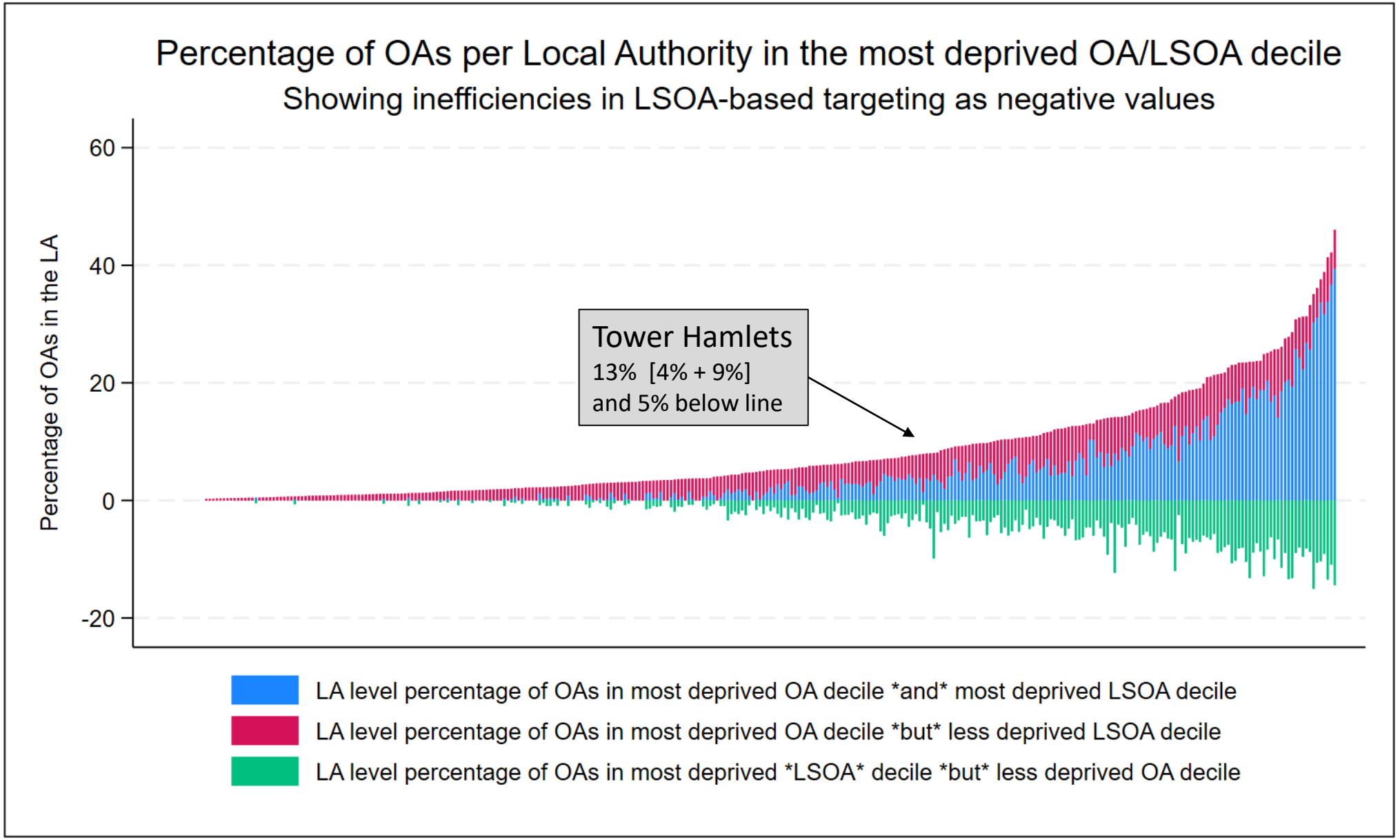

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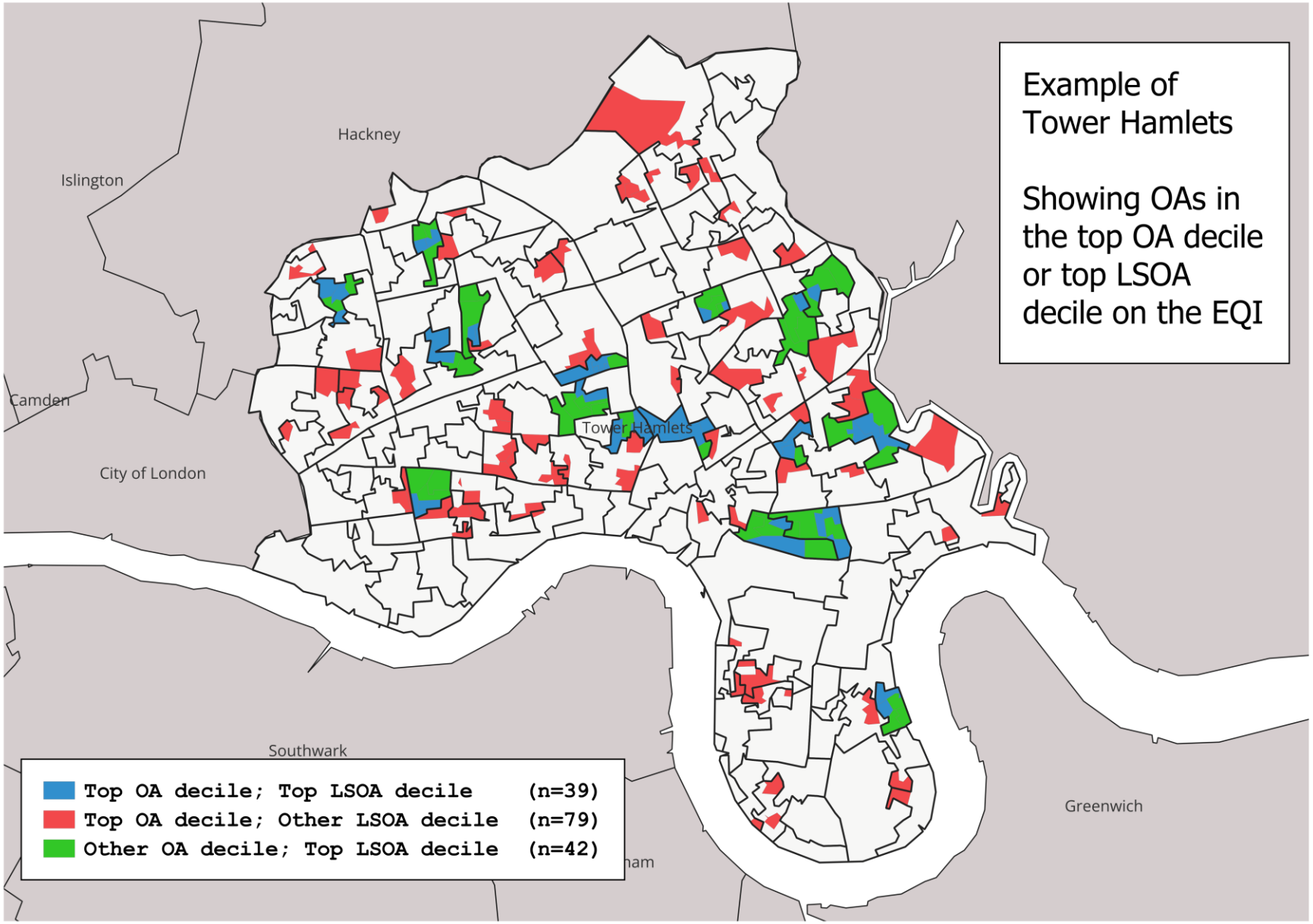

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Caveats and considerations

- Pros and cons to both LSOAs and OAs.
- Important to understand the implications for targeting effectiveness and efficiency of using any given spatial scale.

Next steps

- Expand analysis of 2021 EQI.
- Build EQI for 2011 (and possibly earlier).
- Assess change over time at different spatial scales.

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Thank you

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