

Which areas in England have the highest levels of crime?

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1. Overview:

Justice Episteme Ltd has developed an application, Environs, which can consolidate and map publicly available data to a variety of boundaries, to create a holistic picture of individual area statistics. Environs has been used to identify for each region in England, the Lower Super Output Areas ('LSOAs') that have the highest levels of crime.

Disclaimer - This analysis is a non-exhaustive; and does not seek to draw any conclusions about the LSOAs identified. Rather, the intention of this analysis is to demonstrate the functionality of the Environs application and that users have a powerful tool at their disposal for consolidating and interrogating data, which can direct their research, allow them to form hypotheses and support subsequent evidenced backed conclusions from the data.

2. Method:

The Office of National Statistics ("ONS") has classified the geography of England into a variety of boundaries including small geographical areas called 'Lower Super Output Areas' ("LSOAs") (last material update in 2011) that contain similar population sizes or numbers of households, [Reference (1)]. These LSOAs are used by the ONS and other national, regional and local government bodies/ agencies to collect and report on a wide variety of data including population demographics, socio-economic, health, housing, tax etc.

The Environs application has identified the LSOAs in England with the highest crime rates i.e. average number of offences per month that includes Anti-social Behaviour Order ("ASBO"), Drugs, Burglary, Robbery, Violence & Sexual Offences, Criminal Damage. This was achieved by consolidated and mapped the following information:

- The Office of National Statistics geographical boundary data which the Environs application has used to map the data outlined below, to a map of the UK. [References: (1), (2)]
- The Office of National Statistics Mid-2020 LSOA Population Estimates (published 16 September 2021) which includes population counts by LSOA, age and by male/female. [References: (3), (4), (5)].

- Data.police.uk crime and policing data published online and available at LSOA geographical granularity. In this analysis, the Environs application has used offence numbers between January 2019 and June 2021 to calculate the average number of offences per month. [References: (6)]

Using the above data, the Environs application has identified the LSOAs in England with the highest crime rate.

3. Results:

3.1. LSOAs with highest crime rate in England; by region

Figure 3.1 - LSOAs with highest crime rate in England; by region.

Region	LSOA name ¹⁻³	Population ¹⁻⁵	Crime rate - Incidents per month ⁶	Crime rate - Incidents per month per 1000 people
North West	Liverpool 060C	3412	197	58
East Midlands	Derby 013F	3402	195	57
South West	Bristol 032B	5215	195	37
London	Newham 013G	17274	188	11
Yorkshire and the Humber	Leeds 111B	4313	153	35
East of England	Luton 018F	4200	144	34
South East	Brighton and Hove 027A	2404	143	60
West Midlands	Stoke-on-Trent 015D	2004	140	70
North East	Newcastle upon Tyne 024C	4170	136	33

LSOA Liverpool 060C has the highest crime rate at 197 incidents per month. Stoke-on-Trent 015D has the highest crime rate for its population size with 70 incidents per 1000 people per month.

4. Conclusion:

In consolidating a variety of publicly available data, the Environ application has identified the LSOAs with the highest crime rates which could be further explored to better understand their corresponding local area key characteristics. These questions include but are not limited to:

- Further investigation and identification of other LSOAs within England which may not have the highest crime rates per month (count of incidents) but may have higher crime rates for their population size than those listed in this case study.
- Further investigation of each LSOA to better understand the population demographics, health, access to services, education levels, deprivation indices, tax credit metrics etc.
- A comparison of the LSOAs to each other to see if there are commonalities in their characteristics.
- A comparison of the LSOAs to others within their own local authorities to identify possible trends or causes for the high crime rates.

5. References

1. **Office of National Statistics.** A Beginner's guide to UK geography, p23, "Super Output Area". [Online] 2021. <https://geoportal.statistics.gov.uk/documents/a-beginners-guide-to-uk-geography-2021-v1-0/explore>.
2. —. *Lower Super Output Areas – redesignated in 2011 – Office of National Statistics.* [Online] <https://www.ons.gov.uk/methodology/geography/ukgeographies/censusgeography#super-output-area-soa>.
3. —. Office of National Statistics - Lower layer Super Output Area population estimates (National Statistics). *ONS.gov.uk.* [Online] 16 09 2021. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimatesnationalstatistics>.
4. —. Small Area Population Estimates: Summary of methodology review and research update. *Office of National Statistics.* [Online] 25 05 2016. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/methodologies/smallareapopulationestimatessummaryofmethodologyreviewandresearchupdate>.
5. —. Lower layer Super Output Area population estimates (National Statistics) - Mid-2020: SAPE23DT13 edition of this dataset. *ONS.gov.uk.* [Online]

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6. **data.police.uk**. Welcome to data.police.uk. *data.police.uk*. [Online] 16 11 2021. <https://data.police.uk/data/>.