

Inequalities in Road Danger Dashboard FAQs

For FAQs about the casualty data in this dashboard, please see the '[Road danger reduction dashboard: frequently asked questions](#)'.

What are LSOAs?

Population, road length, and deprivation are all measured in the dashboard at the level of Lower Super Output Area (LSOA). LSOAs are standard geographies designed to aid reporting small area statistics in England and Wales. An LSOA usually comprises a population between 1,000 and 3,000—or approximately 650 households.¹

LSOA boundaries are subject to change every ten years, when they are recalculated to reflect changes in population and household distribution.

Two sets of LSOA boundaries are used in this dashboard: the 2011 LSOA boundaries, and the 2021 LSOA boundaries. Collision locations and casualty home postcodes are matched with 2011 LSOAs in the case of collisions occurring between 2017-2021, and with 2021 LSOAs in the case of collisions occurring in 2022. This necessitates the use of different maps in the dashboard (one for 2017-2021 collisions with 2011 LSOAs, and one for 2022 collisions with 2021 LSOAs).

Lists of LSOAs can be downloaded from the [Open Geography Portal](#) from the Office for National Statistics (ONS).

What are IMD deciles?

The dashboard measures deprivation using IMD deciles. IMD refers to Index of Multiple Deprivation, a standard measure of deprivation that combines seven weighted indicators of deprivation to rank every LSOA in England from most to least deprived.

Based on their rank, LSOAs are then assigned an IMD decile—i.e., is the LSOA in the top 10 percent most deprived, or the next 10 percent, and so on. The top 10 percent most deprived LSOAs are in IMD decile 1, and the next most deprived 10 per cent in IMD decile 2, and so on up to IMD decile 10, the least deprived. Note that LSOAs are ranked at an England-wide level, not just within London. This means that the population of each IMD decile in London is not 10 percent of London's population. Not all boroughs contain LSOAs from all IMD deciles. Each individual borough's deprivation profile is visible on the dashboard.

For a list of LSOAs and their IMD deciles, see GOV.UK's '[English indices of deprivation 2019](#)' and for more information about the calculation of the deciles see the '[English Indices of Deprivation 2019 FAQs](#)'.

IMD deciles were most recently calculated in 2019 for the 2011 LSOAs (see above). For the small number of 2021 LSOAs that do not therefore have an IMD decile, the ONS' [exact fit lookup file](#) has been used to attribute their IMD decile based on the IMD decile/s of the 2011 LSOA/s that match their geographic area.

¹ [Census 2021 geographies - Office for National Statistics \(ons.gov.uk\)](#)

The dashboard frequently aggregates deprivations levels into three groups: IMD deciles 1, 2, and 3, IMD deciles 4, 5, 6, and 7, and IMD deciles 8, 9, and 10. This is to show the difference between the most and least deprived populations in a way that is easier to interpret than comparing ten deprivation categories. Note that this is not the same as splitting the population into thirds. Firstly, the middle deprivation category contains four IMD deciles and the other two categories contain three IMD deciles. Secondly, as noted above, each IMD decile does not contain an equal proportion of London's population.

How has the pandemic impacted the data shown in the dashboard?

The pandemic caused large changes in travel patterns and the impacts of this are still settling. Differences between the years 2020-2021—which were the most impacted by the pandemic—and surrounding years are therefore apparent across the dashboard.

The ['Inequalities in road danger' report](#), published earlier this year by TfL, provides narrative throughout about the differences between 2020-2021 and the preceding years.

Can I export / download data from the Dashboard?

Not currently but we will update if this functionality becomes available. However, you can find downloadable data in csv format for London on our website:

<https://tfl.gov.uk/corporate/publications-and-reports/road-safety>

It is also possible to use a snipping tool to create a screen shot of the tables shown in the Dashboards for reports.

Casualty Home Postcode

(pages 'Deprivation - Casualty Home Postcode' and 'Deprivation - Casualty Home Postcode Map')

What do these pages show?

Pages 'Deprivation – Casualty Home Postcode' and 'Deprivation - Casualty Home Postcode Map' look at where in London a person who has been killed or injured in a collision lives, rather than where in London the collision itself occurred.

The dataset used for these pages therefore comprises collisions occurring in London where the casualty also resides in London. Casualties with a non-London or unknown home postcode have been excluded.

These pages show: the deprivation profile of a selected area (total population in each IMD decile), the number of casualties who live in that area, and the casualty rate for people living in that area.

How has the casualty rate been calculated?

To calculate the casualty rate, the number of casualties is standardised by the population of the selected area to give a *casualty rate* per 1,000 people.

The calculation is therefore:

$$\text{Casualty Rate} = \frac{\text{Number of Casualties}}{\text{Number of Relevant Population}} \times 1,000$$

Casualty rates are also normalised by the number of years selected, so that rates may be compared across different time periods.

Please note that calculating the casualty rate per population does not account for differing journey frequency or exposure to traffic.

Where does the data used to calculate the casualty rate come from?

For detailed information on the casualty data used in this report, please see the FAQs linked at the top of this document.

The population data used as the denominator to calculate casualty rate is as follows:

- For consistency with the TfL's original ['Inequalities in road danger' report](#), for any single year or combination of years between 2017 and 2021 the dashboard uses the [mid-2014 population estimates](#) as denominator.
- For 2022—when selected on its own—the dashboard uses [2021 census data](#).
- When a selection is made that combines 2022 with any one or more of the years between 2017 and 2021, the dashboard uses an average of the mid-2014 population estimates and the 2021 census population as the denominator in casualty rates.

Collision Location

(pages 'Deprivation - Collision Location' and 'Deprivation - Collision Location Map')

What do these pages show?

Pages 'Deprivation - Collision Location' and 'Deprivation - Collision Location Map' look at where in London a collision has occurred, regardless of where the person injured or killed in that collision lives.

The dataset used for these pages therefore comprises all collisions occurring in London.

These pages show: the deprivation profile of a selected area (total road length in each IMD decile), the number of casualties injured while travelling in that area, and the casualty location rate for that area.

How has the casualty location rate been calculated?

To calculate the casualty location rate, the number of casualties is standardised by the length of road in the selected area to give a *casualty location rate* per kilometre of road.

The calculation is therefore:

$$\text{Casualty location rate} = \frac{\text{Number of Casualties}}{\text{Road length (metres)}} \times 1,000$$

Casualty location rates are also normalised by the number of years selected, so that rates may be compared across different time periods.

Calculating the casualty location rate per road km does not account for differing volumes of traffic on the roads.

/Where does the data used to calculate the casualty location rate come from?

For detailed information on the casualty data used in this report, please see the FAQs linked at the top of this document.

The road length data used as the denominator to calculate casualty location rate is as follows:

- For each LSOA, the length of road links within its geography is calculated, from [Ordnance Survey's OS MasterMap Highways Network](#). A road link represents “the general alignment of the road carriageway”.
- This includes fractions of a road which are within the LSOA's boundary if that road also crosses into other LSOAs.
- This is calculated for 2011 LSOA boundaries and 2021 LSOA boundaries, but the underlying road network data is the same for both calculations. Calculations were made in September 2023 using the latest version of the dataset.
- For any single year or combination of years between 2017 and 2021, the dashboard uses road length calculated with 2011 LSOA boundaries as the denominator.
- For 2022—when selected on its own—the dashboard uses road length calculated with 2021 LSOA boundaries.
- When a selection is made that combines 2022 with any one or more of the years between 2017 and 2021, the dashboard uses an average of the road length calculated with 2011 LSOA boundaries and the road length calculated with 2021 LSOA boundaries.