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This documents offers a summary of population density changes in England throughout the process of the COVID-19 lockdown.

In the figures below, we show the percentage difference in tile density compared to the same time period pre-lockdown (week commencing March 10th). This was taken using Facebooks Data for Good, produced in order to aid crisis management. We took measurements of the number of Facebook users within a given area during a specified time period. The population density is calculated within an area of 600m x 600m. Additionally the data is split into three time periods, these are between: 00:00 - 08:00, 08:00 - 16:00, and 16:00 - 00:00. In order to maintain the privacy of Facebook users, tiles with a population lower than 10 have been removed.

We have included data from four separate weeks in order to show a progressive change in the density patterns as lockdown measures are altered.

The weeks included were:

Week commencing March 23rd: The first week of full UK lockdown
Week commencing April 13th: Midway through the lockdown period
Week commencing May 18th: The week lockdown measures were first officially reduced (step 1)
Week commencing June 1st: The week lockdown measures were further eased (step 2)

We also included the week including and following July 4th: At this point measures were introduced from Saturdays and so this week reflects the Saturday new measures were introduced along with the following weekdays.

For each week we have included data on the Wednesday (weekday) and Saturday (weekend). This is as density patterns are likely to vary between weekend and weekday. Additionally no public holidays fall on these days, which could impact density patterns.

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