

A Summary of England Facebook Population Density Changes Through COVID-19 Lockdown

Contents

This document 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 Facebook's 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.

Weekday Density Changes: Figures 1 - 9

Weekend Density Changes: Figures 10 - 18

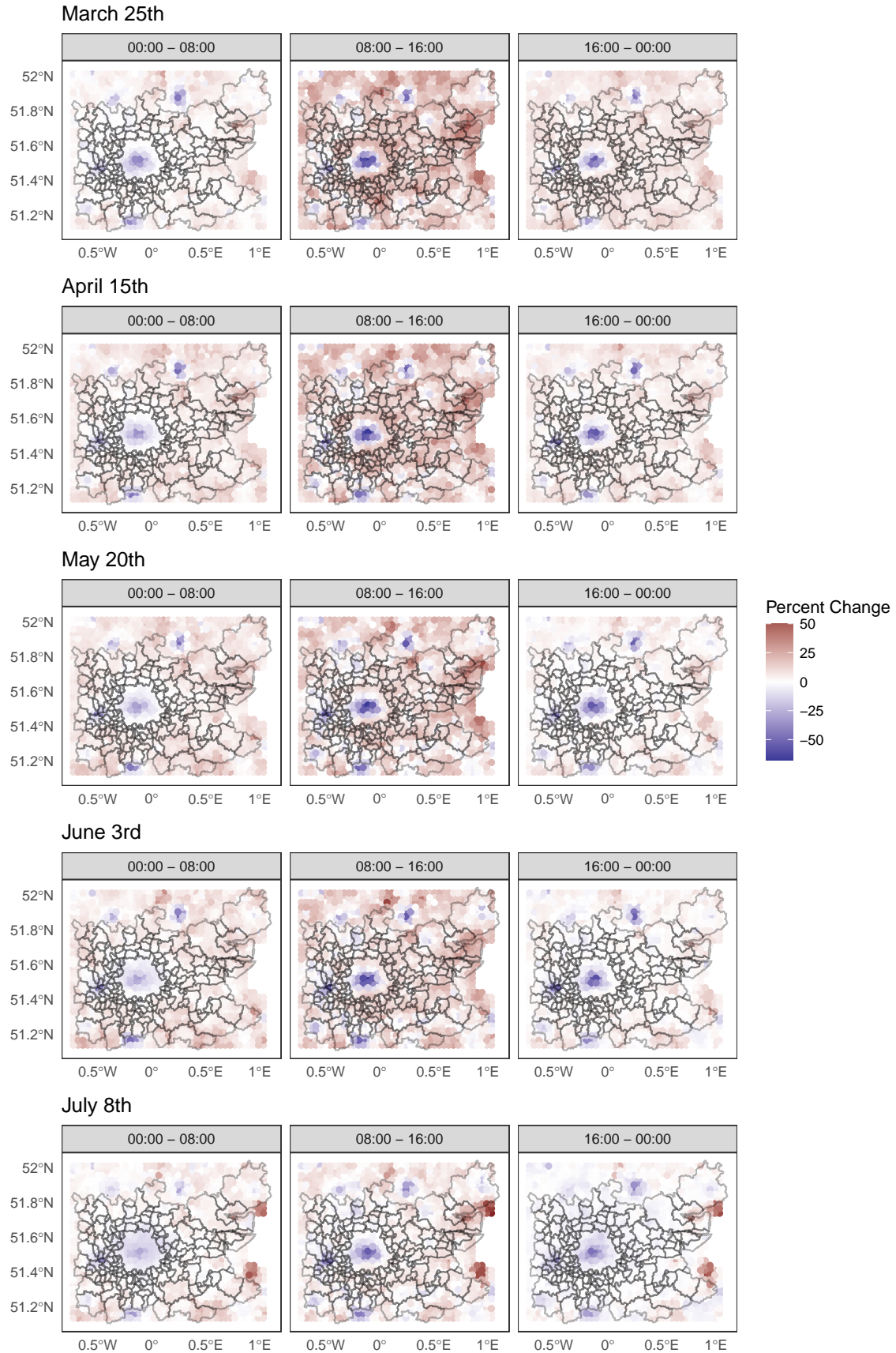


Figure 1: London Population Density Changes (Weekday)

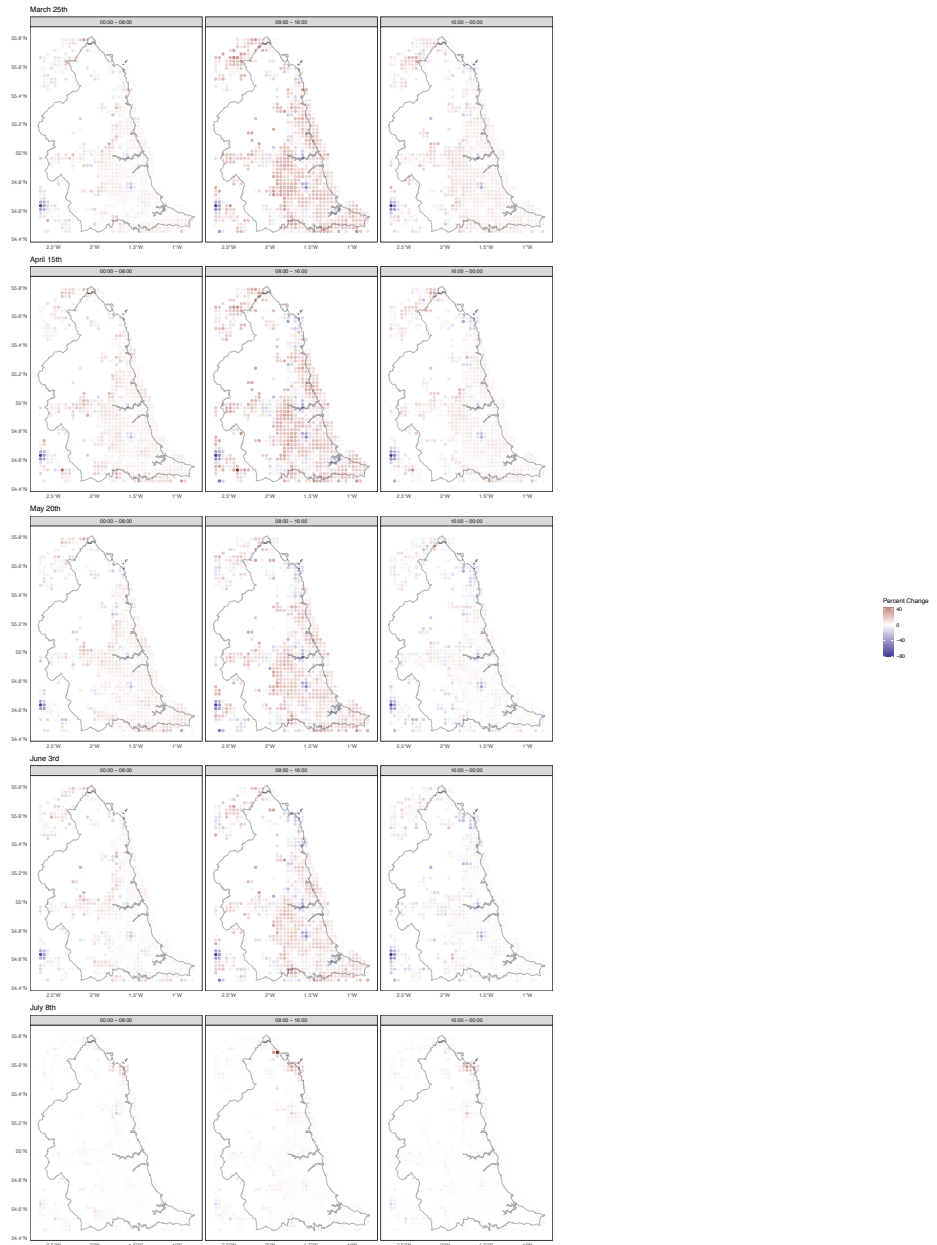


Figure 2: North East Population Density Changes (Weekday)

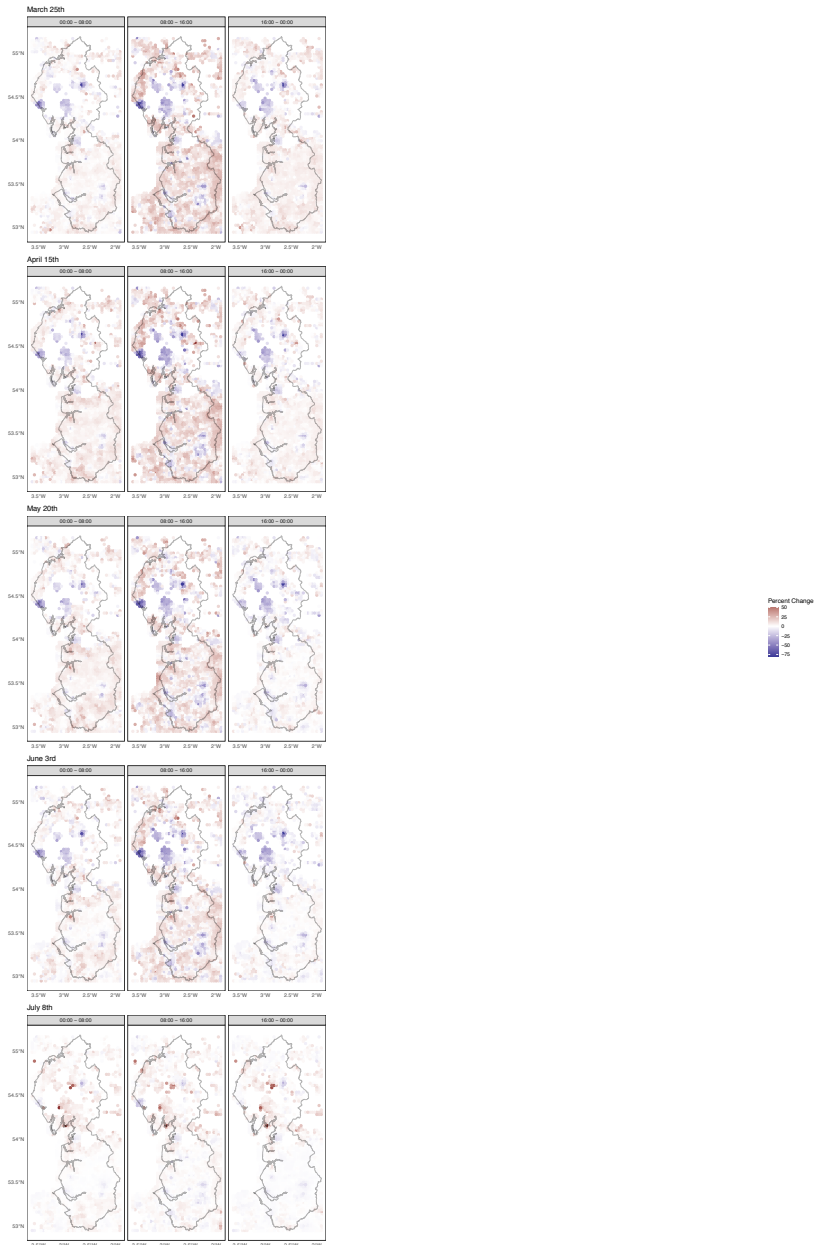


Figure 3: North West Population Density Changes (Weekday)

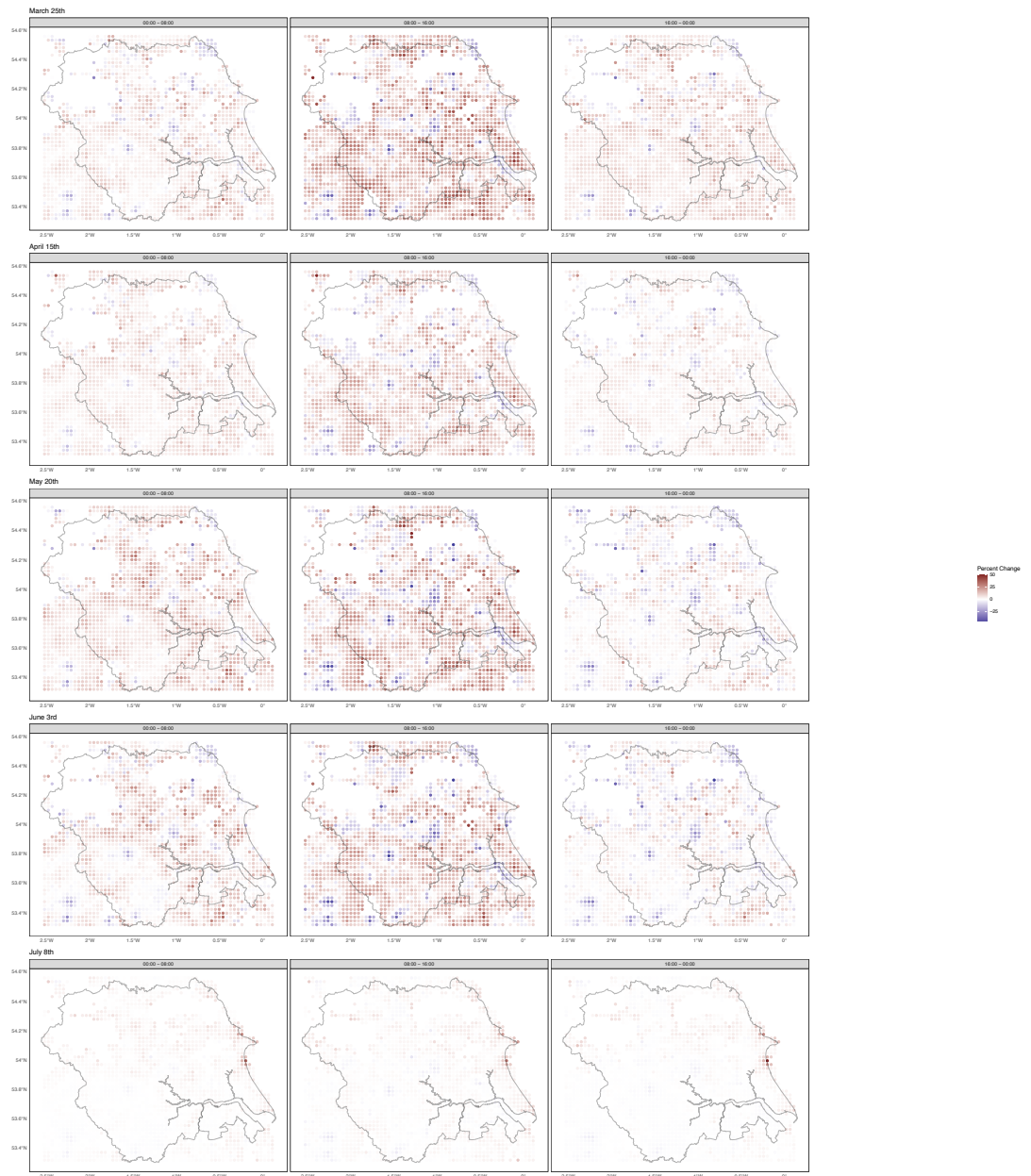


Figure 4: Yorkshire and The Humber Population Density Changes (Weekday)

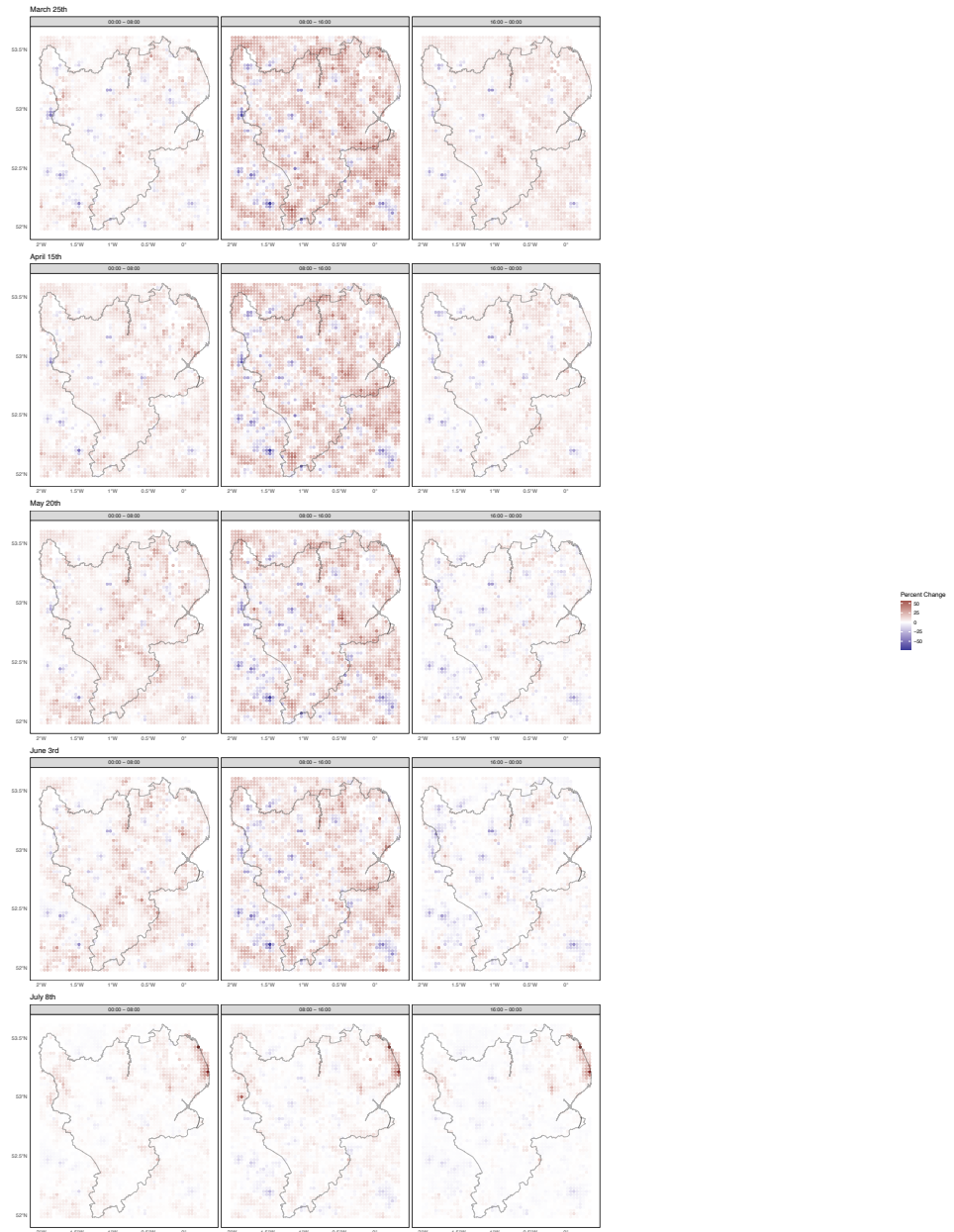


Figure 5: East Midlands Population Density Changes (Weekday)

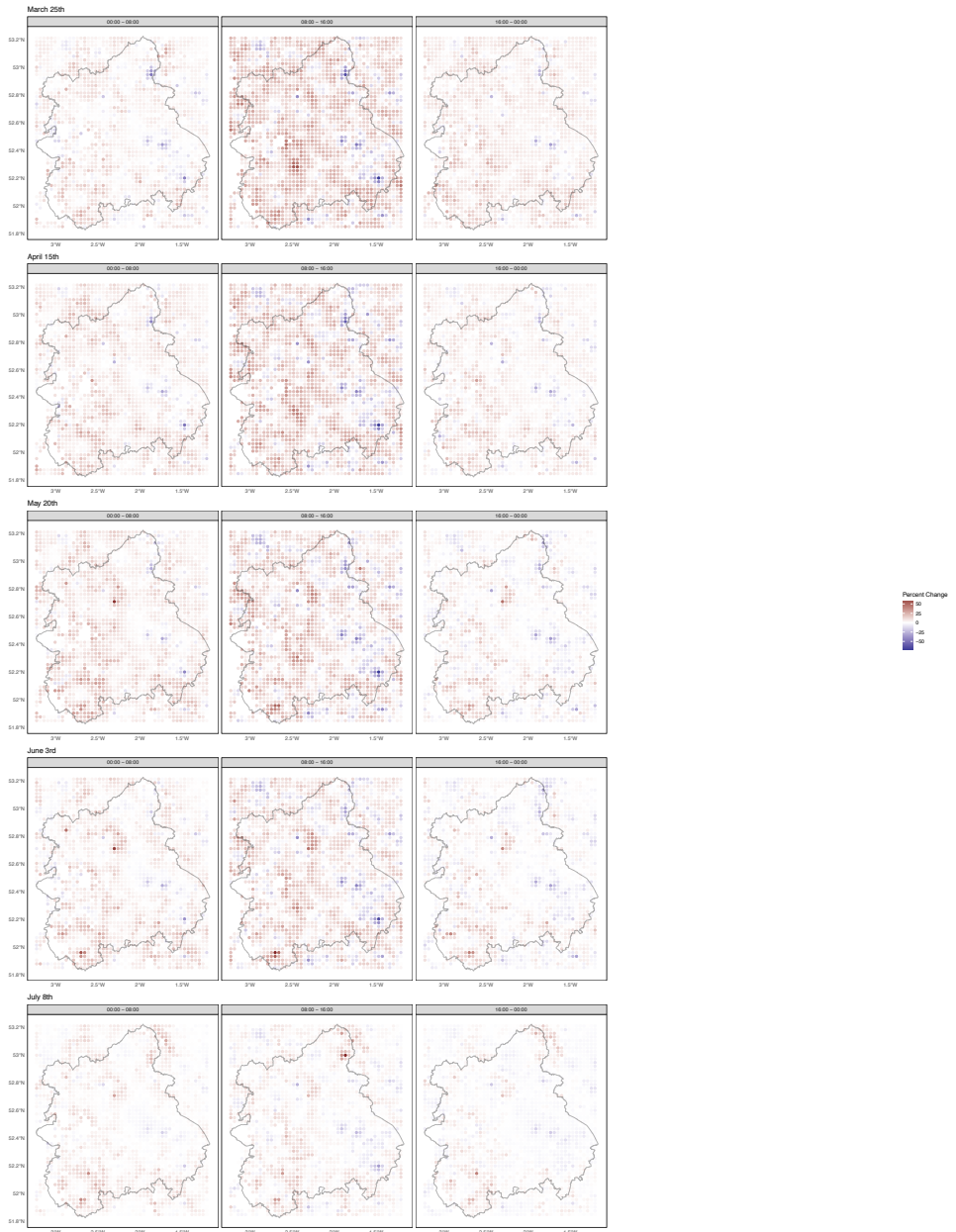


Figure 6: West Midlands Population Density Changes (Weekday)

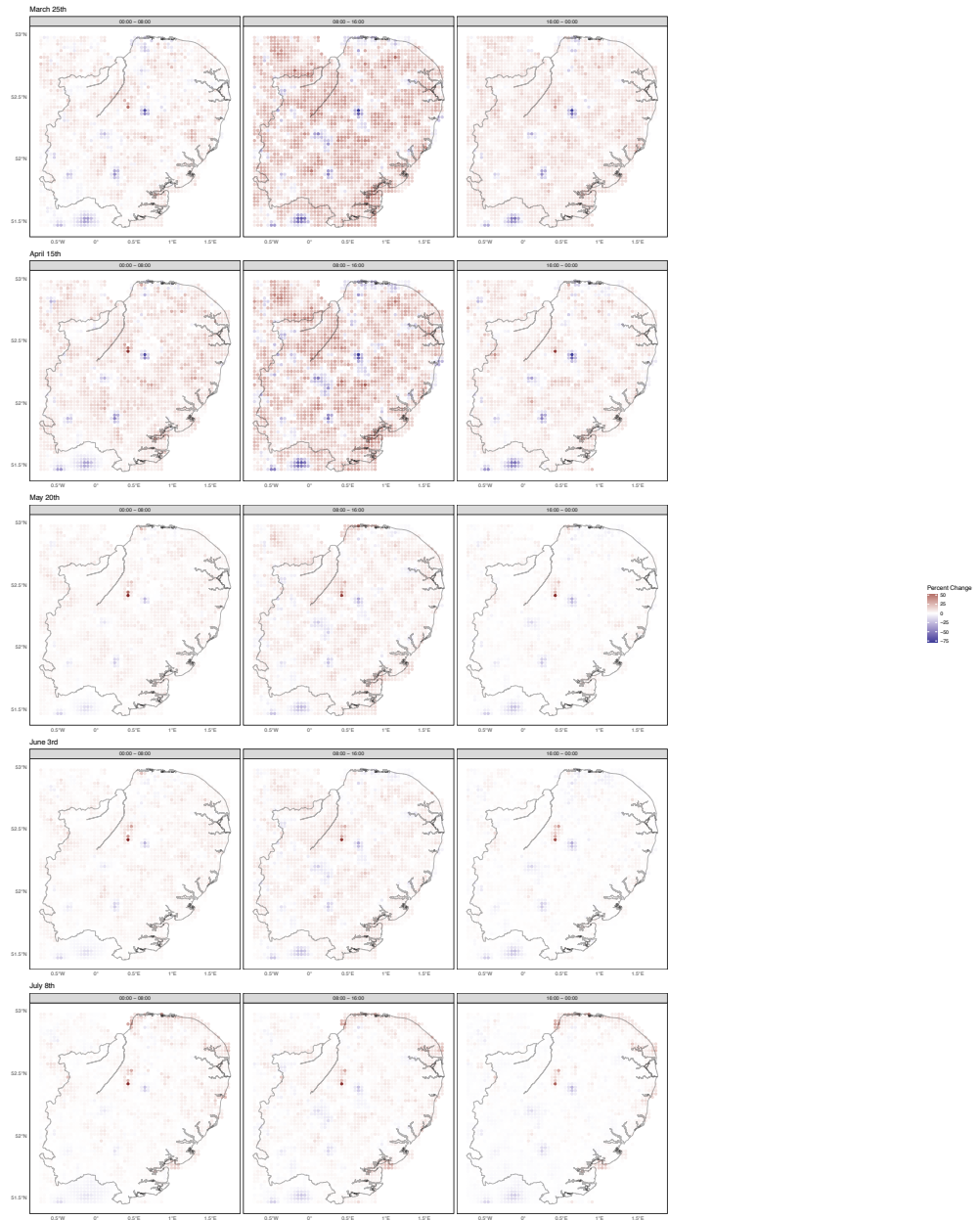


Figure 7: East of England Population Density Changes (Weekday)

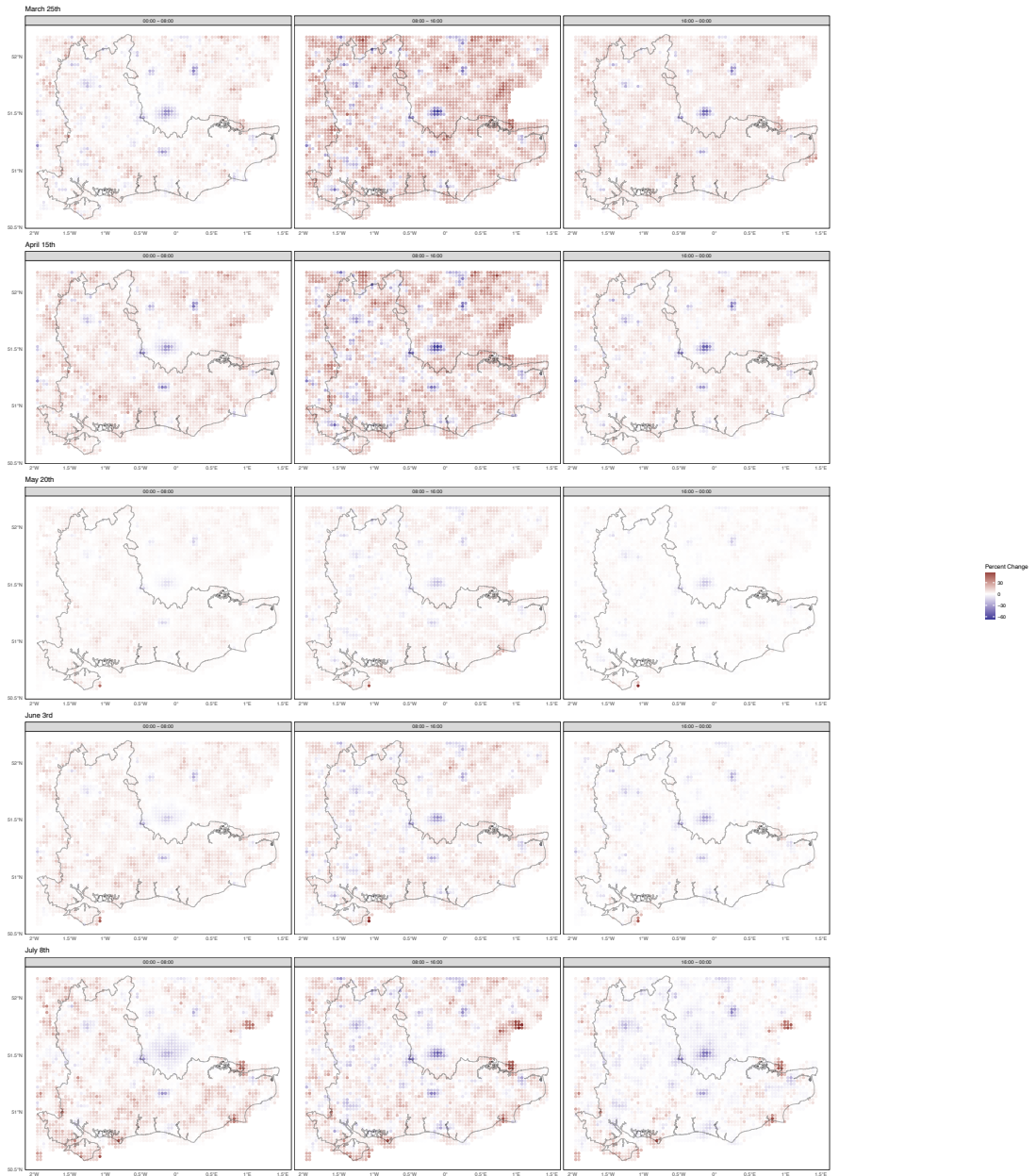


Figure 8: South East Population Density Changes (Weekday)

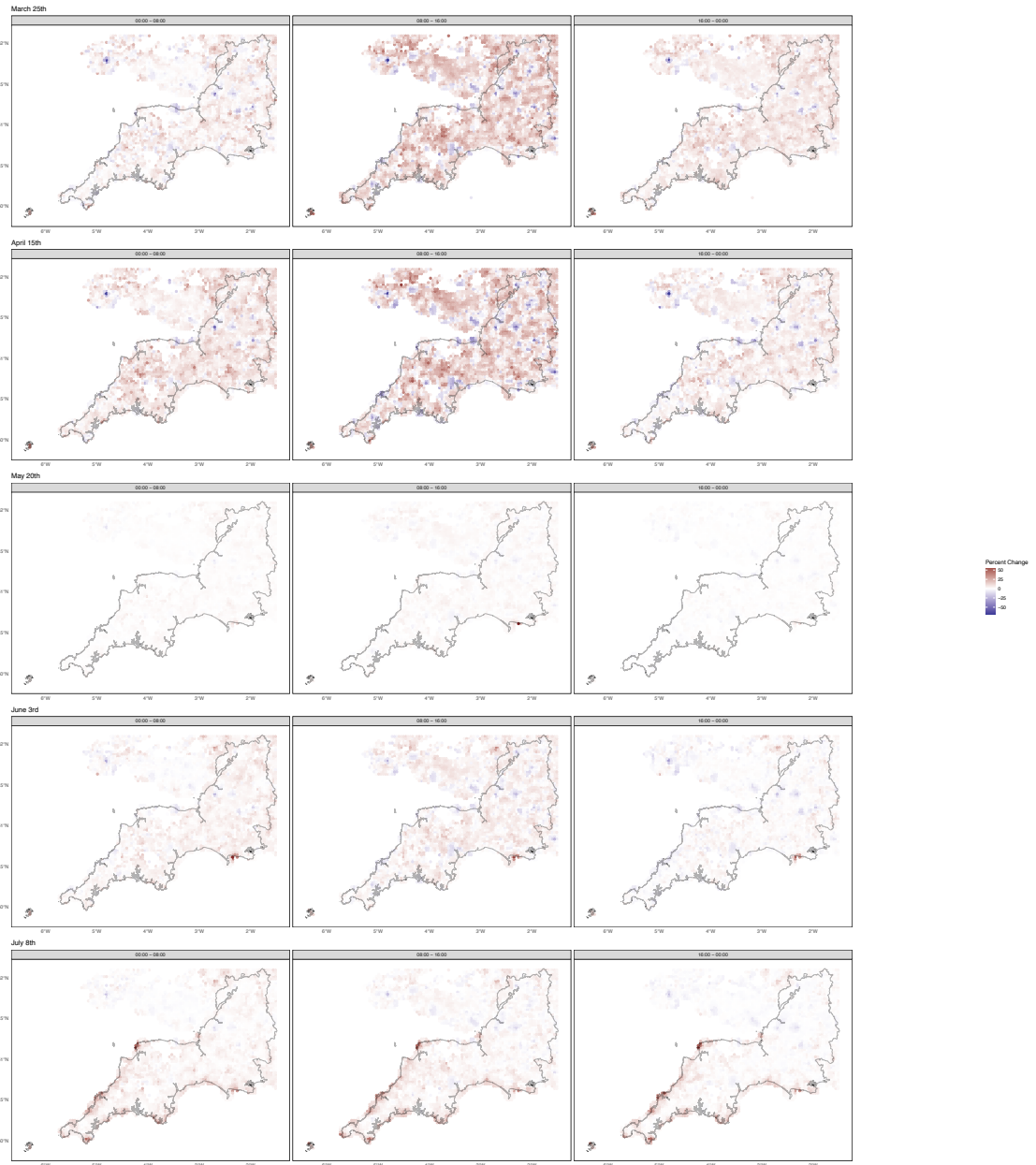


Figure 9: South West Population Density Changes (Weekday)

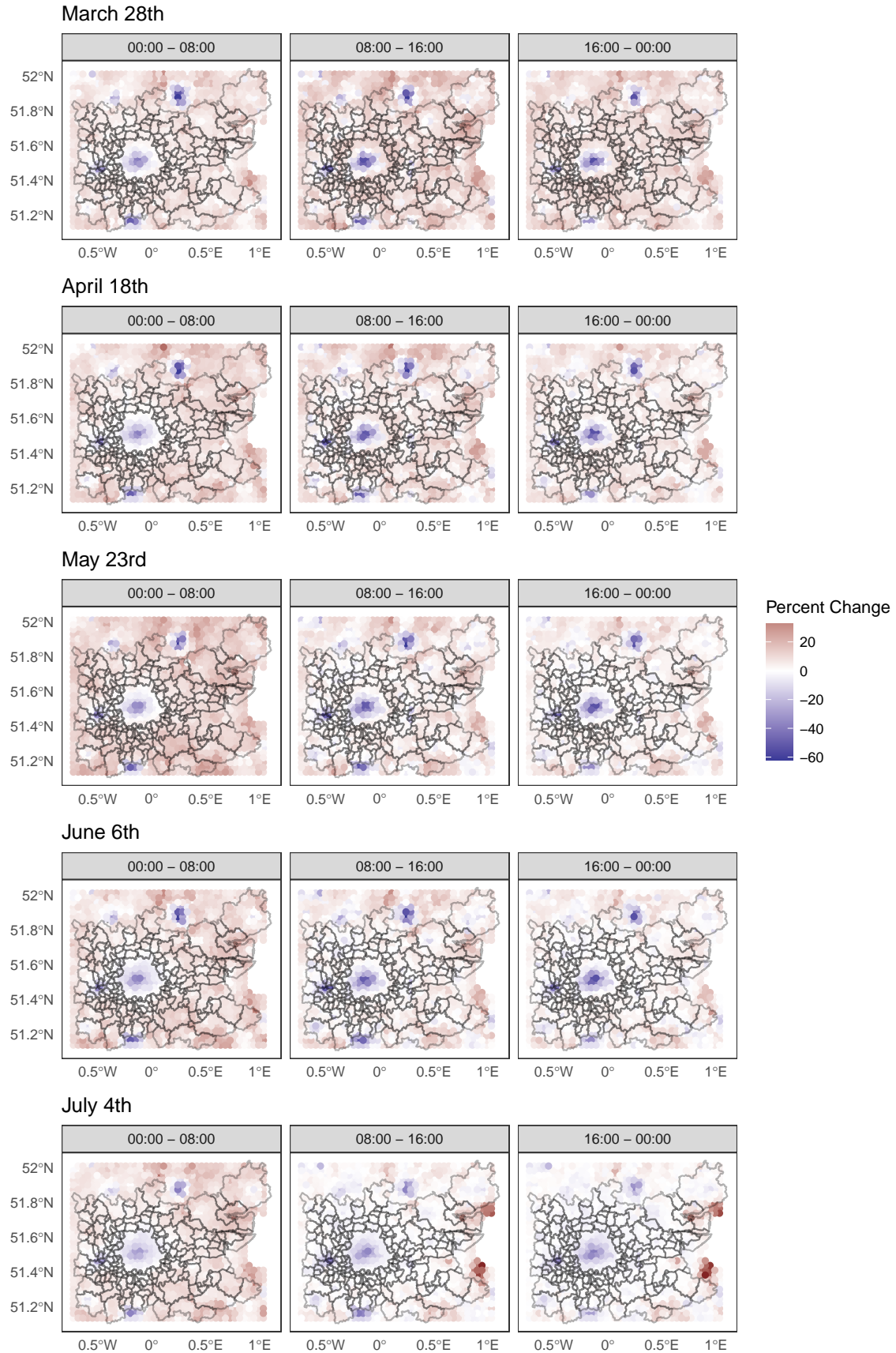


Figure 10: London Population Density Changes (Weekend)

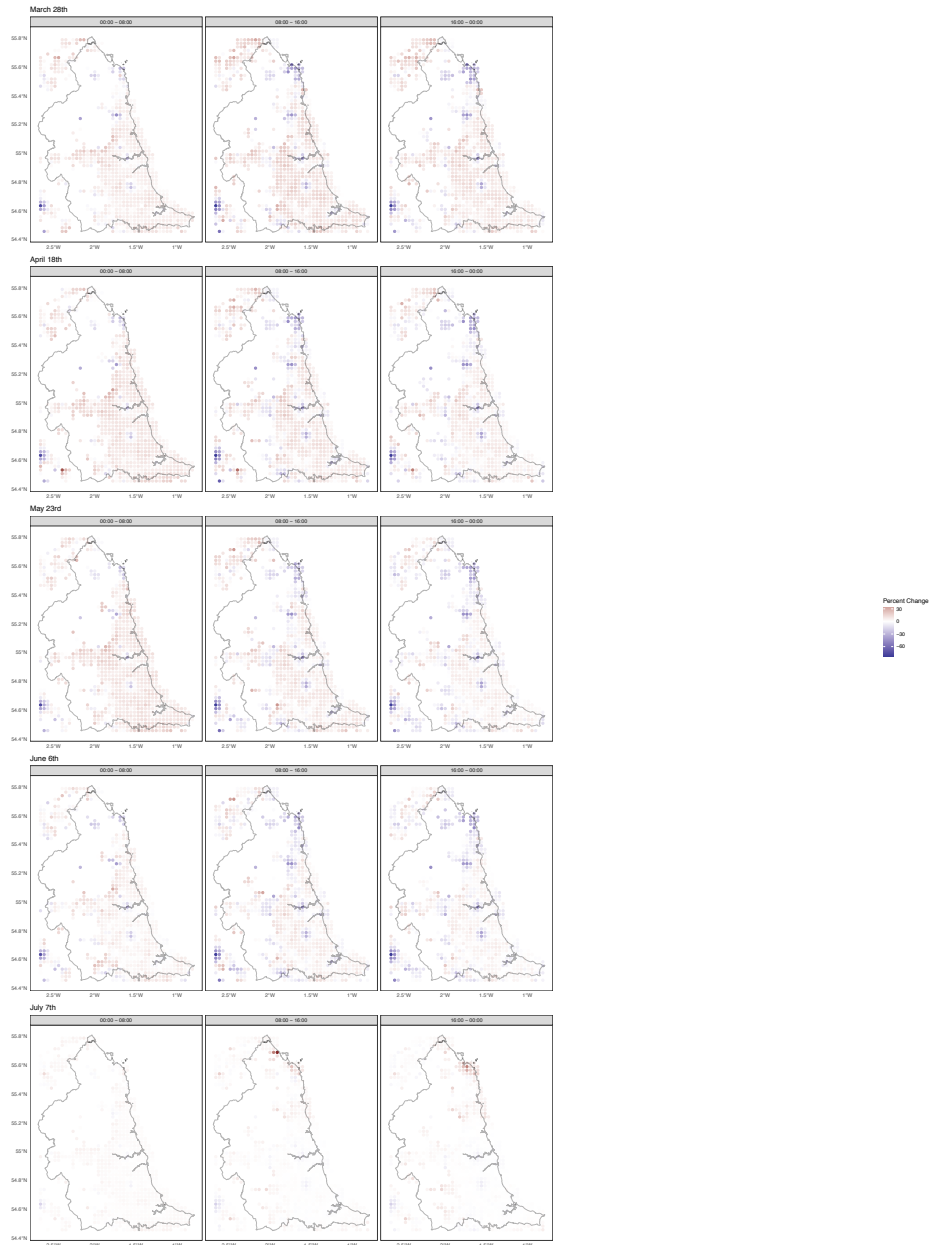


Figure 11: North East Population Density Changes (Weekend)

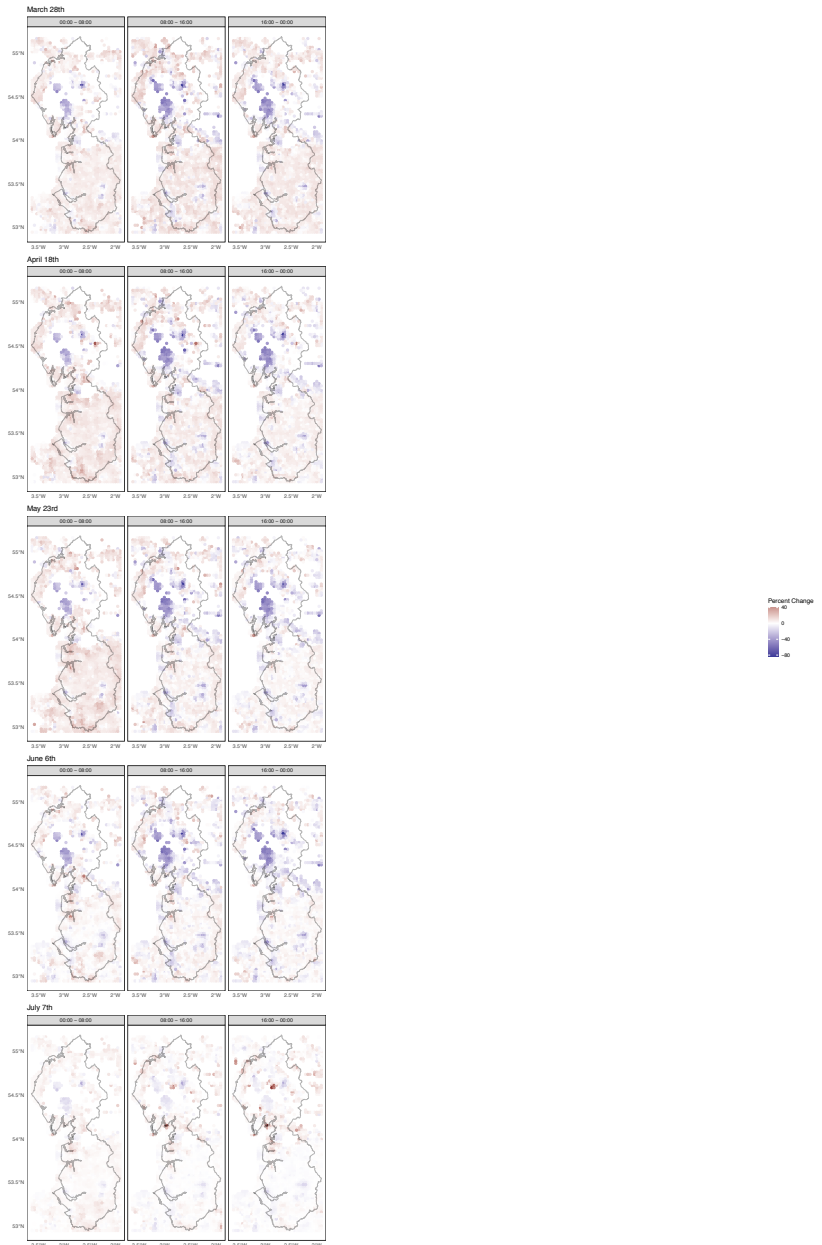


Figure 12: North West Population Density Changes (Weekend)

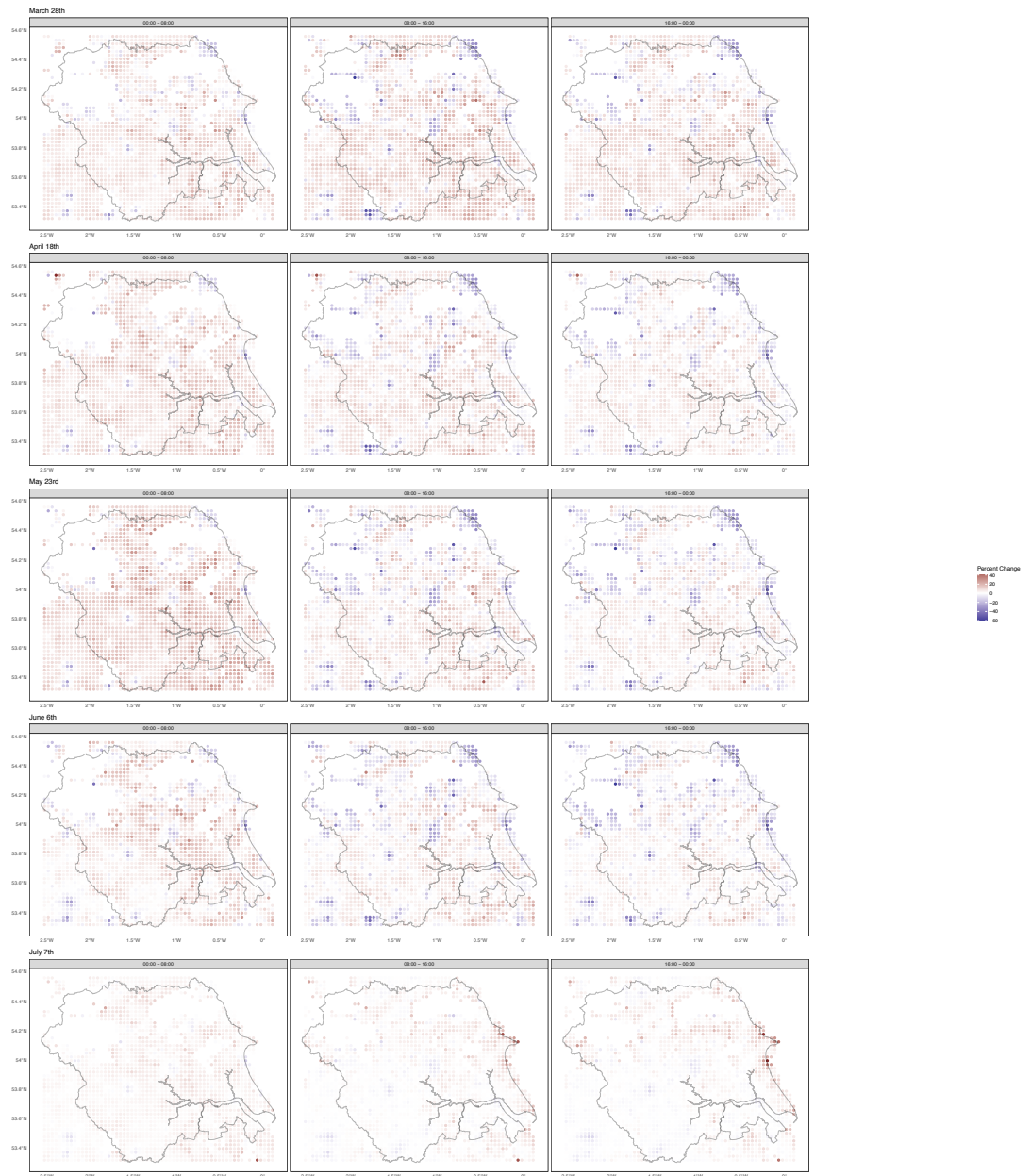


Figure 13: Yorkshire and The Humber Population Density Changes (Weekend)

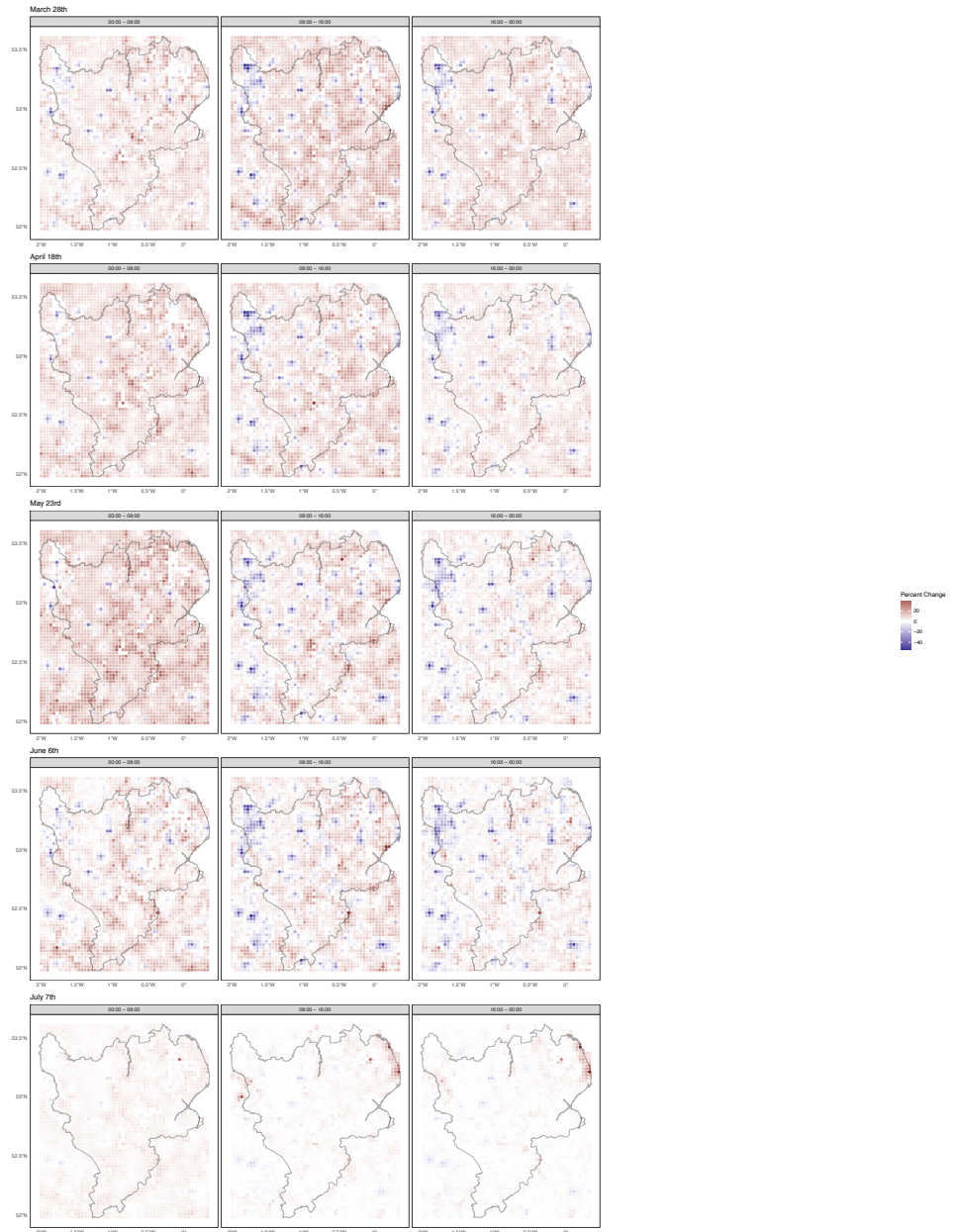


Figure 14: East Midlands Population Density Changes (Weekend)

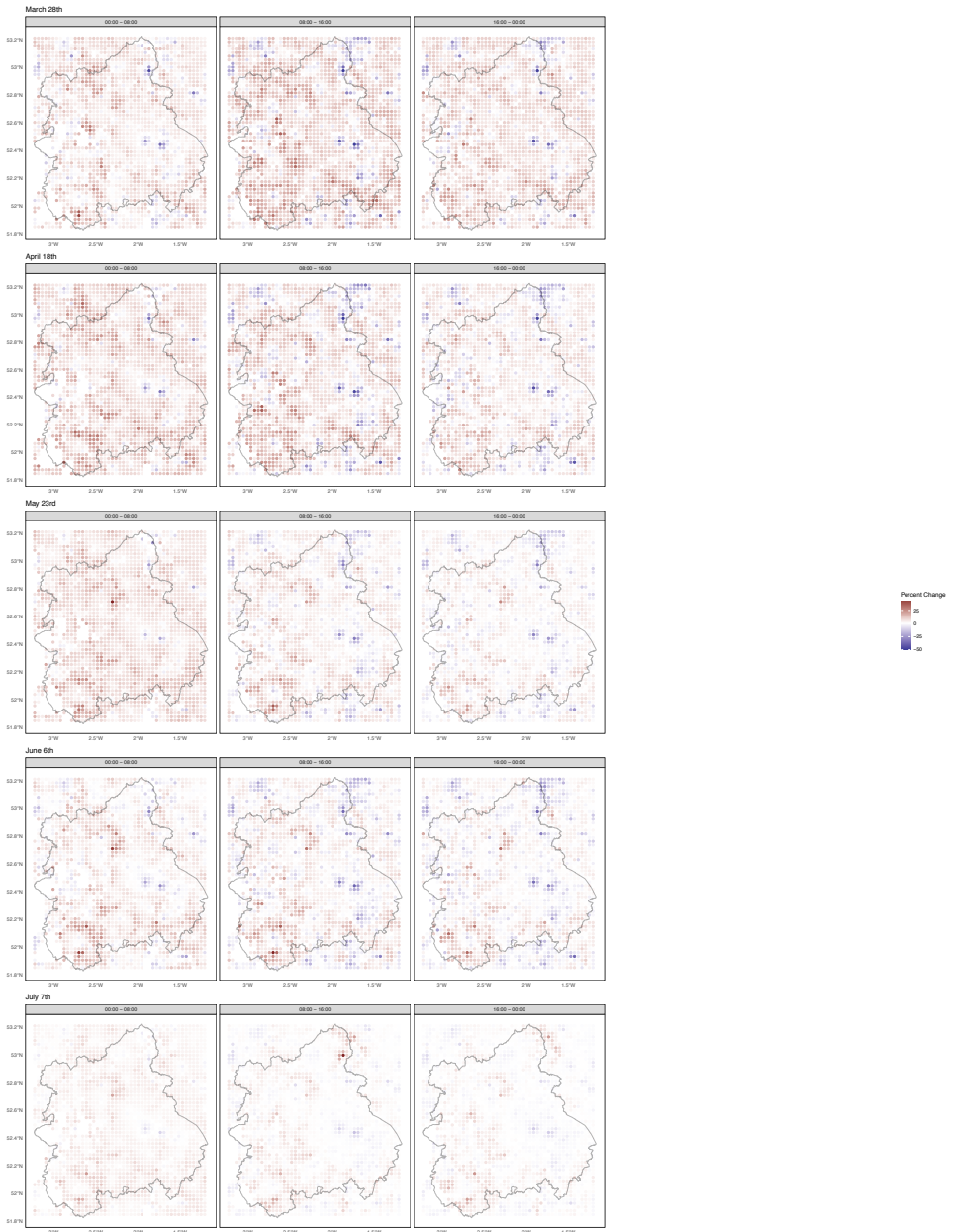


Figure 15: West Midlands Population Density Changes (Weekend)



Figure 16: East of England Population Density Changes (Weekend)

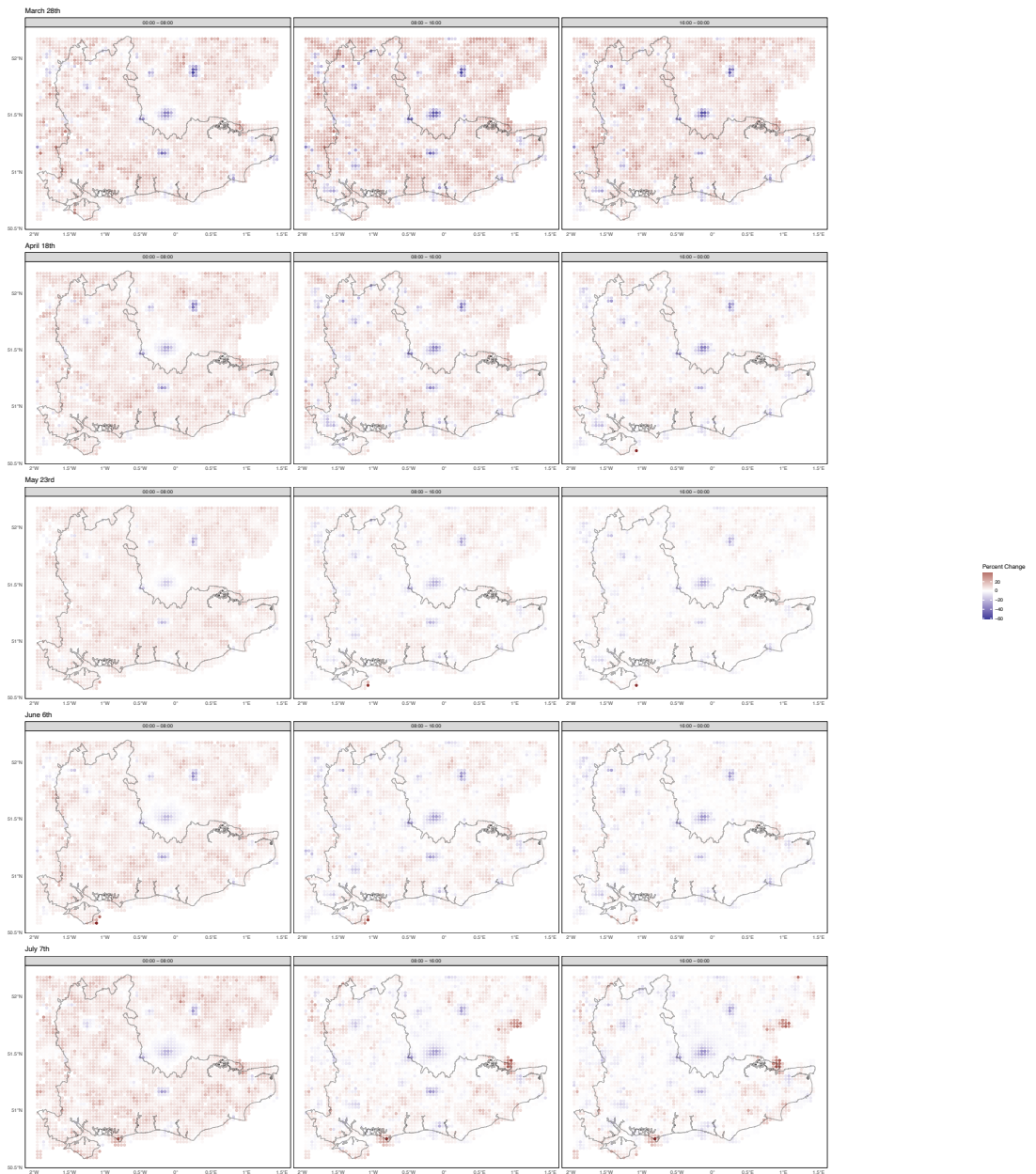


Figure 17: South East Population Density Changes (Weekend)

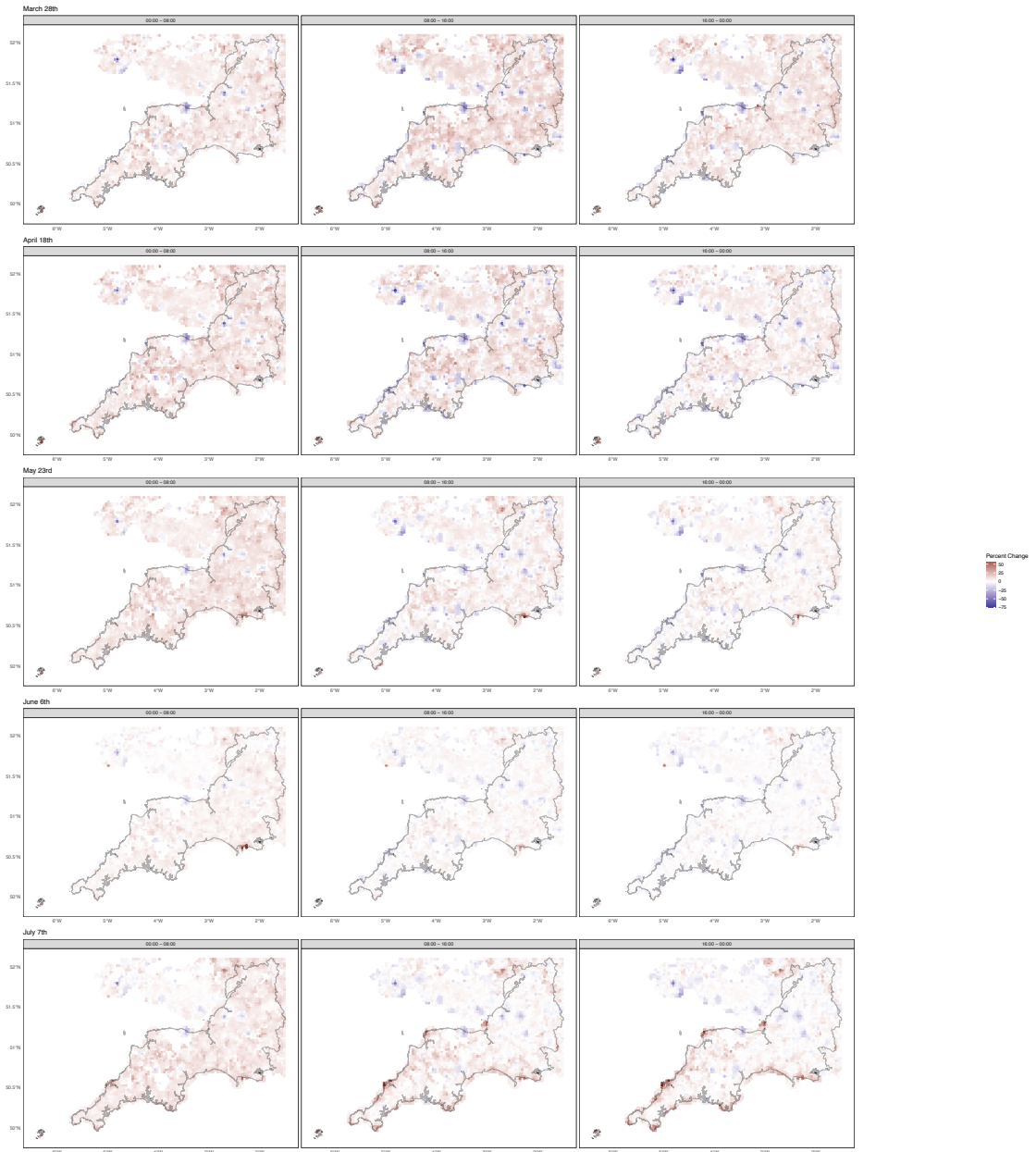


Figure 18: South West Population Density Changes (Weekend)