LOCAL AUTHORITY TRAVEL AND TRANSPORT DATA WEEKLY DIGEST

Week commencing 3rd January 2021

TRANSPORT TECHNOLOGY FORUM

INTRODUCTION

Since the imposition of travel restrictions designed to help dramatically reduce the spread of Covid-19, the Transport Technology Forum has led the collation of transport data from local authorities into information used to understand changes in travel behaviour.

Authorities from cities, towns and counties across England are sharing urban traffic control and automated traffic counter data from the roadside, as well as information on cycling and car parks. Industry has also supplied video analytics and floating vehicle data patterns. This sits alongside data the Department receives about rail and air, public transport, freight and maritime to summarise how, where and when people and goods are moving around the country.

The Transport Technology Forum can publish outcomes from this data set for interested parties, not least those bodies who went above and beyond the call to share their data with us.

ABOUT THE FORUM

This document has been prepared by Arup on behalf of the Transport Technology Forum (TTF) as part of its remit to drive more effective and efficient management of existing and new road networks, as a key national opportunity before, during and after the COVID-19 emergency. Road transport will remain a key pillar of how people and goods move across the nation, not just on strategic roads. Improving road travel through technology is a core aim of the Forum. The Forum promotes a collaborative culture to open-up the opportunity and address the caution which has historically impeded efficiency and innovation.

ABOUT THIS REPORT

The report provides an ongoing snapshot of travel, summarising weekly, daily, and hourly changes based on information shared by:

- Traffic – 29 data providers, geographically covering approximately 107 local authority districts.
- Cycling – 16 data providers, geographically covering approximately 84 local authority districts including nationwide canal and river paths.
- Parking – 18 data providers, geographically covering more than 27 local authorities nationally.

This provides an overview of how public behaviour is changing and what new patterns are being experienced. Local Authorities can benefit by being able to compare what is happening in their areas with the national picture, allowing local and national comparisons to be drawn.

WEEKLY HIGHLIGHTS AND SUMMARY

Traffic

- Overall traffic has dropped to an average of 21.3% below the baseline for the w/c the 3rd of January with the Monday of this week being a bank holiday with very low rates of traffic. Traffic levels for the remainder of the week show a slight increase compared to the previous week, likely due to the return of schools and workplaces following the Christmas break but overall traffic flow is low.
- Figure 3.1 shows the weekday traffic counts are relatively low with no distinguishable AM and PM peaks.
- Figure 3.2 shows that the weekend traffic counts are much higher than the previous week.
- Figure 4.1 shows that the volume of all vehicle classes has fallen over the past few weeks.

Cycling

- Figures 6.1 and 6.2 both show that the cycling counts are lower than previous weeks, likely due to the rainy conditions.

1. CHANGE IN AVERAGE DAILY TRAFFIC FLOW OVER TIME
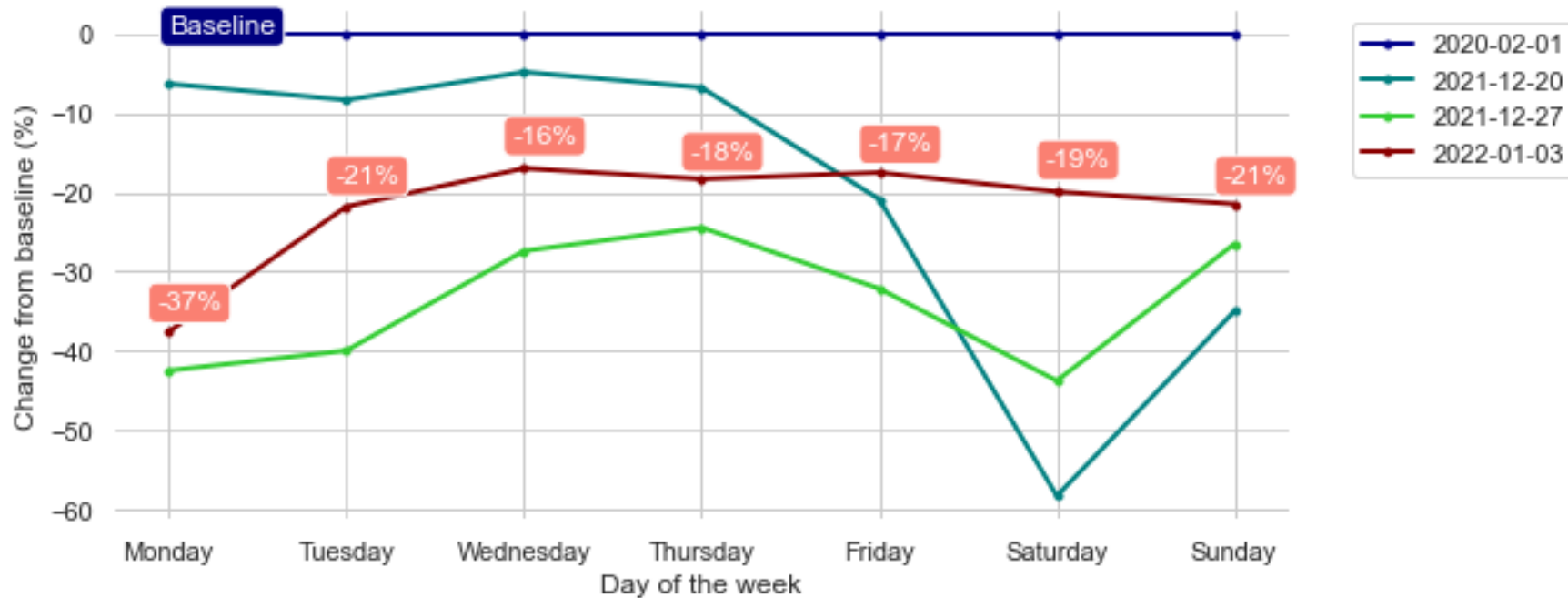
Compared to baseline (%)

Traffic rates are showing a slight increase compared to previous weeks, which is likely due to the return of schools and workplaces following the Christmas break.

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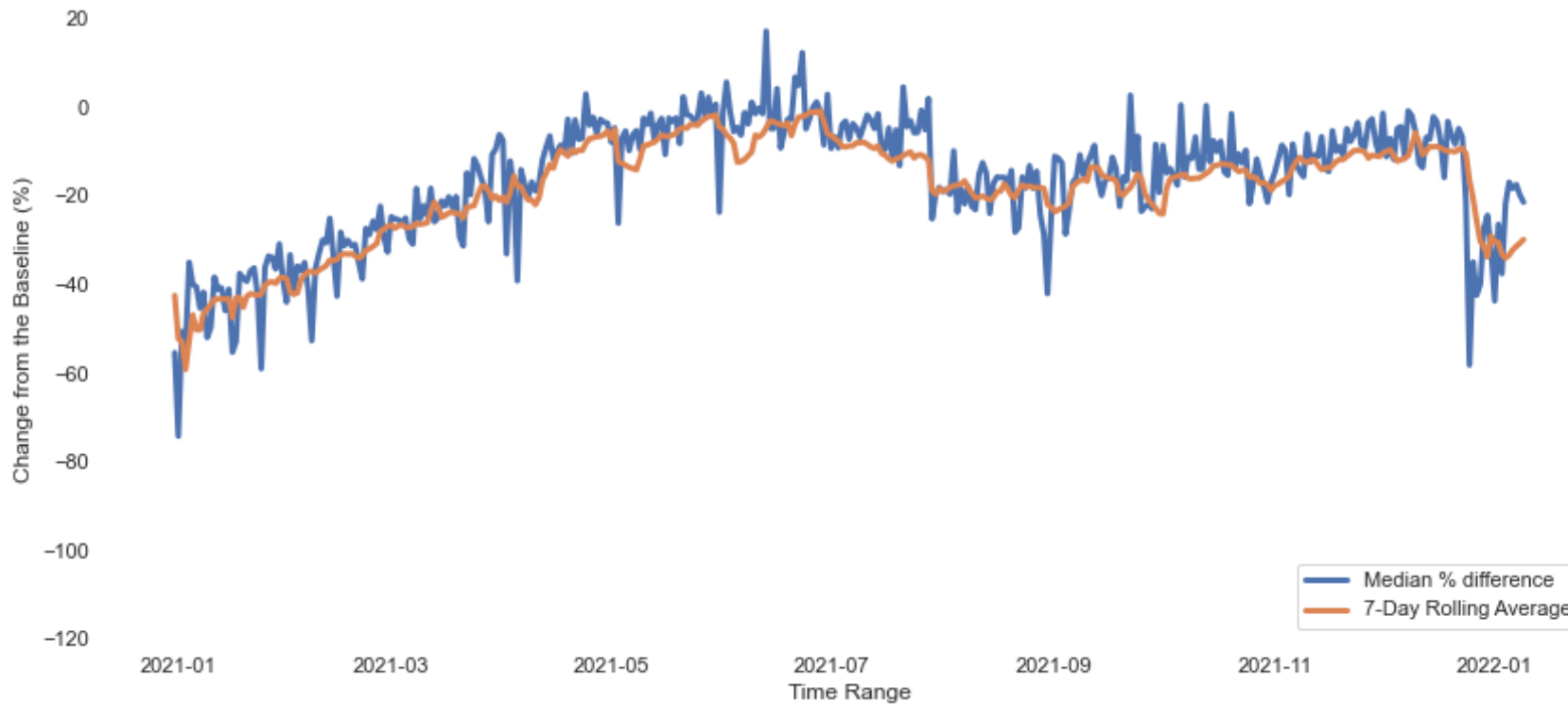
2. CHANGE IN AVERAGE DAILY TRAFFIC FLOW BY DAY OF WEEK

Compared to baseline (%)

Overall levels drop to an average of 21.3% below the baseline. Monday of this week was the Observed New Year's Day bank holiday, which explains the low rates of traffic on this day.
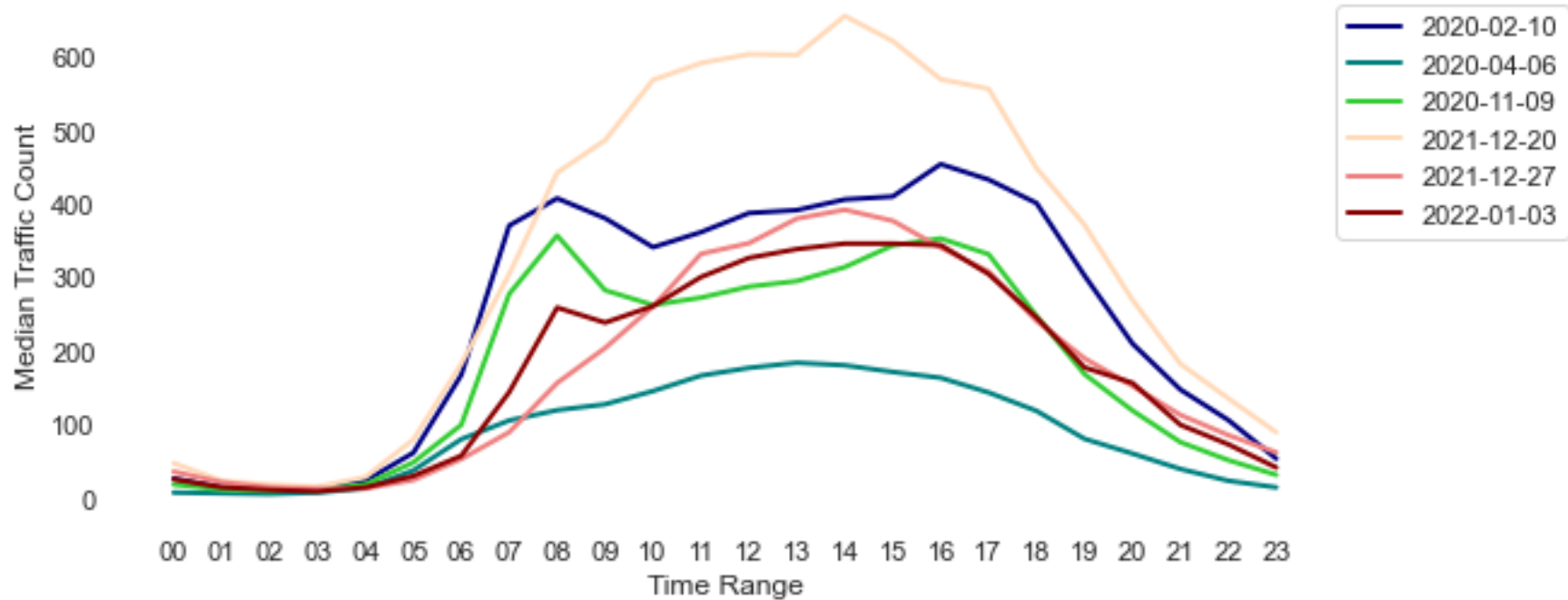

Average day of week traffic volumes compared to the baseline week (01/02/2020), and the 3 most recent weeks.

3.1. MEDIAN WEEKDAY TRAFFIC BY HOUR OF DAY

Hourly traffic counts

The weekday traffic counts are low, similar to the previous week, with no distinguishable AM or PM peaks.
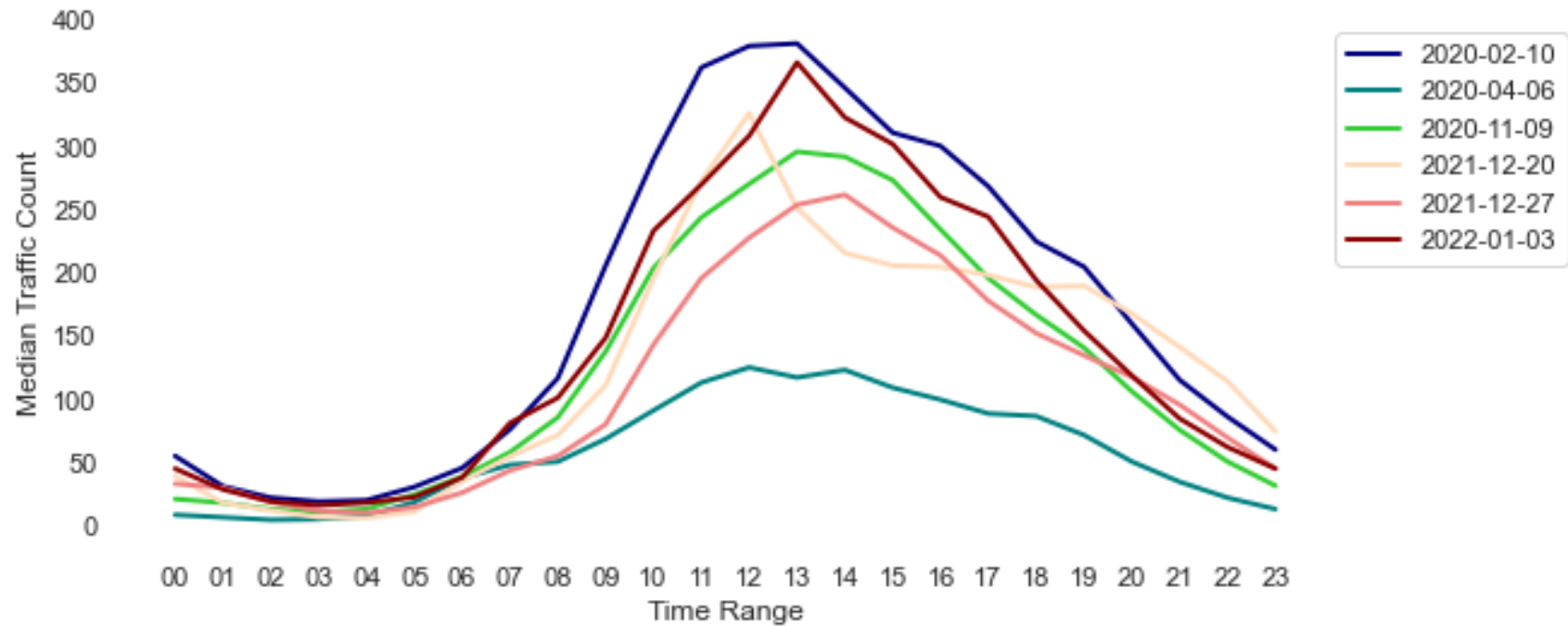

Weekday traffic volumes compared to a pre-pandemic week (10/02/20) and early lockdown (06/04/20) across all datasets. This graph uses the median traffic count for each hour of each weekday, as well as the median across all weekdays. This is different to what has been published in previous reports (before 15 March 2021), which made use of the sum of traffic counts for each hour of each weekday, and the average across all weekdays.

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3.2. MEDIAN WEEKEND TRAFFIC BY HOUR OF DAY

Hourly traffic counts

The weekend traffic counts are higher than the previous week and similar to the pre-pandemic baseline with a midday peak.


Weekend traffic volumes compared to a pre-pandemic week (10/02/20) and early lockdown (06/04/20) across all datasets. This graph uses the median traffic count for each hour of each weekend, as well as the median across all weekdays. This is different to what has been published in previous reports (before 15 March 2021), which made use of the sum of traffic counts for each hour of each weekend, and the average across all weekends.

7

4.1. CHANGE IN ROLLING AVERAGE WEEKDAY TRAFFIC FLOW BY VEHICLE CLASS

Compared to baseline (%)

The volume of all vehicle classes has fallen over the past few weeks.
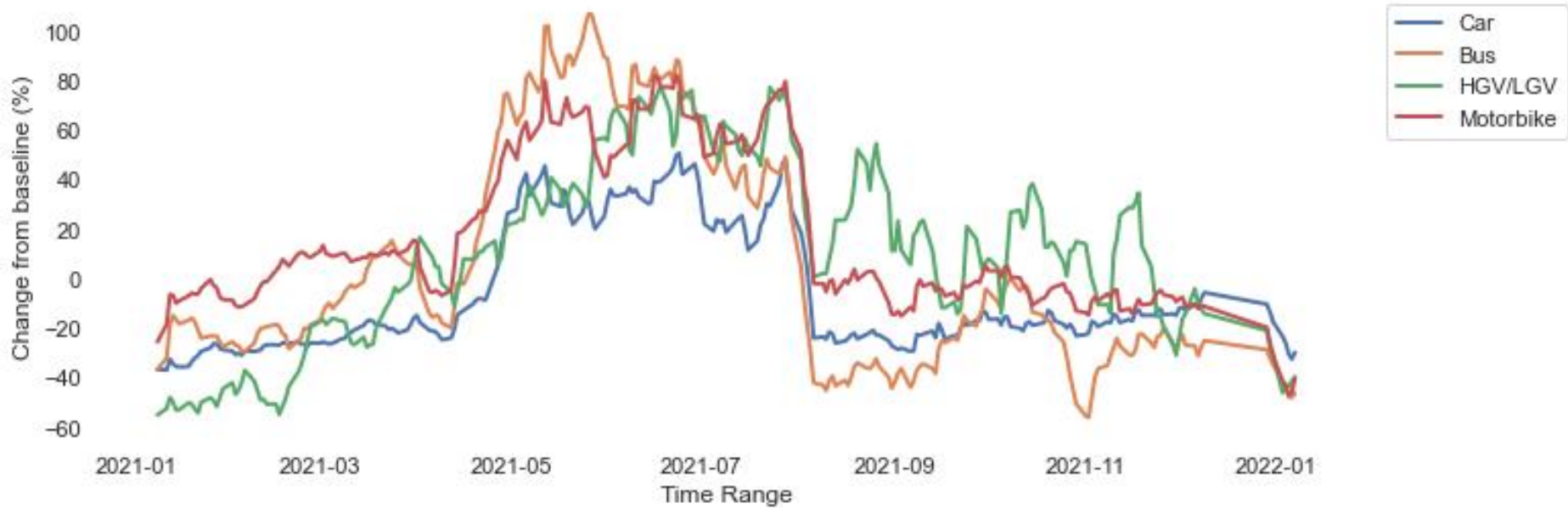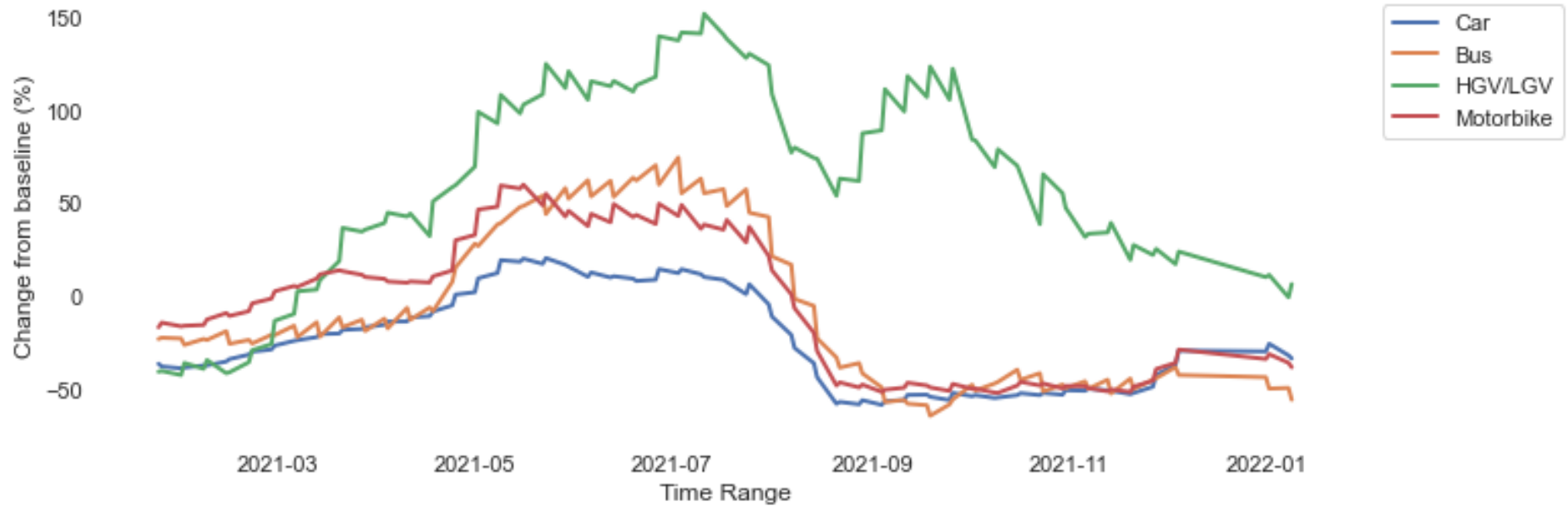

Change in average vehicle trips by vehicle class where available in the source dataset.

4.2. CHANGE IN ROLLING AVERAGE WEEKEND TRAFFIC FLOW BY VEHICLE CLASS

Compared to baseline (%)

Weekend traffic flow has remained relatively constant across all vehicle classes over the past couple of months.
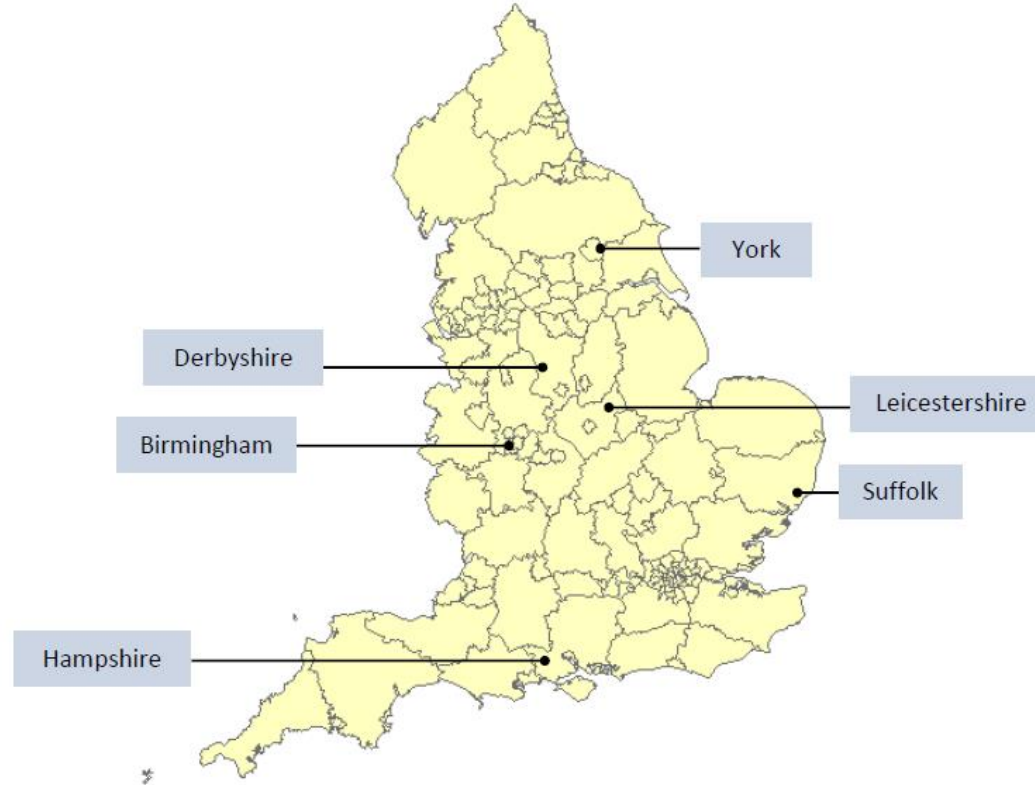

Change in average vehicle trips by vehicle class where available in the source dataset.

5.1. FOCUS ON LOCAL AUTHORITIES

Map of local authorities

Five local areas are examined that provide a good geographic spread.

Data has been provided by: Birmingham City Council, City of York Council, Suffolk County Council, Hampshire Council, Derbyshire County Council, Leicestershire County Council (excludes Leicester City).
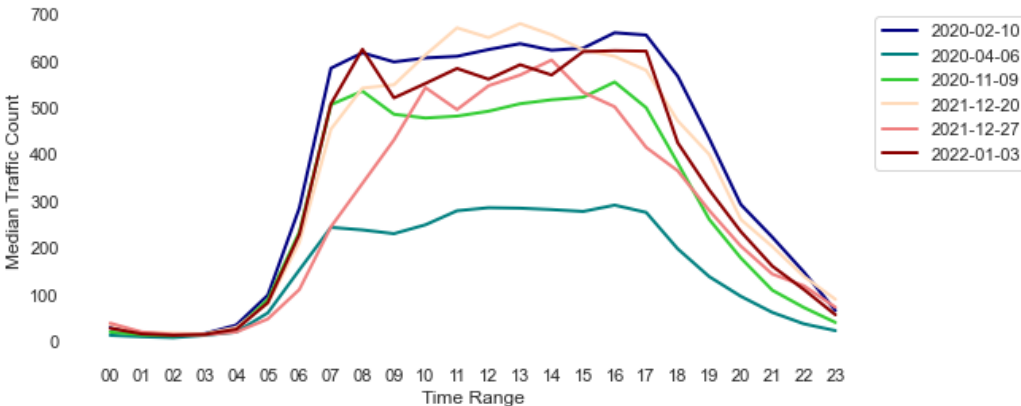
5.2. MEDIAN WEEKDAY TRAFFIC BY HOUR OF DAY FOR LOCAL AUTHORITIES
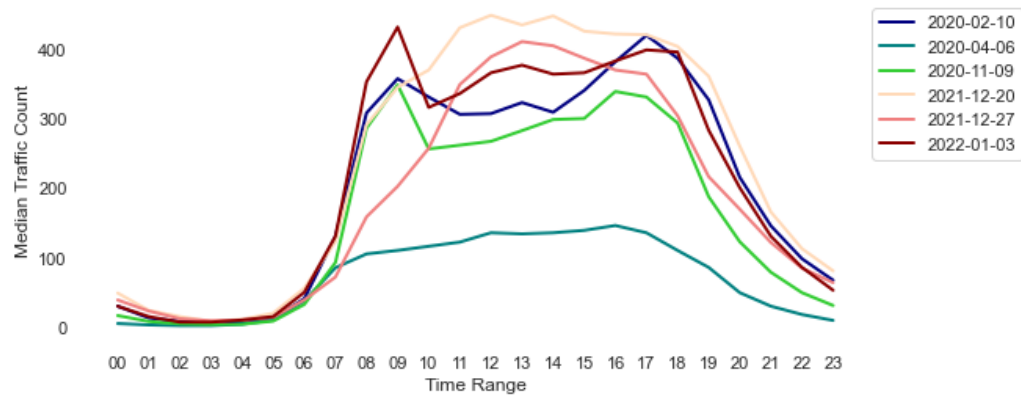
Hourly traffic counts
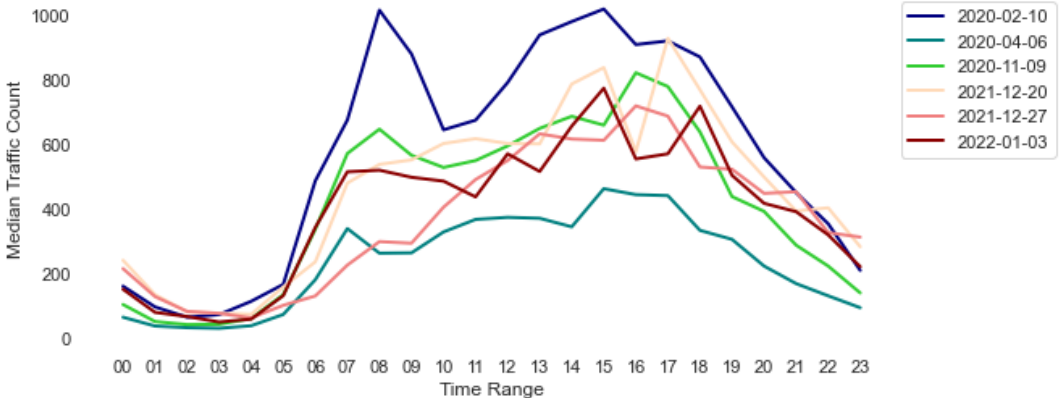
5.2.1. BIRMINGHAM

Traffic counts in Birmingham are higher than those seen during the previous week with a peak in the afternoon.

5.2.2. SUFFOLK

Traffic levels in Suffolk are higher than the previous weeks and with more distinguishable AM and PM peaks.
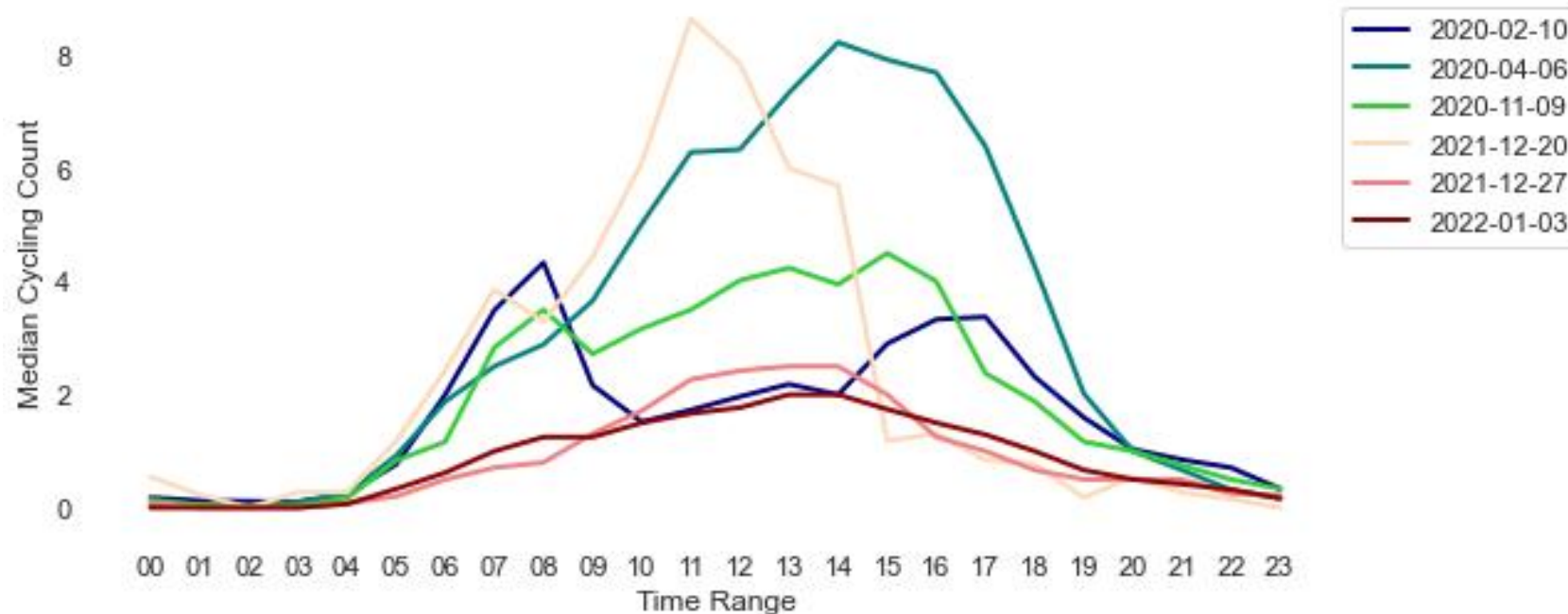
5.2.3. CITY OF YORK

Traffic levels in the City of York are higher than previous weeks. The traffic profile this week has clear AM and PM peak.

6.1 MEDIAN WEEKDAY CYCLING BY HOUR OF DAY

Hourly counts

The weekday cycling counts are similar to the previous week with low counts and a midday peak.

Weekday cycling volumes compared to a pre-pandemic week (10/02/20) and early lockdown (06/04/20) across all datasets. This graph uses the median cycling count for each hour of each weekday, as well as the median across all weekdays. This is different to what has been published in previous reports (before 15 March 2021), which made use of the sum of cycling counts for each hour of each weekday, and the average across all weekdays.

6.2 MEDIAN WEEKEND CYCLING BY HOUR OF DAY

Hourly counts

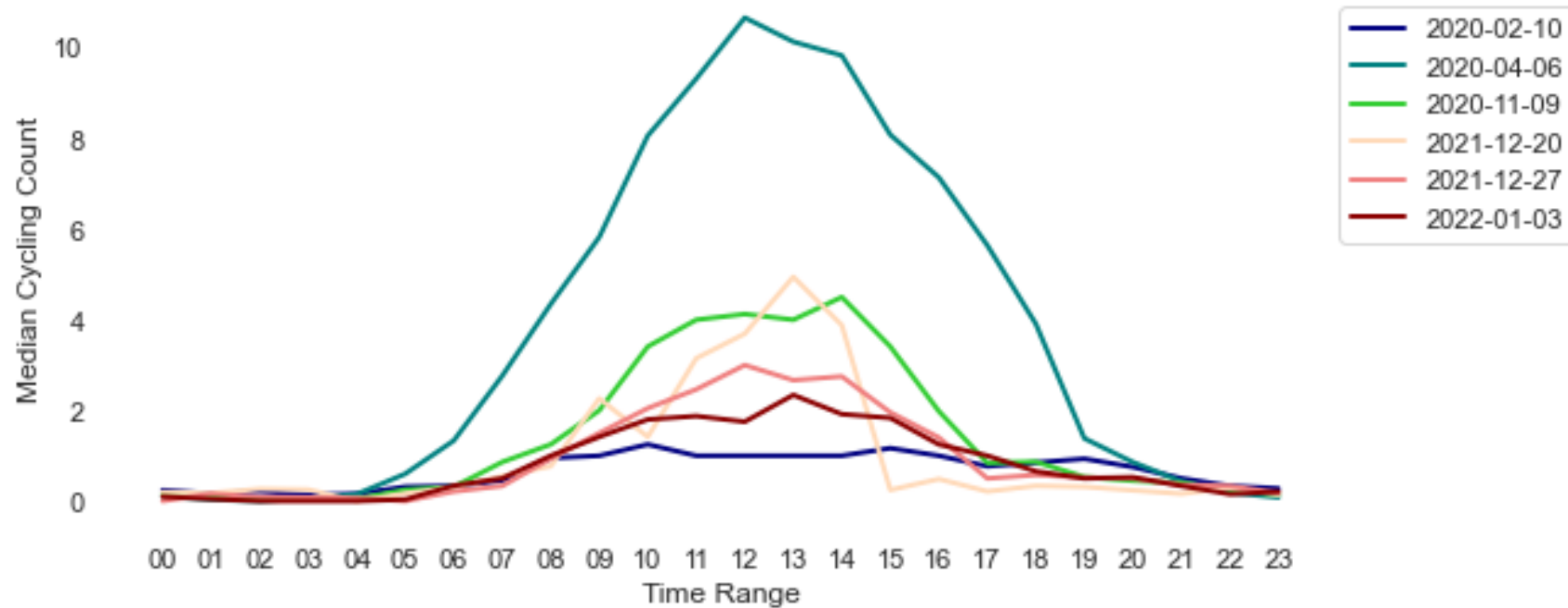Weekend cycling counts are lower than the previous week, which may be due to rainy conditions.

Weekend cycling volumes compared to a pre-pandemic week (10/02/20) and early lockdown (06/04/20) across all datasets. This graph uses the median cycling count for each hour of each weekend day, as well as the median across all weekend days. This is different to what has been published in previous reports (before 15 March 2021), which made use of the sum of cycling counts for each hour of each weekend day, and the average across all weekend days.

DATA METHOD

The following provides some detail behind how the data has been analysed:

- The baseline has been defined as the first week of February 2020 (1st February – 7th February) for the following reasons:
  - This is consistent with national reporting.
  - Not all data sources can provide baseline data from previous years.
  - The first week of February is considered a normal working week unaffected by poor weather and half term dates later in February.
- Each day of the week has its own baseline.
- Only those datasets for which data was available for the first week of February have been included in the baseline comparison outputs.
- Baseline comparisons at aggregated Local Highway Authority (LHA) level have only been calculated using traffic/cycling sensors that contributed to the baseline to reduce the impact of new sensors being added to data sources
- Average daily traffic volumes have been used to minimise the impact of individual sensors changing between active and inactive states.
- Averages have been calculated using the median (50th percentile) to reduce the impact of outliers.
- One location is no longer providing data to the TTF pipeline as of 30/06/2021. The removal of this source has affected the comparison of weekly levels presented in the graphs.
- Due to some erroneous data in the past week, a few cycling locations have been excluded from this week's cycling graphs.

Please note that each week not all datasets that contribute to our analysis are available when this report is produced. Therefore, as we add new datasets when they become available, enhance validation of those we've received and refine the underlying methodology, the overall values may change, however we expect the trends to remain the same.

Contact us

All authorities are encouraged to share best practice for inclusion in this report. Authorities not yet contributing but who still have data to share are encouraged to do so.

Please contact info@ttf.uk.net

Thank you to…

All local authorities and their consultancies and contractors who have shared data with the Transport Technology Forum to enable this report to be collated, and those in the wider industry who also provided data directly. The TTF, which is sponsored by the Department for Transport and Innovate UK is grateful to ITS (UK) and its members for their swift support in recruiting Local Authorities to participate.

The 'Understanding Travel Patterns during COVID-19' project has been awarded the ITS UK - Project of the Year Award 2020 which would not have been possible without all of your support. The judges were impressed that this project demonstrated how the industry can come together, and underlined how the TTF can coordinate a collaborative front with Local Authorities and commercial data suppliers to collect, process and visualise over 16 million travel movements during the lockdown period and beyond.

This report provides regularly updated intelligence and findings from the Transport Technology Forum Local Authority Data Reporting Pipeline Project. This project is collecting and analysing traffic and travel data from local highway authorities across England to present a national picture of travel patterns and behaviour.