

COVID-19

Local authority travel and transport data

Weekly digest



Week Commencing

28th September 2020

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 is able to 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 the Transport Technology Forum 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 current 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.

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.

Highlights summary

The following provides a high-level summary of the key findings within the data:

Traffic Flow

- Daily Traffic for the week commencing 21st September again saw a minor increase of less than 1 percentage point when compared to the previous week, with the overall traffic count average for the week remaining at 8% below the baseline (first week in February 2020).
- Tuesday 22nd September experienced a 4 percentage point drop in daily traffic levels when compared to the previous week, while the rest of the week showed for the most part little change compared to the previous 2 weeks (Figure 1).
- Figure 4a shows continued overall decline in AM peak traffic flows over the past 3 weeks, most likely due to the increased implementation of local lockdowns (see Birmingham, Figure 8).
- Figure 4b shows that September continues to record the highest weekly weekday AM peak traffic flow levels since lockdown. The largest decreases have been observed between the peaks, where traffic flows have fallen below August levels. Figure 4c shows that weekly weekend traffic flows continue to show a greater level of reduction compared to August and July.
- Analysis of vehicle classification data (Figure 5) shows that, while motorcycle volumes for weekdays remain fairly stable, weekend volumes continue to decline when compared with the summer months during lockdown (but remain significantly above baseline levels). This is likely due to the deteriorating weather and the end of the holiday period, while car volumes are back to baseline levels. HGV / LGV volumes and bus / coach volumes are still exceeding the baseline.
- Figures 8 and 9 compare hourly weekday traffic flows per week for the urban areas of Birmingham and York, demonstrating how different urban areas are showing different traffic behaviours at a local level. In this case, Birmingham AM peak traffic volumes remaining below baseline levels and reducing, while York AM Peak traffic is consistent and increased on baseline levels.

Cycling

- Cycling flows for the week commencing 21st September are significantly reduced compared to the previous week, down approximately 45 percentage points (Figure 2). This is expected to be due to poor weather as the seasons change.
- The change in cycling was more pronounced on Saturday and Sunday, with weekday cycling flow reductions less dramatic. Wednesday and Thursday saw the largest declines, dropping to -2.5% and -0.5% below baseline levels respectively.
- Hourly cycling volumes show that for the week commencing 21st September, AM peak cycling volumes remain high when compared with early lockdown but are declining. Interpeak and PM peak levels dropped to either a slight increase or equal to baseline levels.

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Figure 1 – Key Traffic Flow Dashboard Measures

Overall Daily Traffic Flow Change Compared to Baseline (01-07 Feb 2020)								
Week	1. Monday	2. Tuesday	3. Wednesday	4. Thursday	5. Friday	6. Saturday	7. Sunday	Total
21/09/2020	📉 -10.15%	📉 -12.82%	📉 -7.07%	📉 -8.94%	📉 -7.86%	📉 -6.74%	📉 -5.49%	-8.23%
14/09/2020	📉 -11.78%	📉 -8.94%	📉 -8.52%	📉 -8.27%	📉 -7.43%	📉 -5.24%	📉 -3.00%	-7.82%
07/09/2020	📉 -12.38%	📉 -7.86%	📉 -11.84%	📉 -15.62%	📉 -8.77%	📉 -7.68%	📉 -2.01%	-8.85%
31/08/2020	📉 -30.78%	📉 -11.67%	📉 -13.42%	📉 -16.41%	📉 -13.43%	📉 -8.79%	📉 -9.46%	-14.78%
24/08/2020	📉 -11.85%	📉 -12.03%	📉 -10.86%	📉 -13.44%	📉 -12.57%	📉 -10.13%	📉 -5.42%	-11.28%
17/08/2020	📉 -10.70%	📉 -10.33%	📉 -14.60%	📉 -9.21%	📉 -13.20%	📉 -11.13%	📉 -5.88%	-10.80%
10/08/2020	📉 -11.37%	📉 -11.39%	📉 -11.42%	📉 -14.52%	📉 -14.46%	📉 -13.09%	📉 -13.54%	-12.54%
Total	-22.90%	-19.60%	-19.70%	-21.98%	-20.94%	-20.84%	-20.87%	-20.98%

Figure 1: Key dashboard figures showing change in average daily traffic volumes compared to the baseline (first week of February 2020)

Figure 2 – Key Cycling Dashboard Measures

Overall Daily Cycling Change Compared to Baseline (01-07 Feb 2020)											
Week	1. Monday	2. Tuesday	3. Wednesday	4. Thursday	5. Friday	6. Saturday	7. Sunday	Total			
21/09/2020	📈 68.69%	📈 66.56%	📉 -2.64%	📉 -0.58%	📈 16.84%	📈 65.96%	📈 82.16%	29.97%			
14/09/2020	📈 76.58%	📈 52.02%	📈 64.96%	📈 62.48%	📈 50.63%	📈 100.00%	📈 137.50%	74.06%			
07/09/2020	📈 46.23%	📈 57.37%	📈 40.86%	📈 47.05%	📈 39.25%	📈 96.97%	📈 151.72%	55.41%			
31/08/2020	📈 26.52%	📈 34.15%	📈 8.45%	📈 3.10%	📈 31.38%	📈 100.00%	📈 122.02%	31.70%			
24/08/2020	📈 48.32%	📉 -36.81%	📉 -10.87%	📉 -20.51%	📉 -20.72%	📈 48.87%	📈 100.83%	8.00%			
17/08/2020	📈 49.37%	📈 35.48%	📉 -41.46%	📈 55.09%	📉 -20.00%	📈 73.41%	📈 118.39%	33.33%			
10/08/2020	📈 57.14%	📈 65.38%	📈 42.41%	📈 29.41%	📈 28.68%	📈 58.03%	📈 75.97%	54.36%			
Total	25.00%	23.52%	4.97%	14.29%	17.05%	66.49%	95.36%	29.85%			

Figure 2: Key dashboard figures showing change in average daily cycle volumes compared to the baseline (first week of February 2020)

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Figure 3 – Daily average traffic flow change from baseline

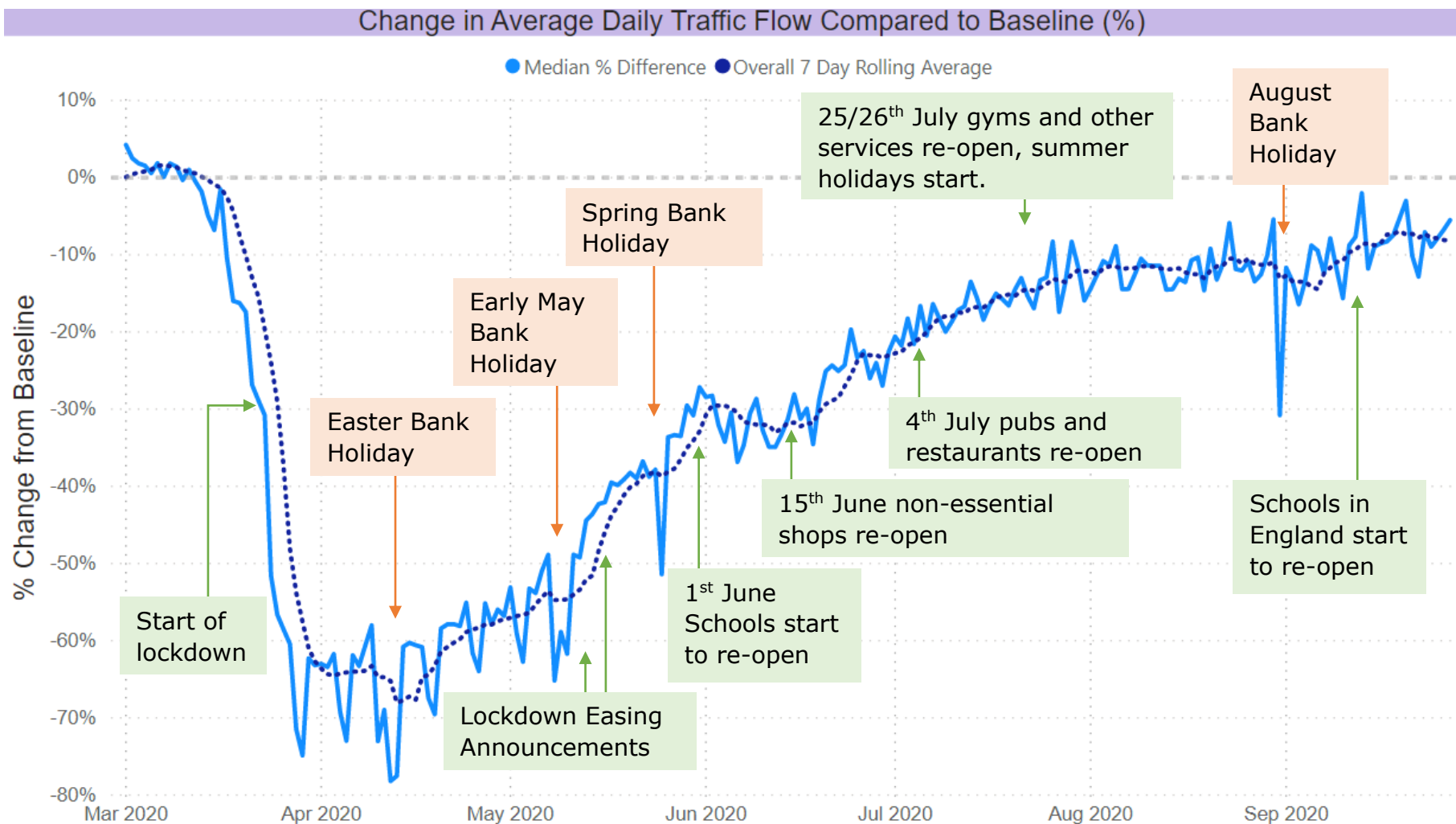


Figure 3: Change in average daily traffic volumes since 01st March across all sources compared to the baseline (first week of February 2020)

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Figure 4a – Comparison of hourly weekday traffic

Average Hourly Traffic Flow Per Week

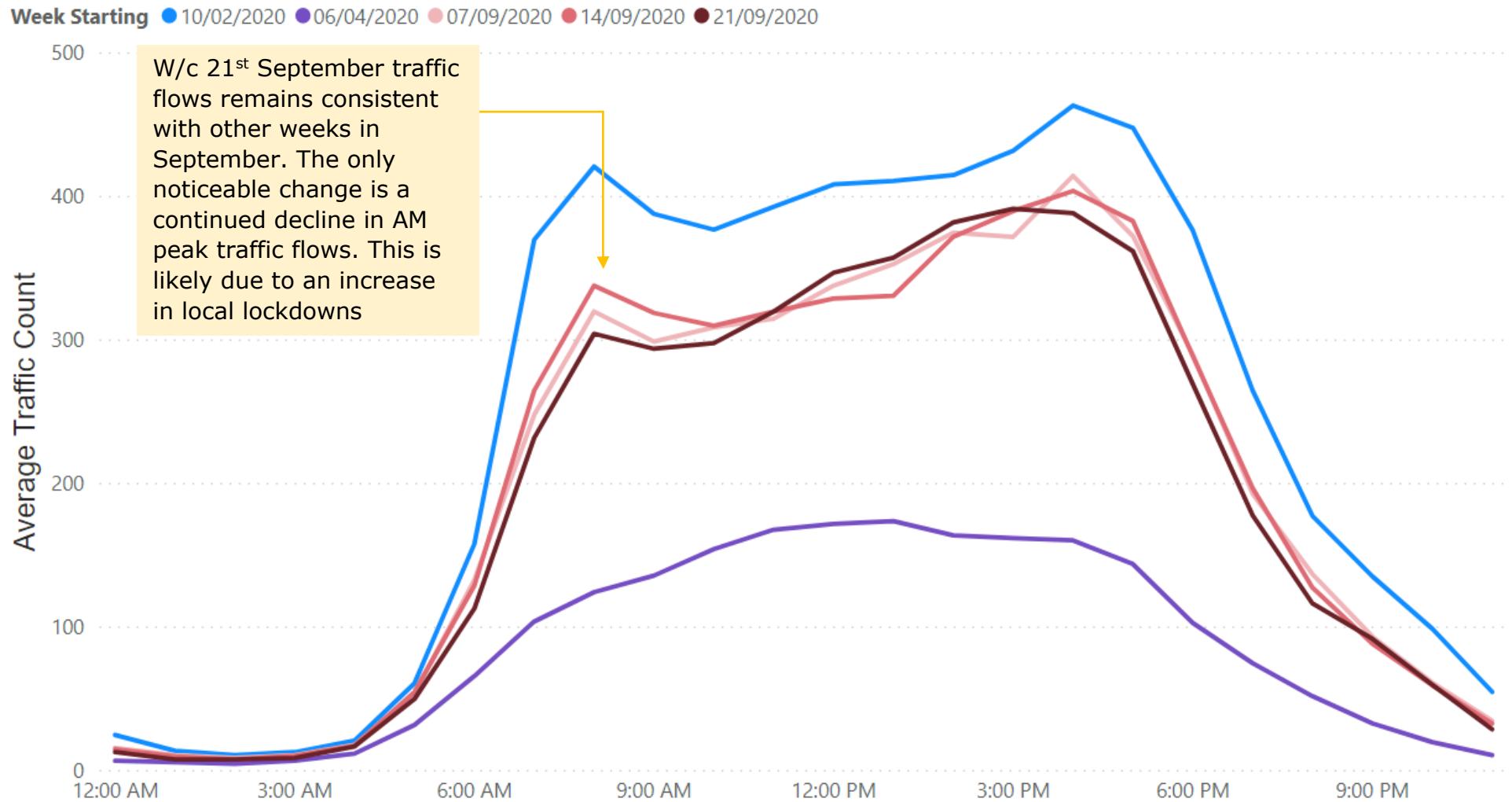


Figure 4a: Weekday traffic volumes comparing pre-lockdown (10/02/20) with early lockdown (06/04/20), the latest week (21/09/20) and the previous weeks (07/09/20 & 14/09/20) across all datasets.

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Figure 4b – Hourly traffic flow comparison per week across all weekdays

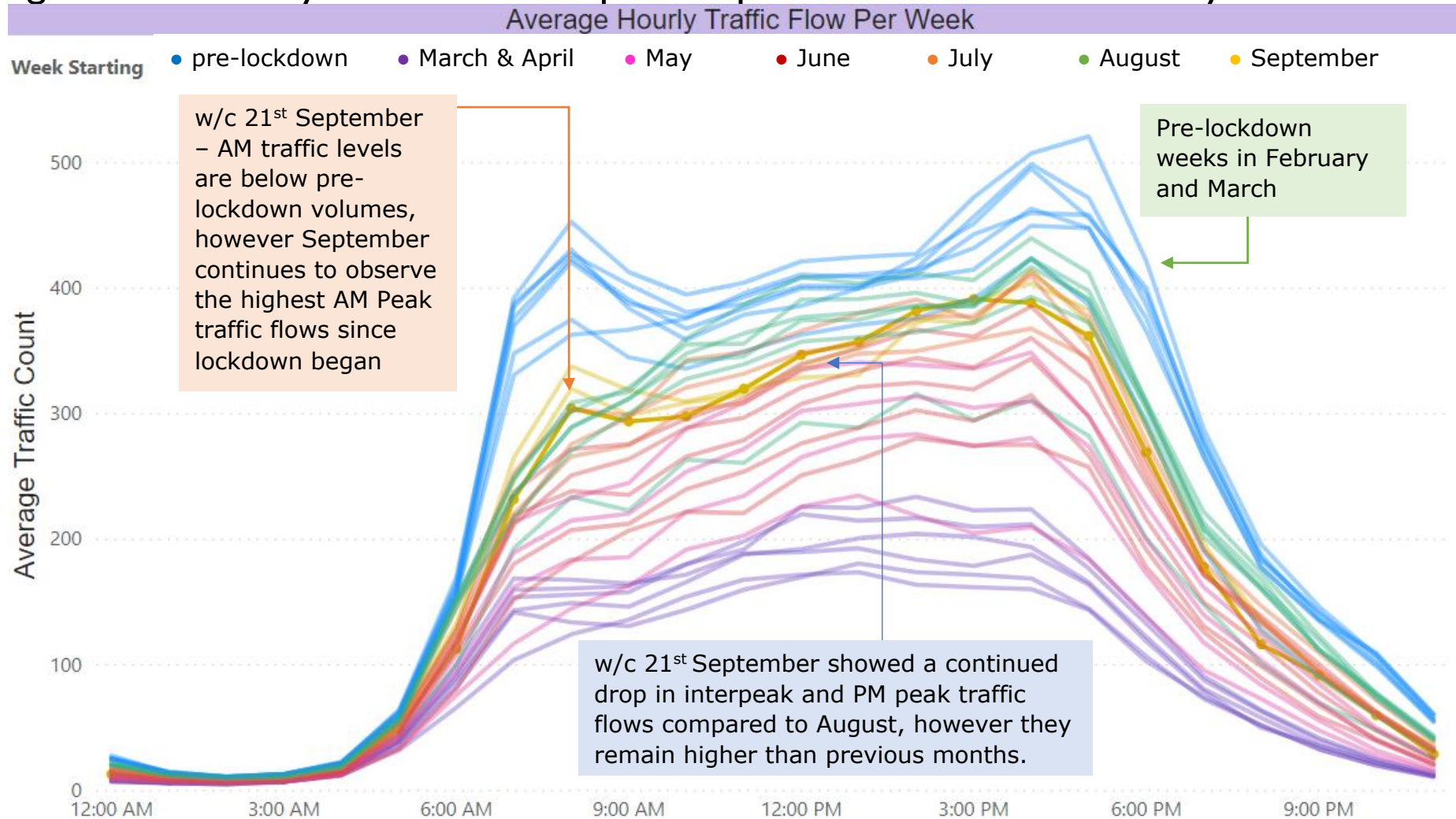


Figure 4b: Change in average weekday hourly traffic volumes per week since 1st full week in February across all sources with latest week highlighted.

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Figure 4c – Hourly traffic flow comparison per week across all weekends

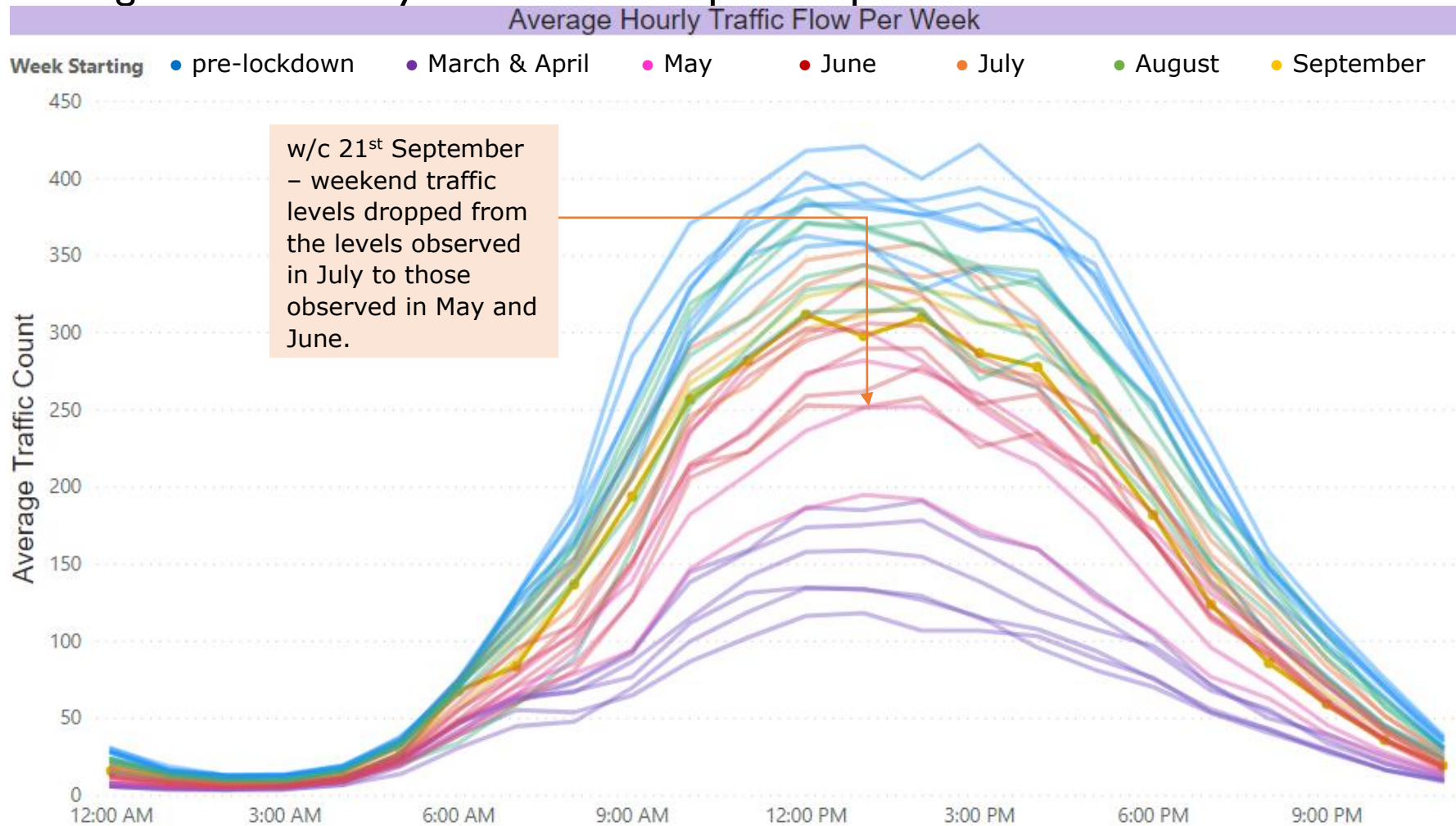


Figure 5c: Change in average weekend hourly traffic volumes per week since 1st full week in February across all sources with latest week highlighted.

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Figure 5 – Change in journeys by vehicle class

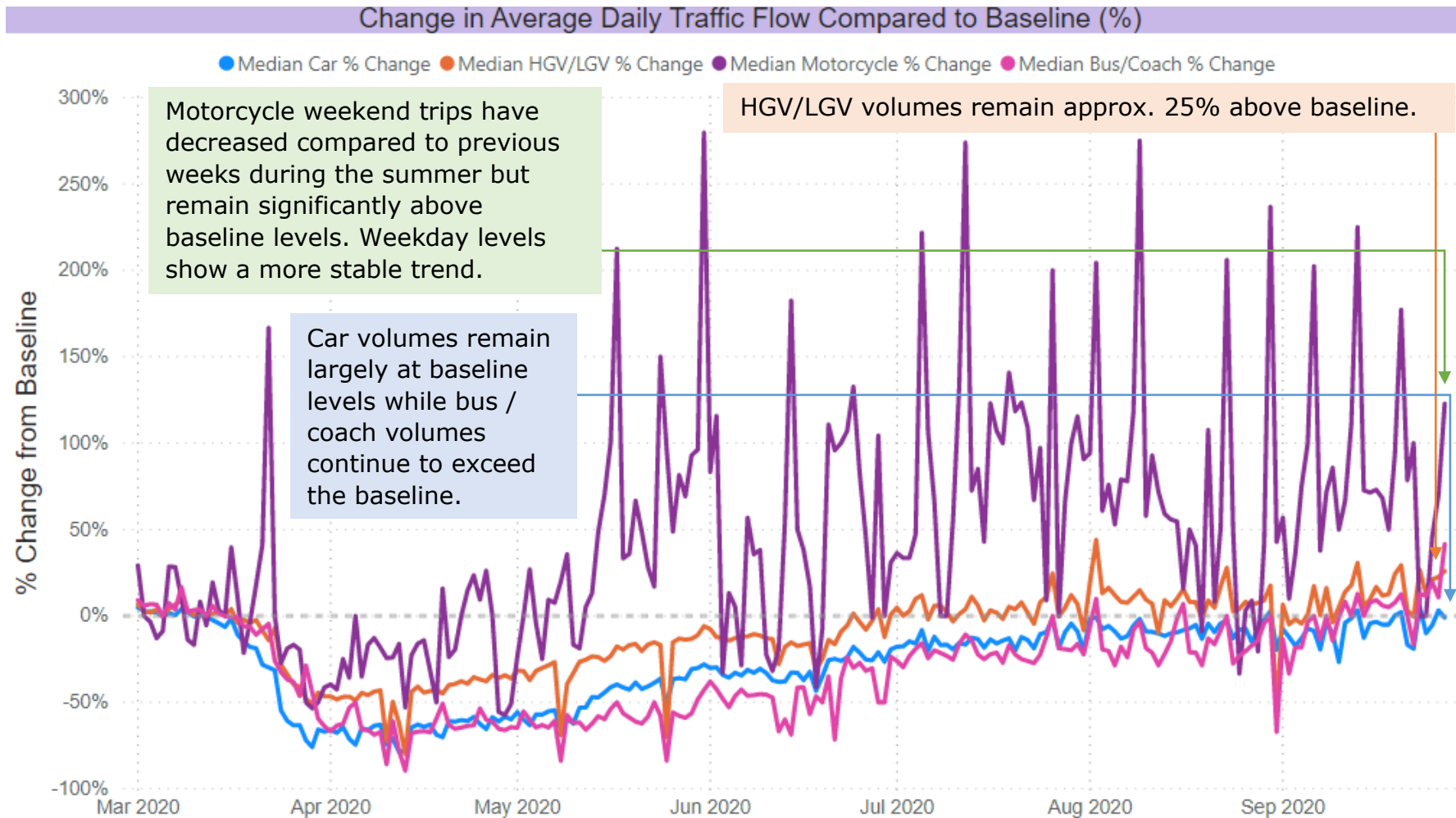


Figure 5: Change in average vehicle trips by vehicles class where available in the source dataset (note this data is measured at sensor level so sources with large numbers of sensors will have a greater contribution to the average count)

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Figure 6 – Daily average cycling change from baseline

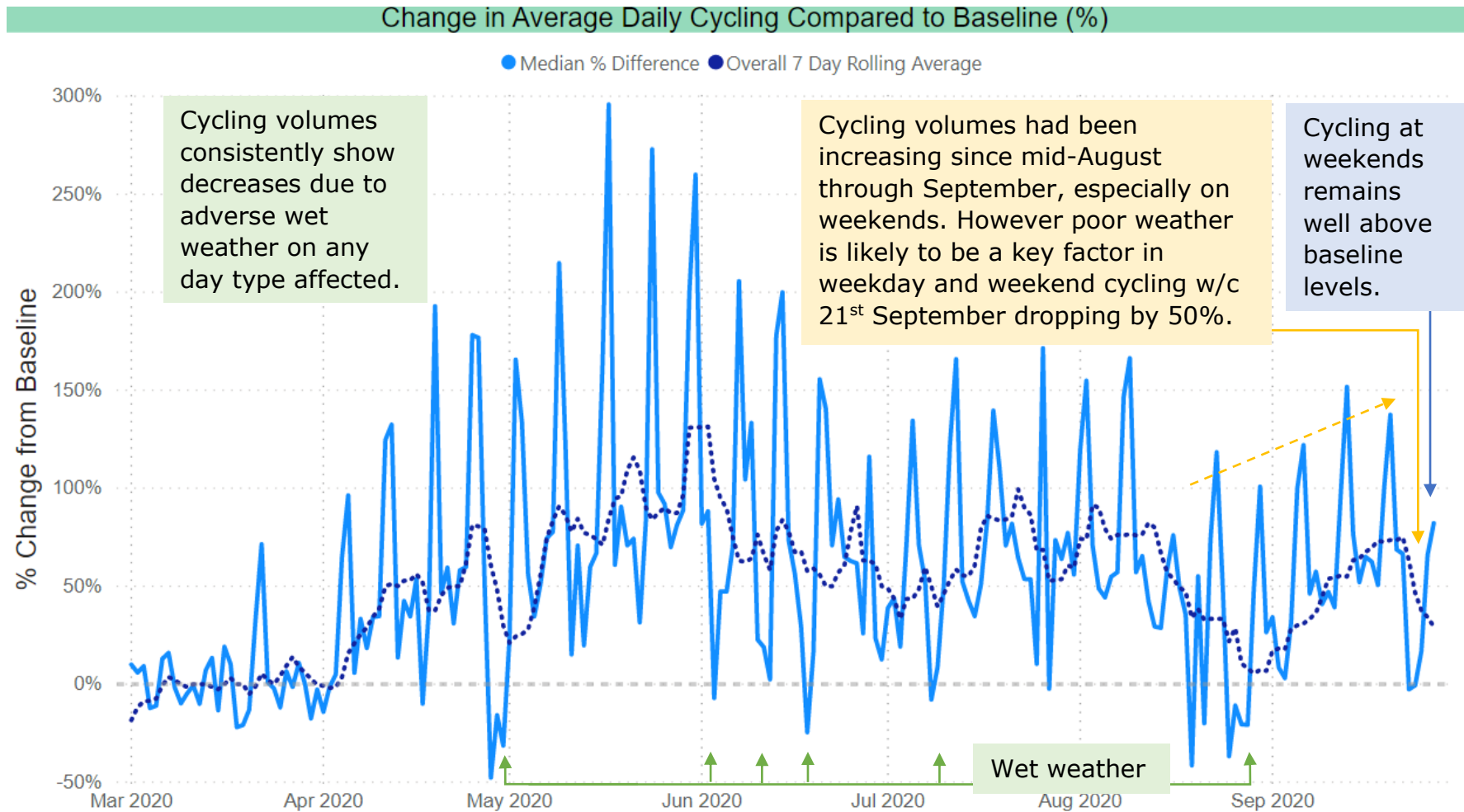


Figure 6: Change in average daily cycling volumes since 01st March (start of lockdown) across all sources compared to the baseline (first week of February 2020)

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Figure 7a – Hourly cycling comparison per weekday

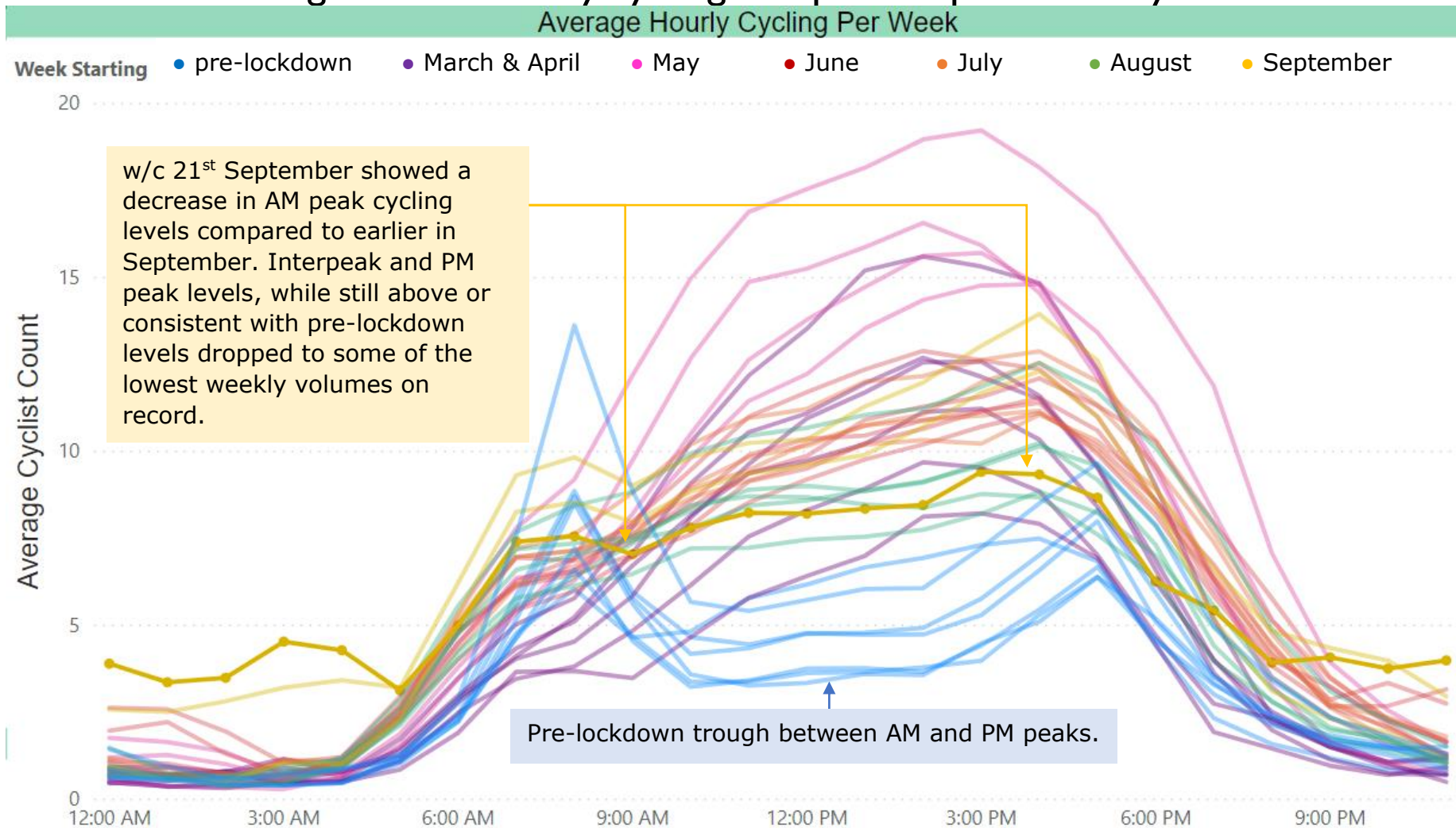


Figure 7a: Change in average weekday (mean) hourly cycling volumes per week since 1st full week of February across all sources

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Figure 7b – Hourly cycling comparison per weekend

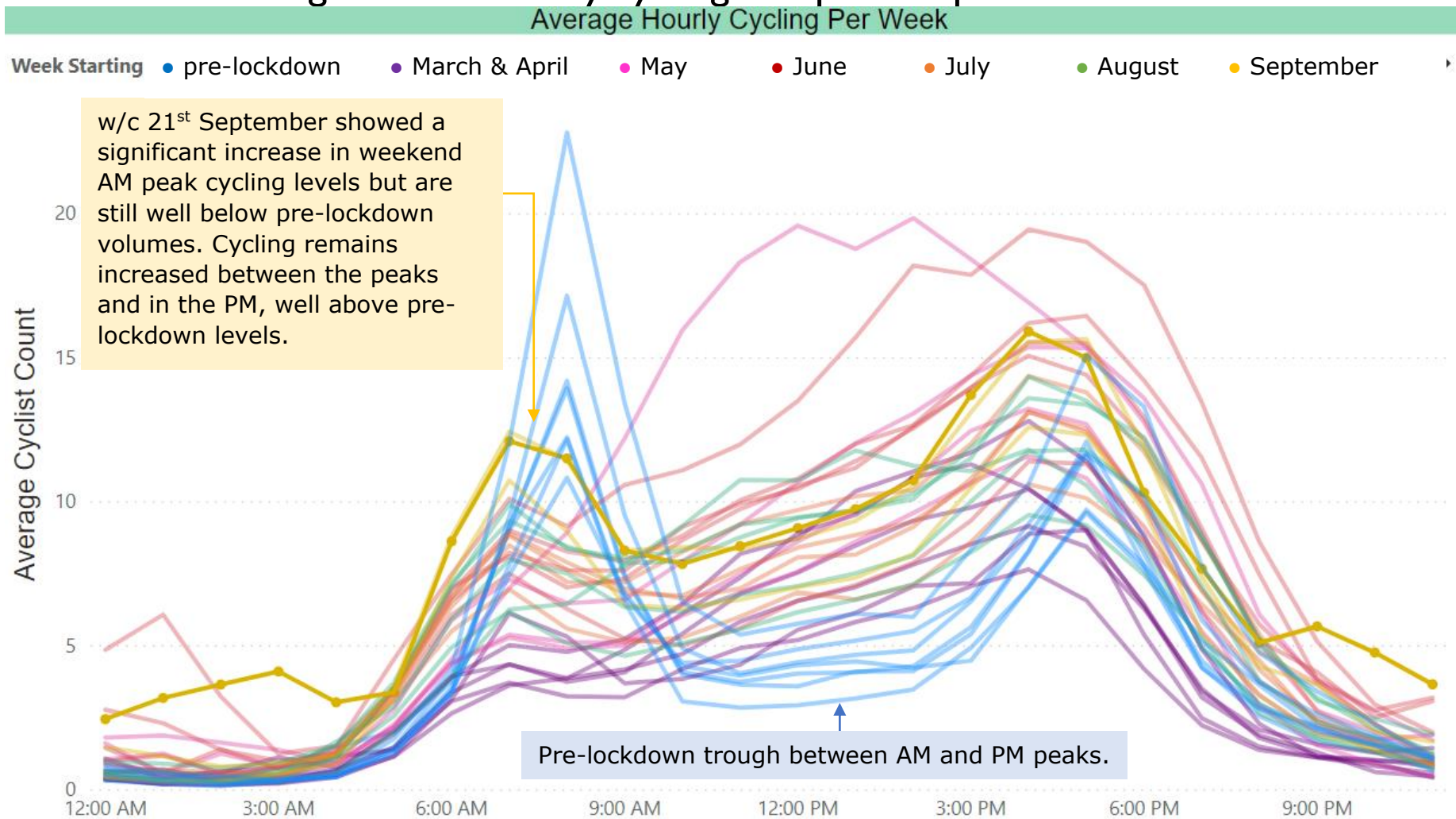


Figure 7b: Change in average weekend (mean) hourly cycling volumes per week since 1st full week of February across all sources

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Figure 8 – Comparison of hourly weekday traffic City of Birmingham

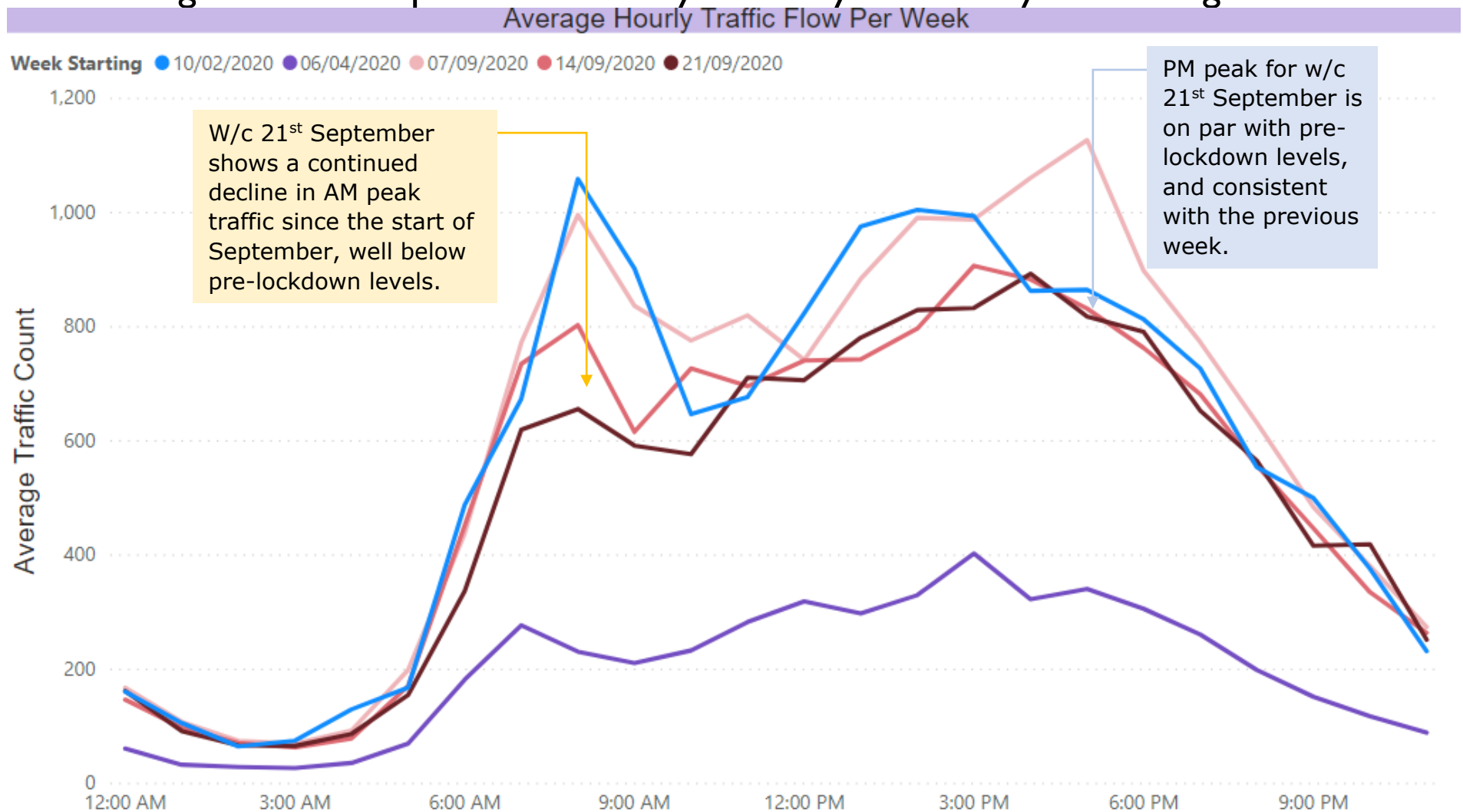


Figure 8: Weekday traffic volumes comparing pre-lockdown (10/02/20) with early lockdown (06/04/20), the latest week (21/09/20) and the previous week (07/09/20 & 14/09/20) for the City of Birmingham. This data has been provided by Birmingham City Council.

Figure 9 – Comparison of hourly weekday traffic City of York

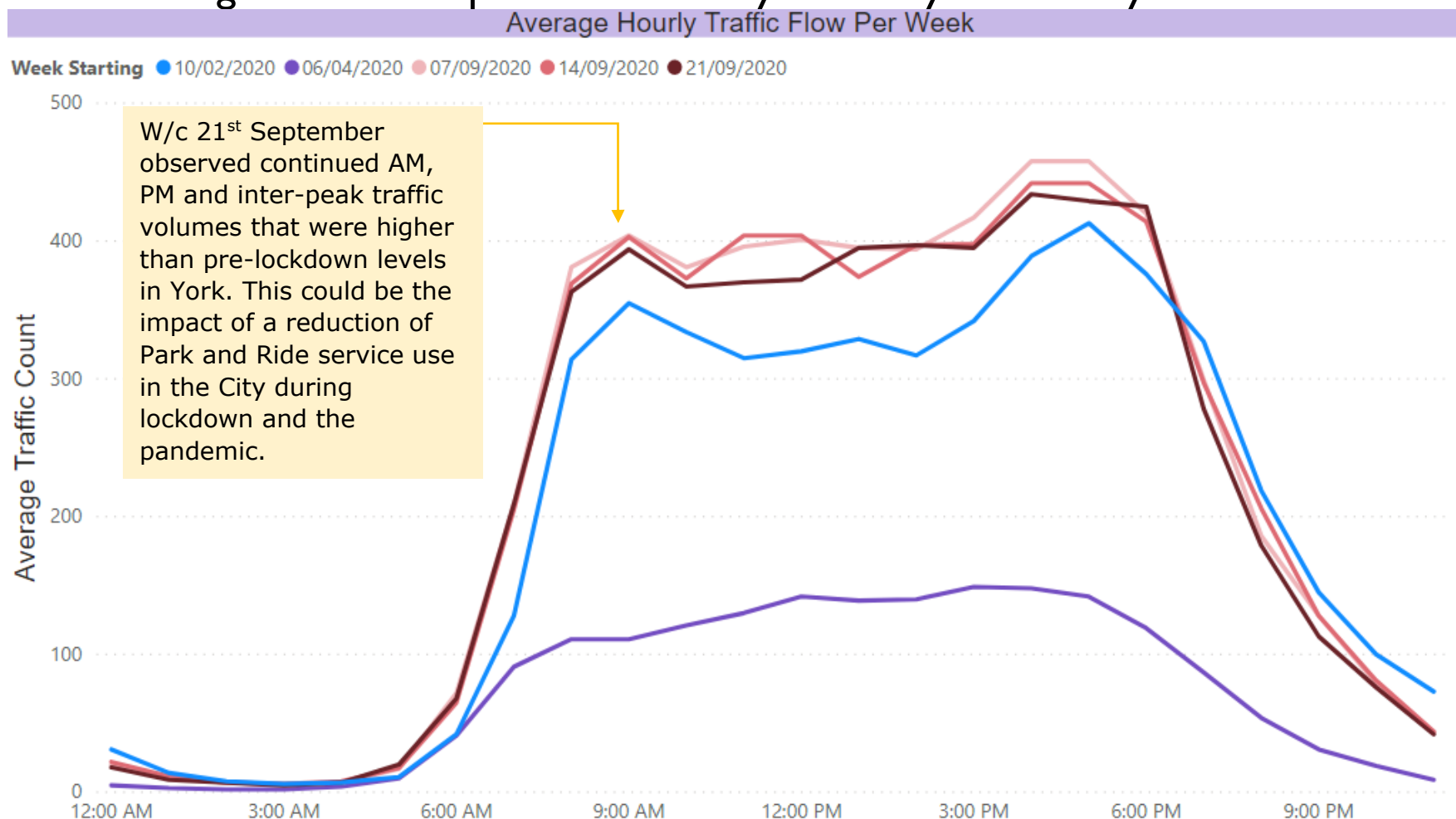


Figure 9: Weekday traffic volumes comparing pre-lockdown (10/02/20) with early lockdown (06/04/20), the latest week (21/09/20) and the previous week (07/09/20 & 14/09/20) for the City of York. This data has been provided by City of York Council.

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 Authority District 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 (with the exception of Figure 7 which is a mean average)

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.

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Covid-19 Timeline

FEBRUARY 2020	
04/02/2020	China Advice - All UK citizens advised to leave China
MARCH 2020	
10/03/2020	Italy Air Travel - Majority of flights to and from Italy suspended
12/03/2020	7-day Isolation - 7-day self-isolation for individuals presenting symptoms
16/03/2020	Social Distancing - Households to self-isolate for 14-days if symptoms present. Work from home where possible. Avoid pubs, clubs, theatres etc. 12-week isolation for elderly and vulnerable (commencing end of week)
17/03/2020	UK Foreign Travel 1 - Foreign Secretary advises against all non-essential travel overseas
21/03/2020	Schools Closed - Schools to remain closed until further notice (exception for key workers)
23/03/2020	UK Lockdown - Guidance provided for essential travel only. All non-essential businesses required to close. Public events banned
23/03/2020	UK Foreign Travel 2 - Foreign Secretary advises all British travellers to return to the UK
28/03/2020	PM's Letter - Prime Minister issues guidance letter to all UK households
APRIL 2020	
16/04/2020	NPCC Guidance - NPCC issues guidance clarifying reasonable excuses for leaving home
MAY 2020	
10/05/2020	Those who cannot work from home are encouraged to return to work. Avoid public transport where possible and instead walk or cycle.
11/05/2020	Relaxation Document - The UK government publishes a 50-page document setting out further details of the phases for lifting the lockdown restrictions.
13/05/2020	Individuals can undertake unlimited exercise (and can travel to do so). Individuals can meet someone from another household providing it is on a one-to-one basis. All garden centres are allowed to open. House moves and viewings are now permitted.
18/05/2020	Rail Operators - Rail operators begin running more train services.
JUNE 2020	
01/06/2020	Schools re-open for some pupils. Groups of up to six people from different households allowed to meet outside
15/06/2020	All non-essential retailers and zoos in England reopened
19/06/2020	UK's COVID-19 Alert Level is lowered from Level 4 (severe risk, high transmission) to Level 3 (substantial risk, general circulation)
JULY 2020	
04/07/2020	Further relaxation of social distancing and reopening of pubs, restaurants, hotels and hairdressers on 4 th July
25/07/2020	Gyms and other indoor services reopen in England

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AUGUST 2020	
21/08/2020	Driving tests are approved to go ahead
SEPTEMBER 2020	
01/09/2020	Large number of schools across England re-open for the autumn term.
08/09/2020	All schools across England have re-opened
14/09/2020	Rule of six comes into effect to tackle coronavirus, where any social gatherings of more than six people will be against the law

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.

This report provides regularly updated intelligence and findings from the Transport Technology Forum Covid-19 Local Authority Travel Data 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, and local authority responses to the Covid-19 crisis.