



# agilysis



POST-PANDEMIC ROAD  
SAFETY: HOW CAN WE  
UNDERSTAND WHAT'S  
CHANGED ON OUR ROADS

RICHARD OWEN

- ❑ Changing road use

- ❑ Behaviour

- ❑ Current evidence on road casualties



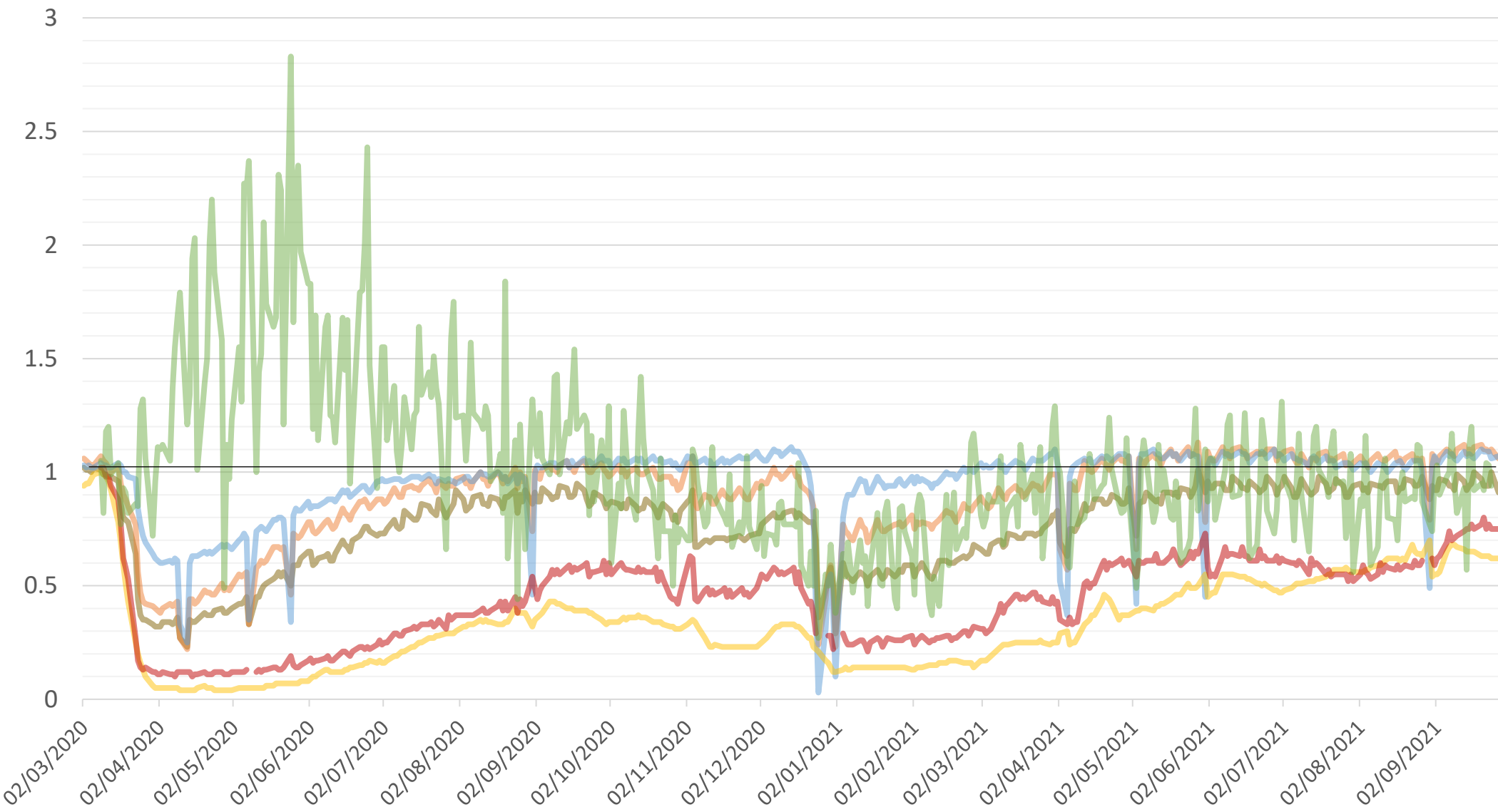
# CHANGING ROAD USE





# GB Transport Use, Weekdays

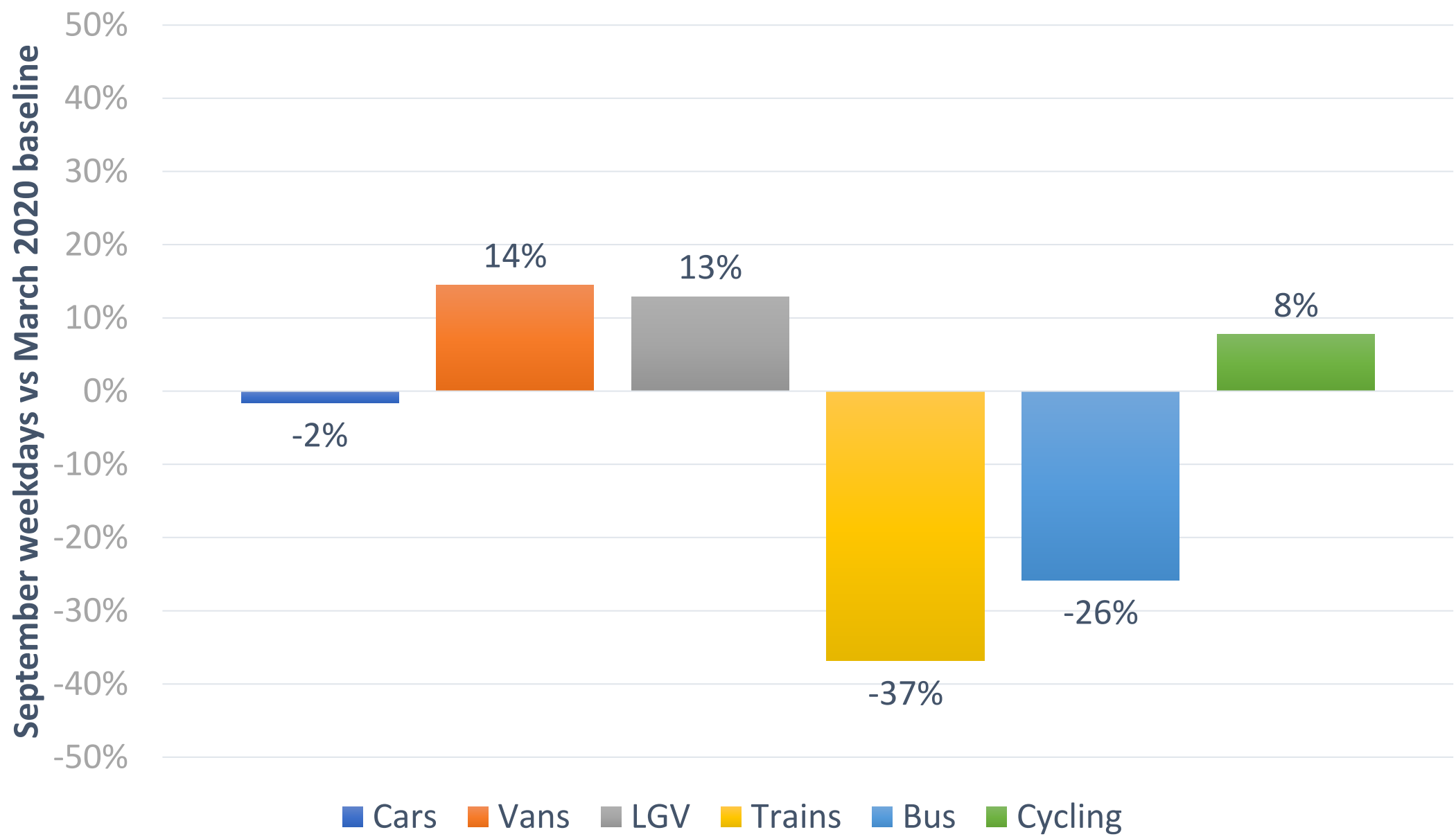
Cars Vans LGV Trains Bus Cycling



Source: <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>



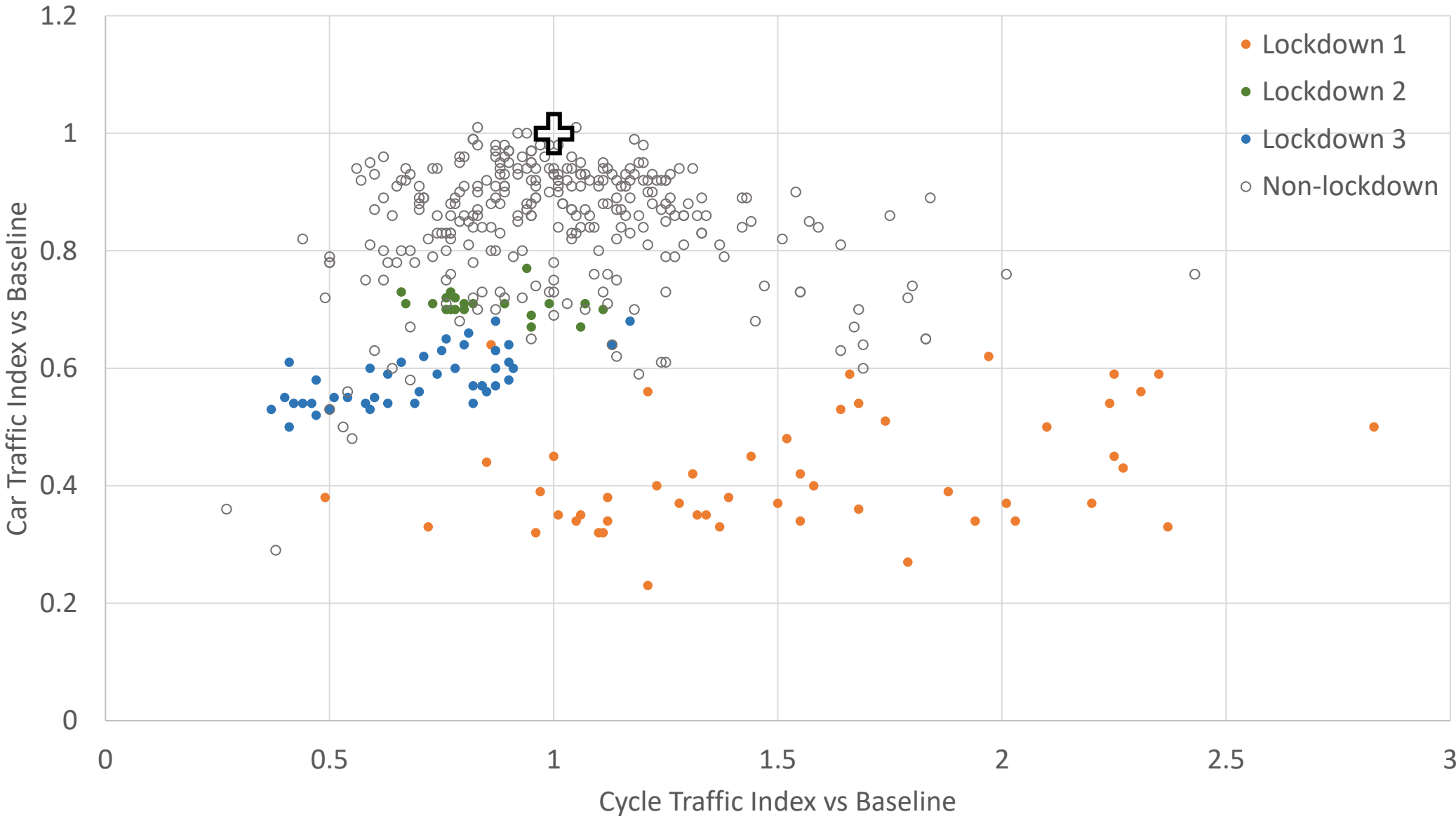
# Traffic Levels – September 2021



Source: <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>



# Changing Road Use – Lockdown Periods, Cycling and Cars



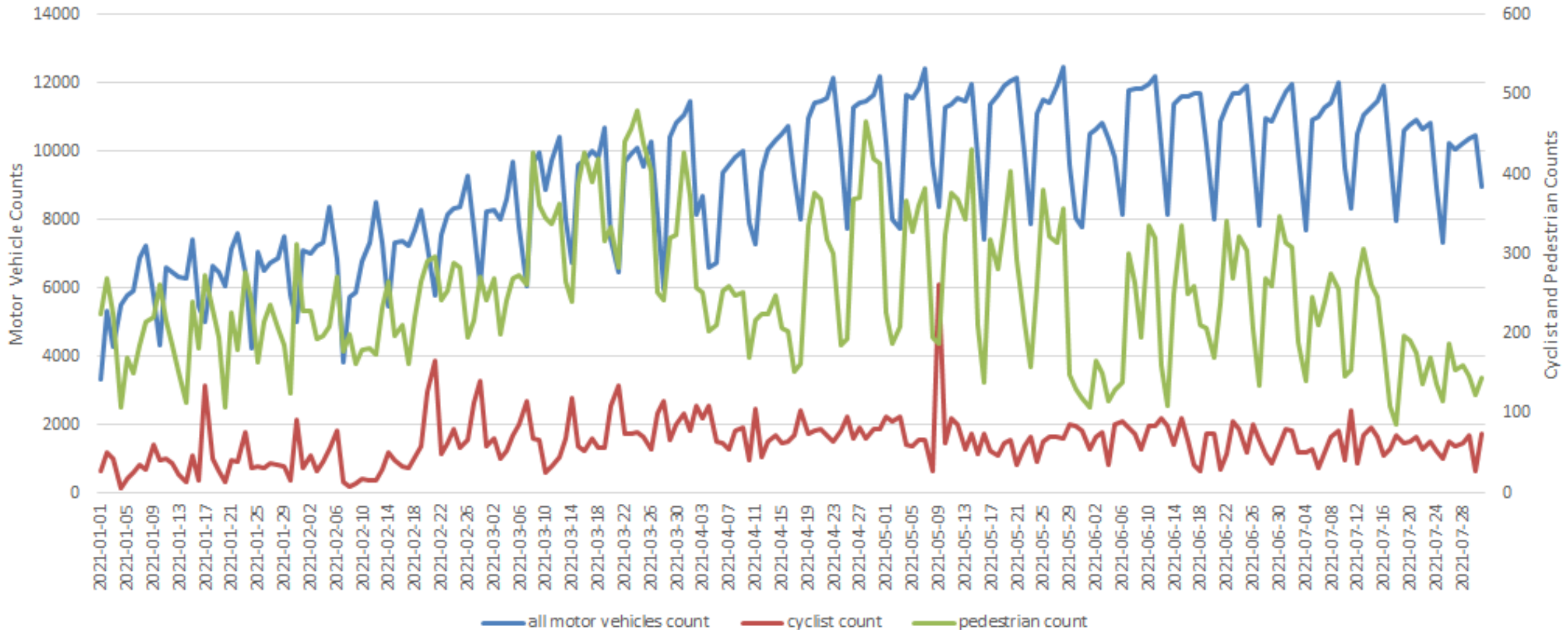
Source: <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>



# CHANGING ROAD USE

- Are the patterns seen in Lockdown 1 relevant?
  - Dramatically lower traffic
  - More free time
  - Better weather
  - Novelty
- Did Lockdown 1 just represent less total movement and not a modal shift?
- Has road use changed significantly at all or are we back to pre-pandemic?
- We need more data...

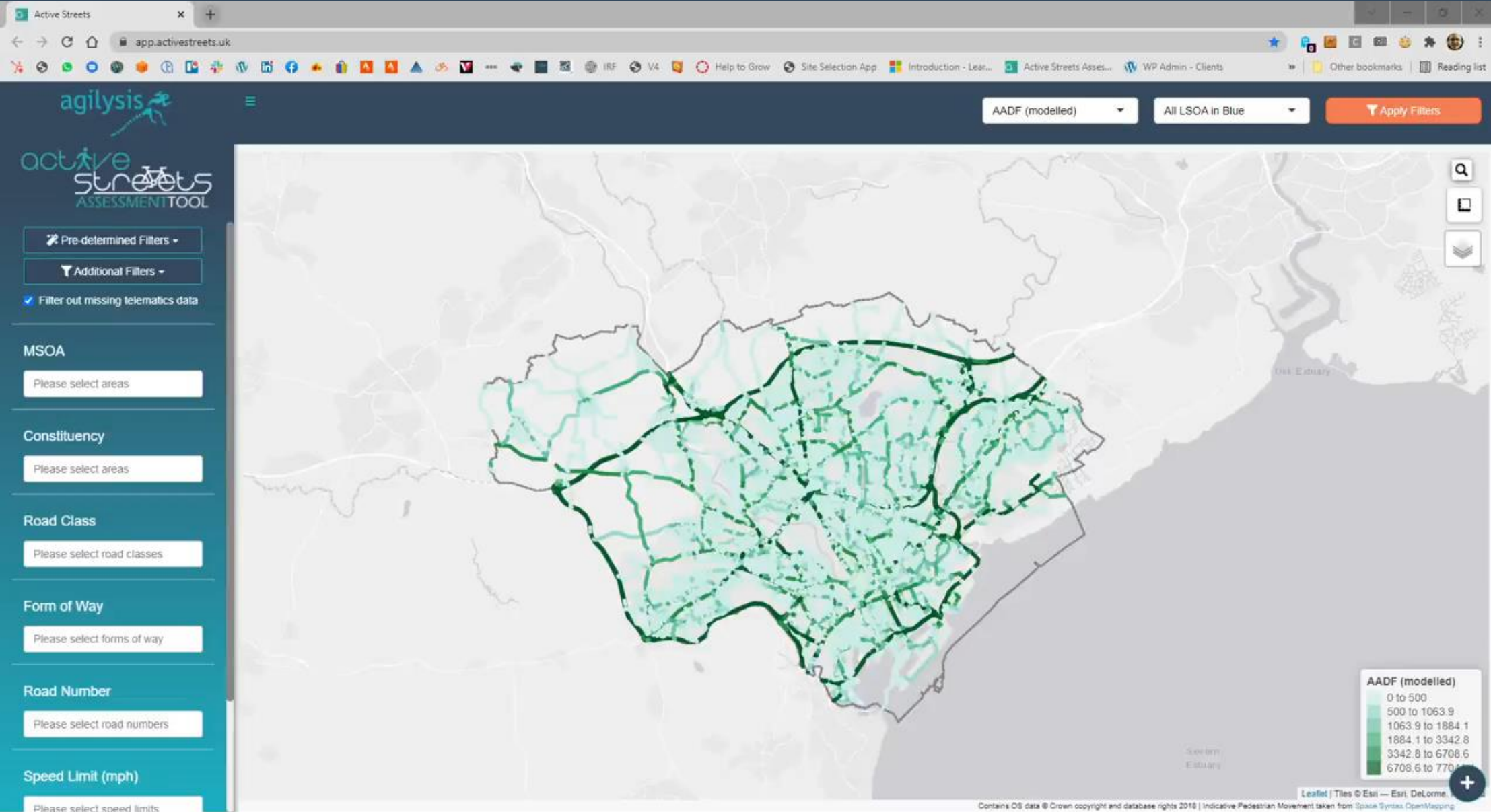
# CHANGING ROAD USE



Source: Sample Vivacity AI traffic count output



# CHANGING ROAD USE



<https://activestreeets.uk>



Photo 215380505 / Delivery Van © Antoniodiaz | Dreamstime.com



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# CHANGING ROAD USE

- Can we reliably measure change at a national level?
- Does local data and evidence provide a better indication of potential success?
- Does less traffic always mean safer roads?

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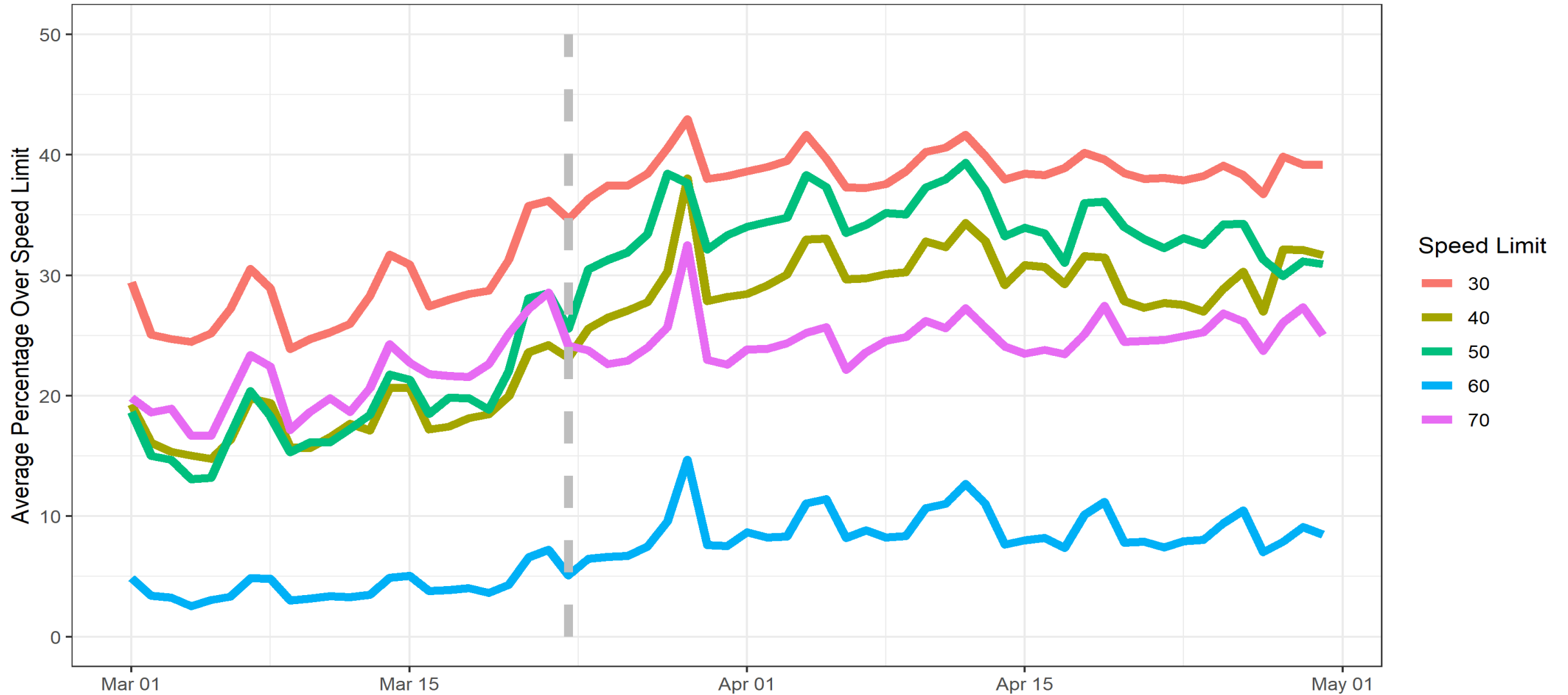
# BEHAVIOUR

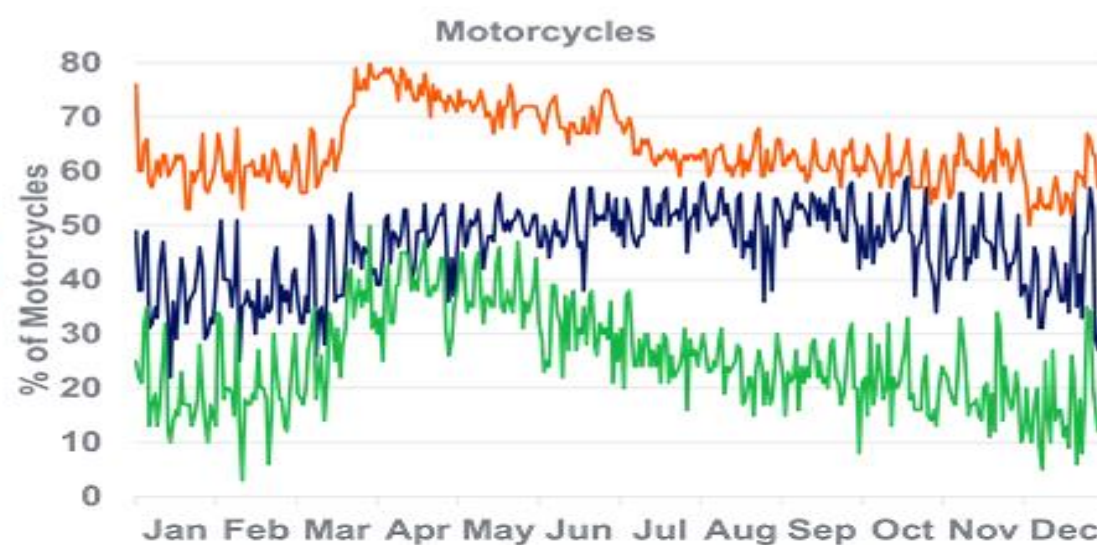
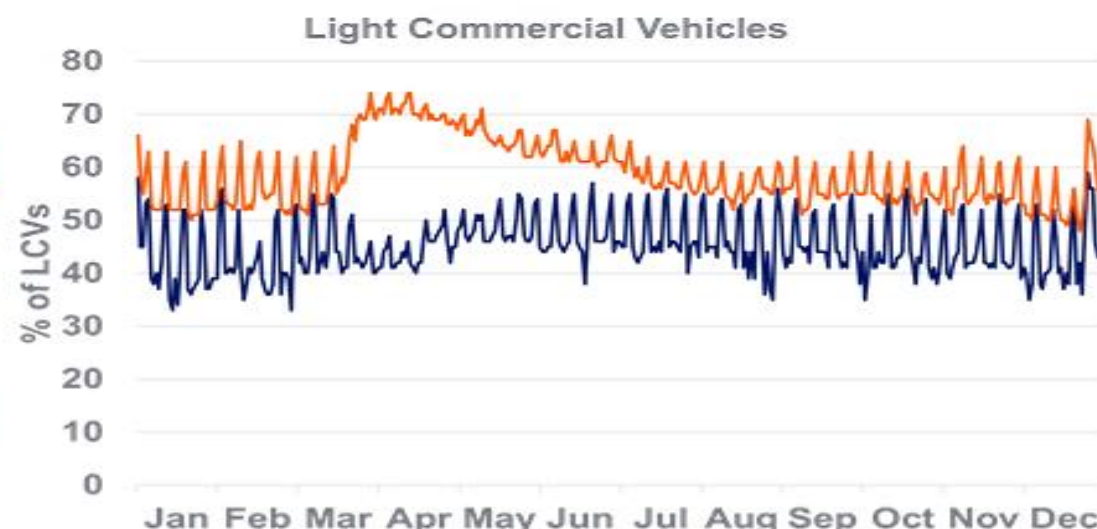
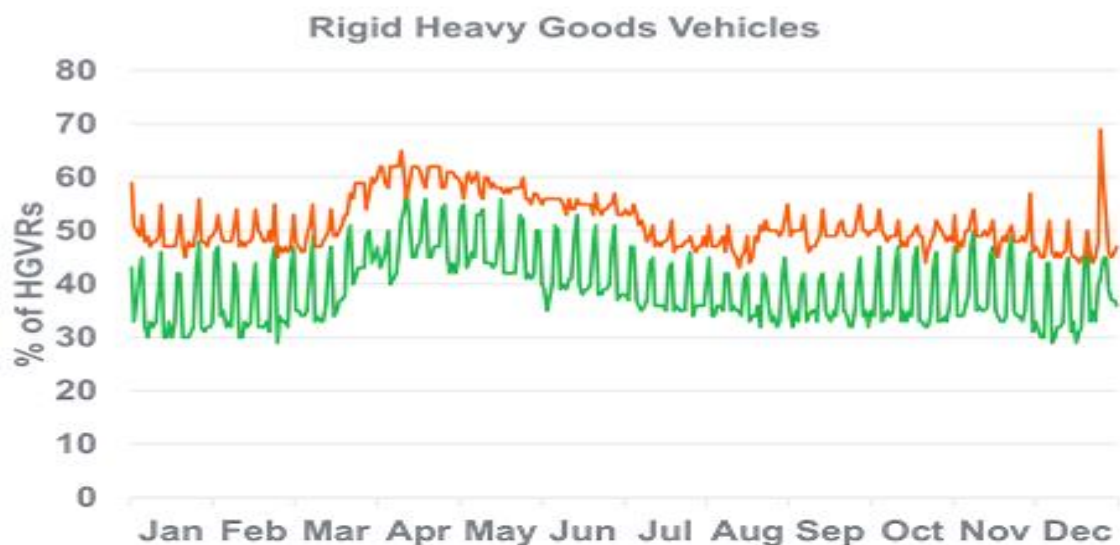
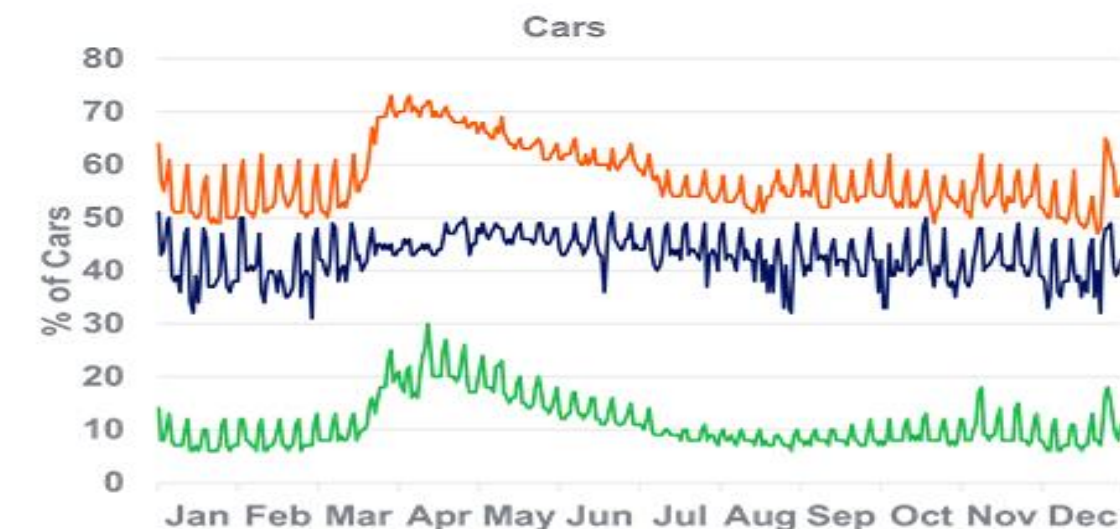


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# BEHAVIOUR - SPEED



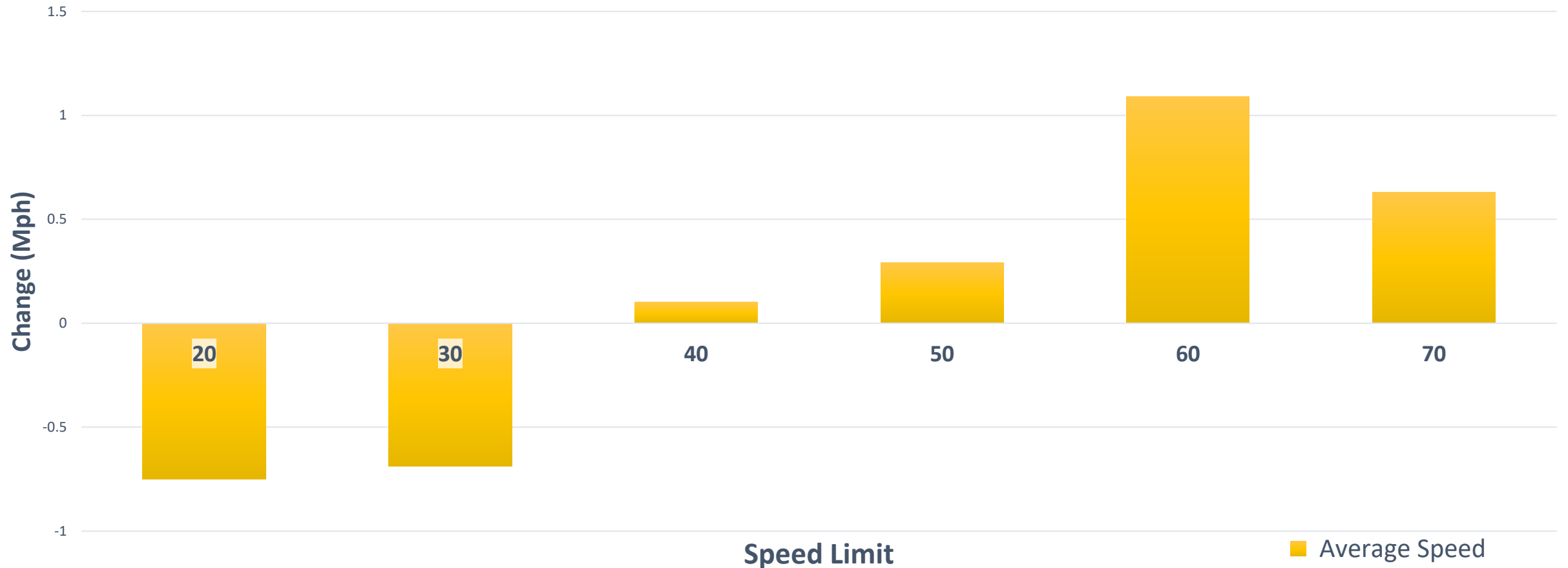


— Motorways — National Speed Limit Single Carriageways — 30mph Roads

Average Speed (Cars, mph)	2020	2019
(a) Motorways (28 sites)	70	69
(b) National speed limit single carriageways (20 sites <sup>2</sup> )	51	50
(c) 30 mph speed limit roads (21 sites)	31	31
(d) 20 mph speed limit roads <sup>3</sup> (10 sites)	26	26

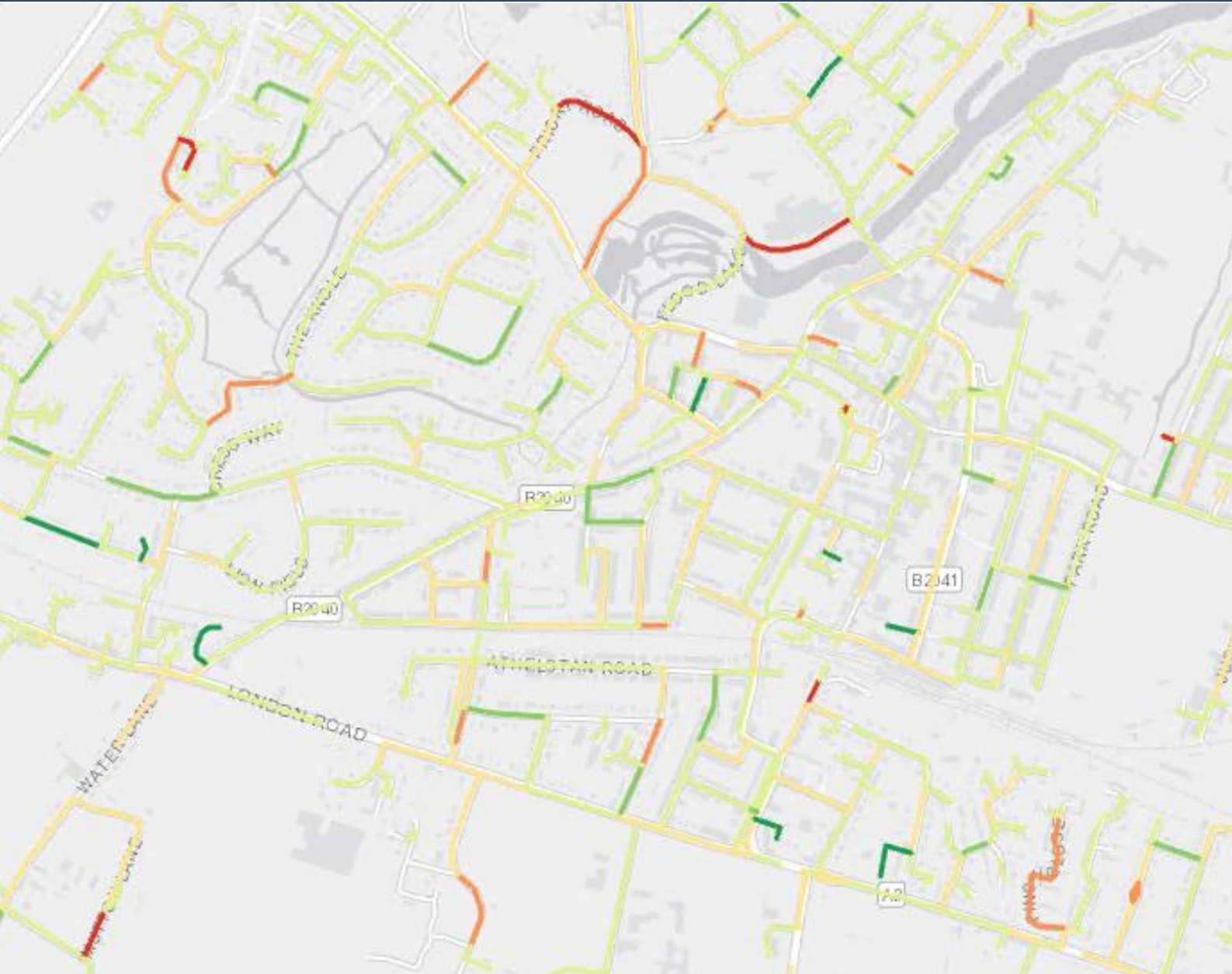
## TM Speed Analysis

April '19 – Mar '20 vs April '20 – Mar '21



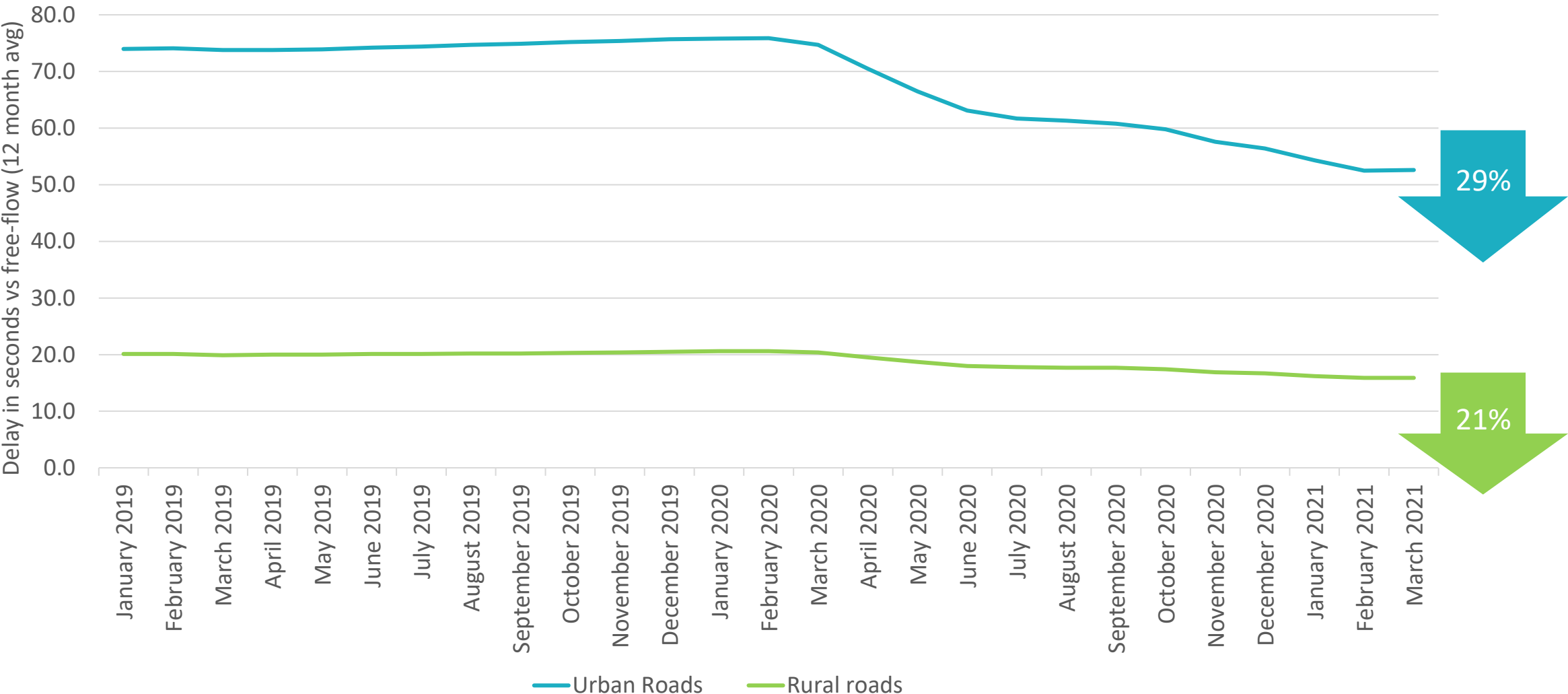


# BEHAVIOUR

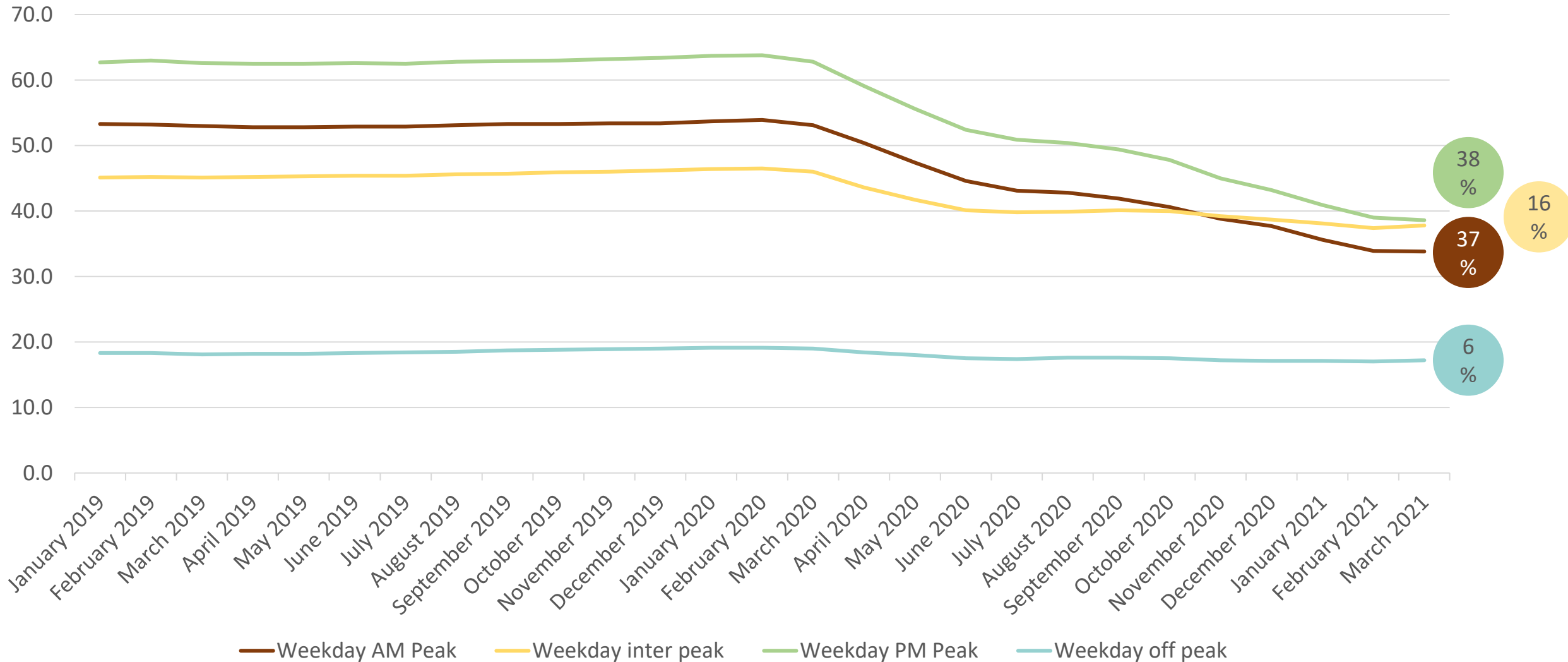


Source: Sample average speed data for local roads April '19 – Mar '20 vs April '20 – Mar '21

12 month rolling average delay compared to free flow on local 'A' roads in England



12 month rolling average delay compared to free flow on local 'A' roads in England





# BEHAVIOUR

- Speeds have slightly reduced in urban areas
- But speeds have increased on inter-urban and strategic roads
- Traffic profile is changing
  
- Are people making changes in speed choice, or making the most of an opportunity?
- Are observed changes influencing mode choice?
- Does less congestion provide opportunities for changing our streets?



# ROAD CASUALTIES



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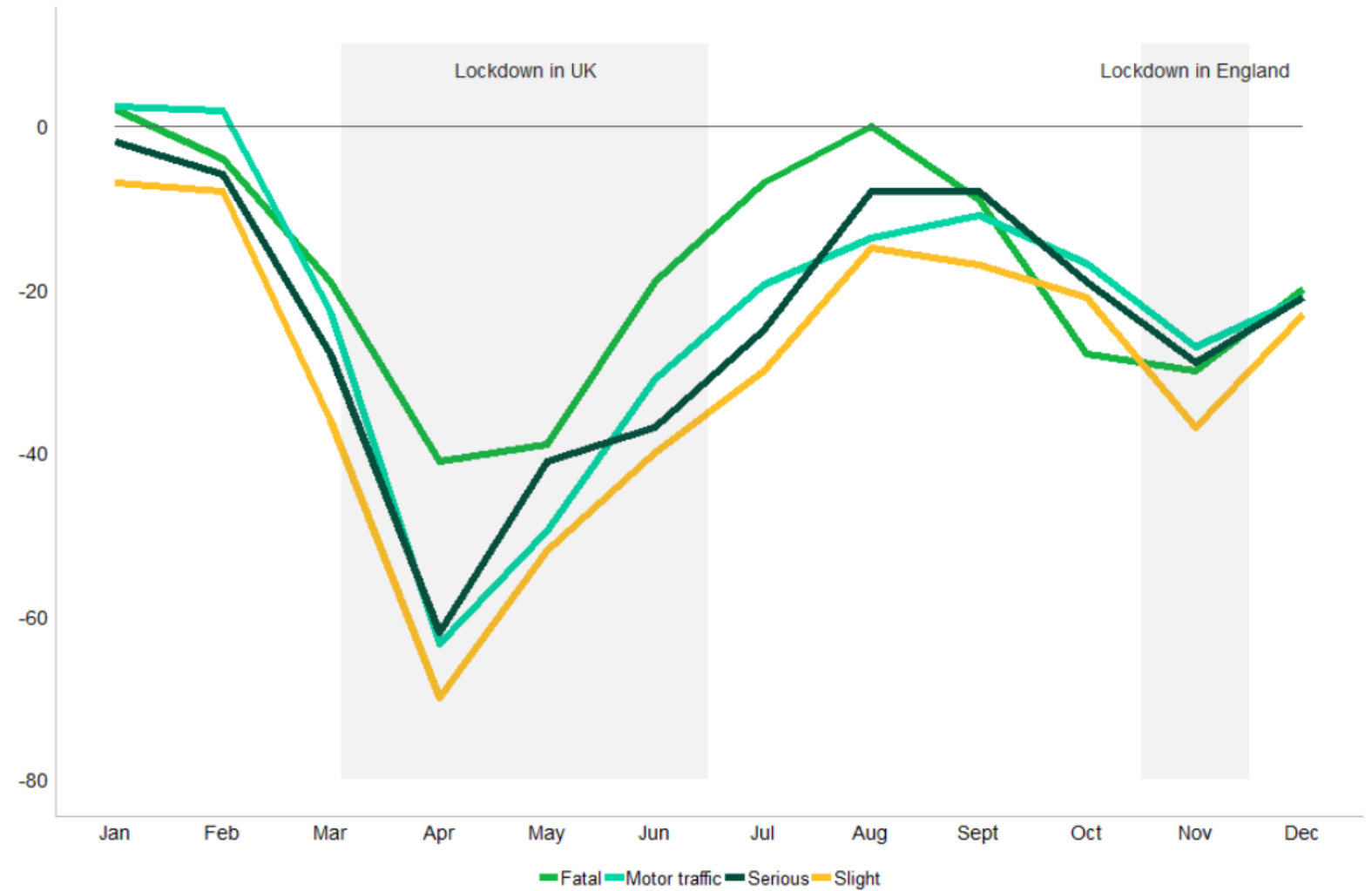
# ROAD CASUALTIES

- 2020 data recently published
- Record-level data only recently received by our team
- Charts shown here all taken from DfT Recorded Road Casualties 2020 report
- <https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2020/reported-road-casualties-great-britain-annual-report-2020>



# ROAD CASUALTIES

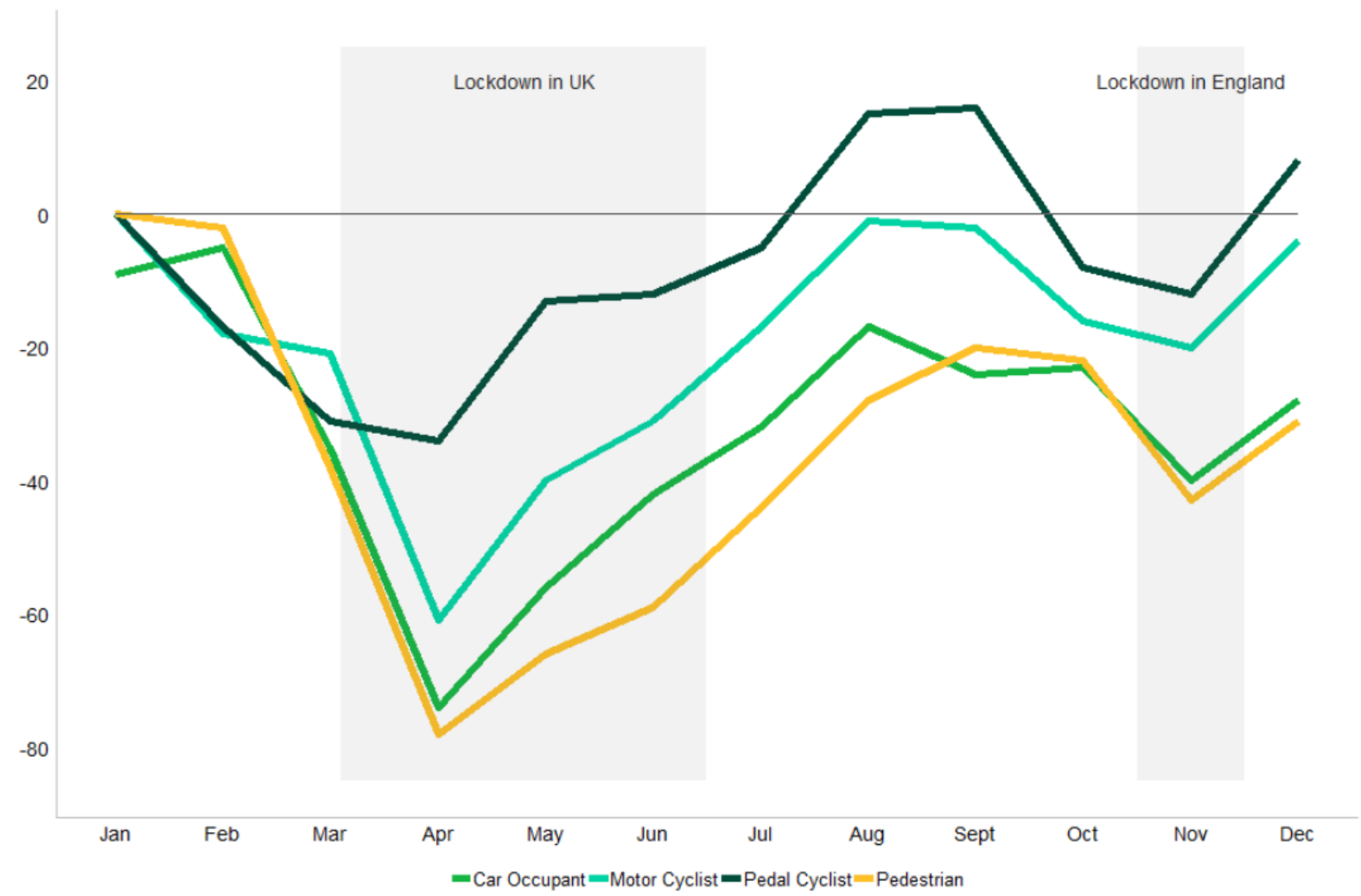
**Chart 3: Percentage change of casualties and motor traffic, compared to the 3-year average for 2017 to 2019, by severity, Great Britain, 2020**





# ROAD CASUALTIES

Chart 4: Percentage change of casualties compared to 3-year average for 2017 to 2019 by month and road user type: Great Britain, 2020

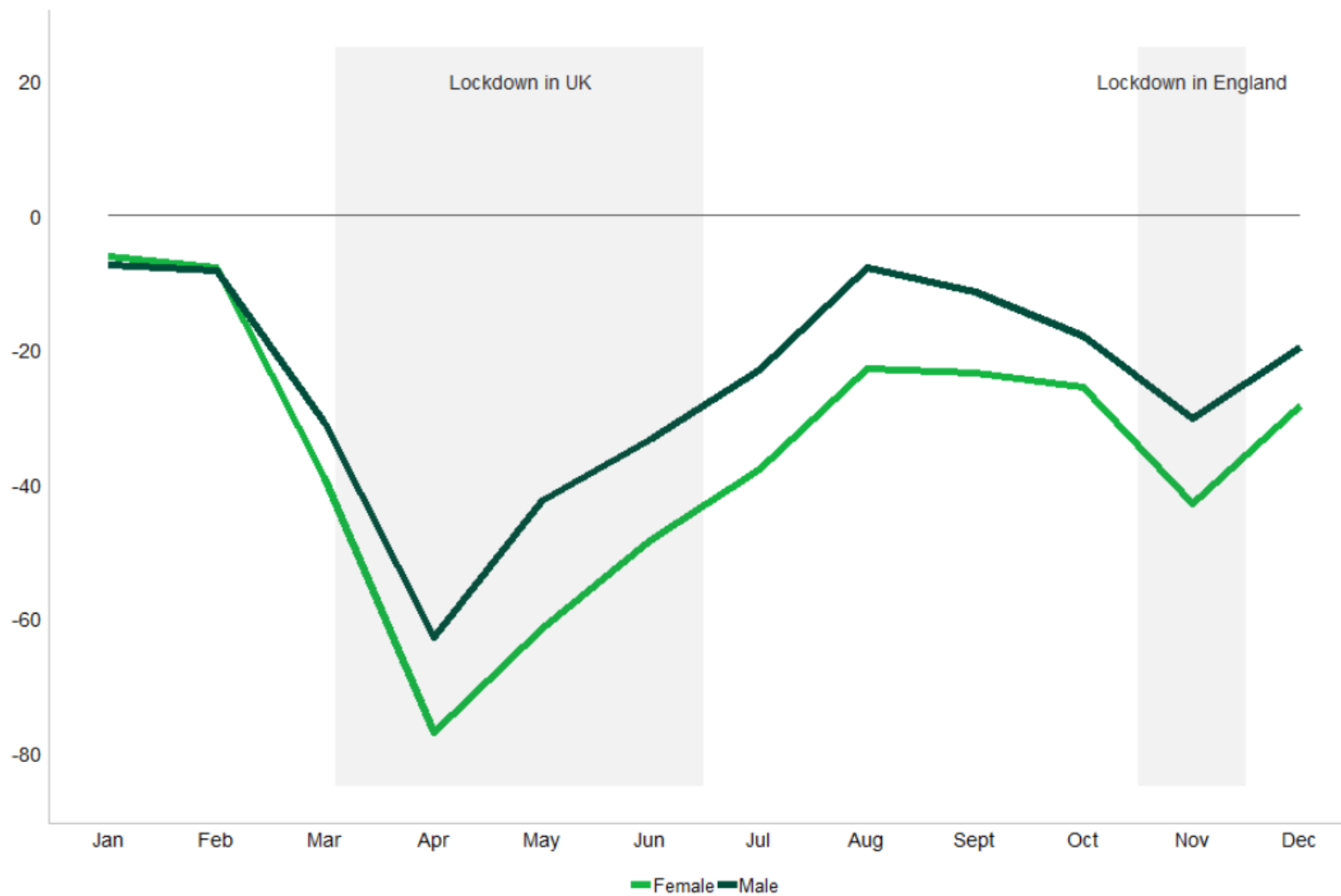






# ROAD CASUALTIES

**Chart 8: Percentage change of casualties compared to the 3-year average for 2017 to 2019 by month and sex: Great Britain, 2020**





# ROAD CASUALTIES

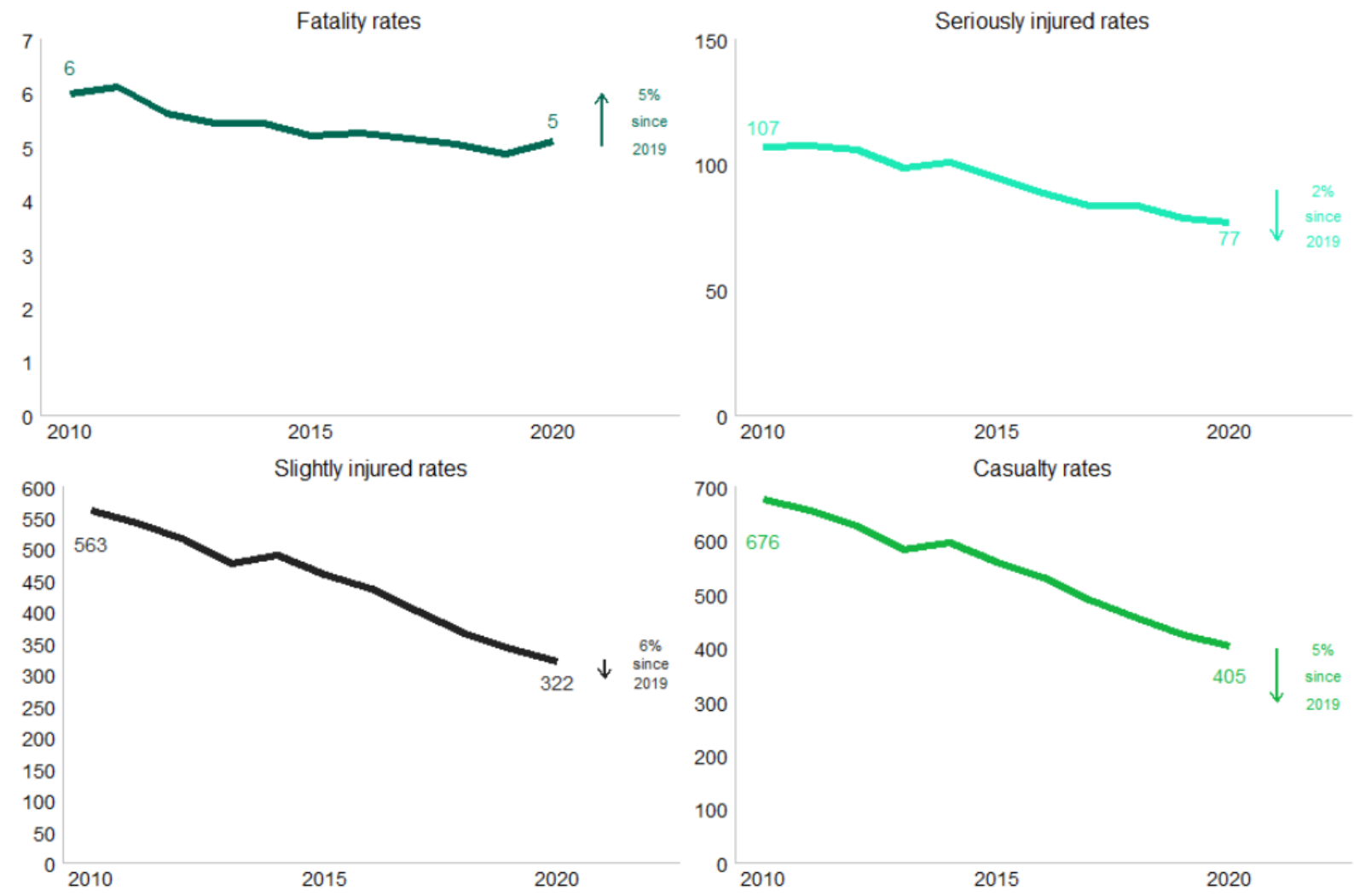
Chart 9: Percentage change of casualties compared to 3-year average for 2017 to 2019 by month and age group: Great Britain, 2020 [RAS30024](#)





# ROAD CASUALTIES

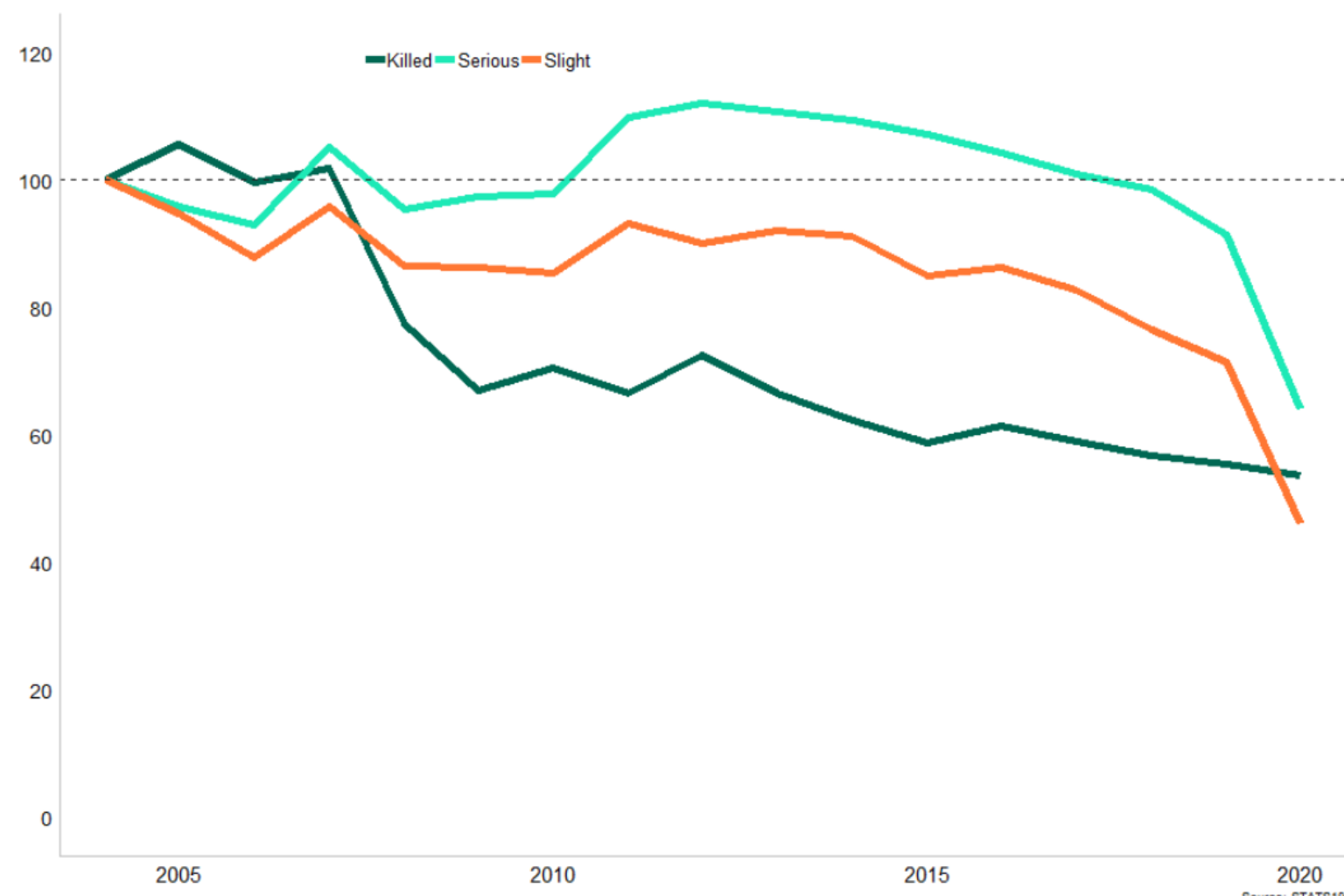
**Chart 3: Casualty rates per billion vehicle miles by severity in Great Britain 2010 to 2020** ([RAS30001](#))





# ROAD CASUALTIES

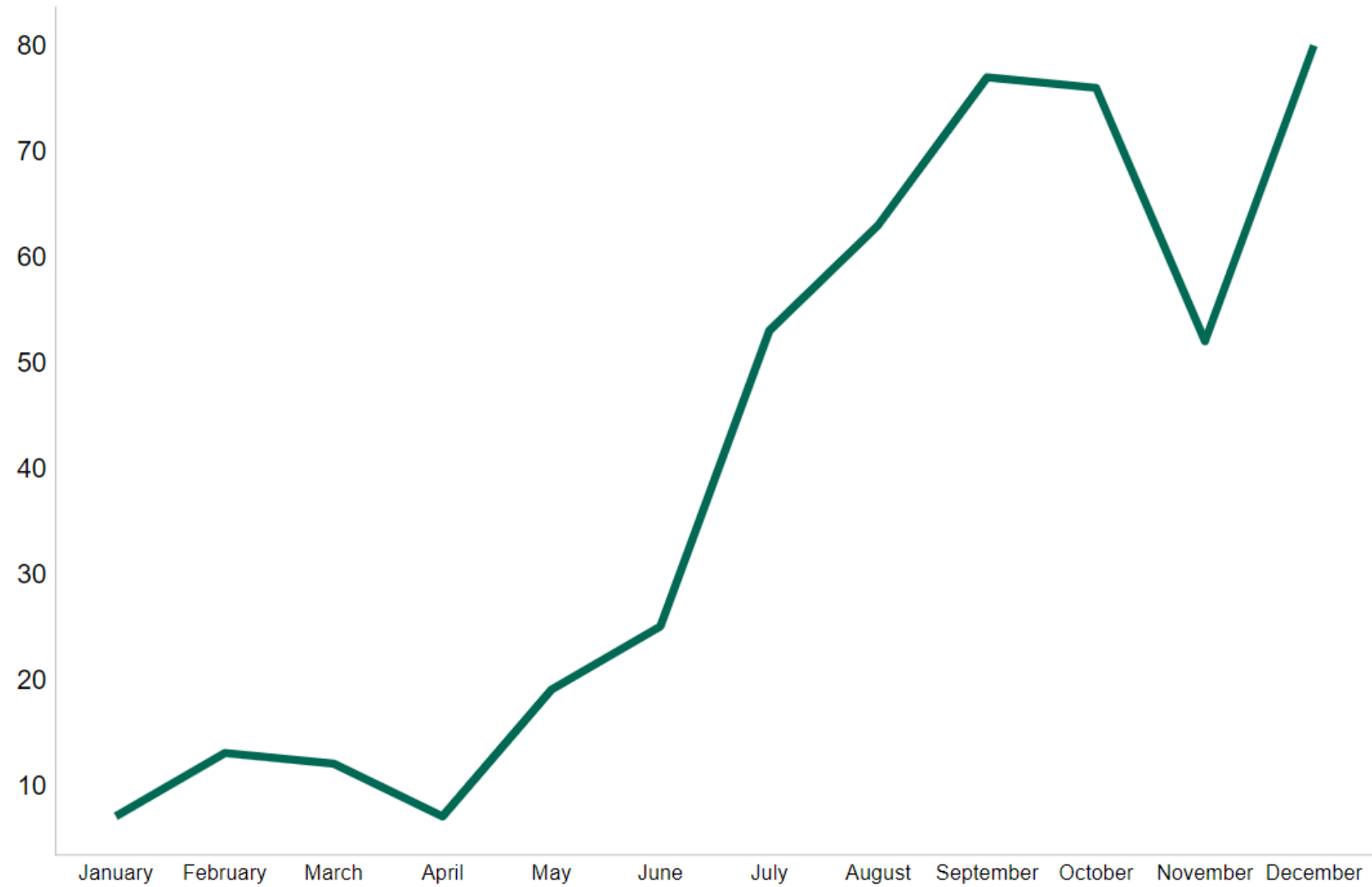
**Chart 2: Index of casualty rates of pedal cycle casualties by severity, GB: 2004 to 2020 (Index 2004=100)**





# ROAD CASUALTIES

Chart 1: Reported casualties in accidents involving e-scooters by month, GB:2020



Source: STATS19



# ROAD CASUALTIES

- Is the 2020 data useful?
  - Can we find out more about vehicle and VRU crashes?
  - Has the type of VRU casualty changed?
  - Is it possible to see reliable local patterns?
- What is happening now?
  - Are we back to 'normal'?
  - Can we use all of the available data better at a local level to predict risk?



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