



### Accident and Casualty Report 2020

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Date:



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### Introduction

- > This report focuses on accident and casualty data for the city of Portsmouth as of 2020, evaluating the years 2018, 2019 and 2020.
- > When an accident occurs, the police record key information such as where the incident occurred, time, number of people involved etc.
- > By analysing this data, patterns can be drawn and proactively used by the council to prevent future incidents from occurring.
- > To further help with the analysis, other data sources have been used. For instance we have reviewed traffic volume data for available sites on the network.
- Covid-19 has changed peoples journey patterns in 2020, consequently impacted the number of accident and casualties.
  - > As a result, this report will mostly compare 2019 to 2020 to show the effect the pandemic has had on the number of incidents.
  - > 2018 has been included to show how the number of accidents can vary year on year.



### **Assumptions and Caveats**

- The data period for these results is 01/01/2018-31/12/2020. The counts for each year can be seen in the chart, with casualties in the darker colour and accidents in the lighter colour.
- > This report will refer to accidents and casualties.
  - > Each incident is equal to 1 accident and at least one casualty, however there maybe multiple casualties for each accident.
  - > For example, if there is a collision between 2 cyclists, this will result in 1 accident and either 1 or 2 casualties.
- > Other factors outside of Covid-19 will result in changes to accidents and casualties, where possible these have been highlighted within the report.
- Some variables within the data are subjective (such as cause of accident).
- > "Damage-only" accidents and those unreported to the police are not included in this publication. Consequently the total number of accidents is likely to be greater.



### **Results Summary - Portsmouth**

- > Covid has resulted in changes to people's commuting habits. This has resulted in a reduced number of traffic in 2020 when compared to 2019.
  - > There is a link between traffic counts and the number of accidents occurring, particularly during the commuter periods on working days.
  - > Increased flexible working and the close of businesses as a result of lockdowns and restrictions has likely caused the reduction in traffic.
  - > The number of accidents involving cars and cyclists saw the biggest decrease.
- Despite the number of accidents and casualties decreasing in 2020, the number of fatal accidents increased from 1 in 2019 to 4 in 2020.
- > The reduction in the number of casualties in 2020 were mainly on roads with a 30MPH speed limit. It is important to note the majority of roads in Portsmouth are 30MPH.
- In 2020, 21% of serious accidents occurred in the most deprived (decile 1) areas of Portsmouth. 64% of serious accidents occurred in deciles 1 4, highlighting most serious accidents in Portsmouth for 2020 occurred in areas of considerable deprivation.

### PCC Vs. Other Districts/Authorities Summary

- > The chart shows a comparison between Portsmouth City Council and the median average for all districts/authorities in Great Britain used in the DfT figures for the following metrics:
  - > Number of reported casualties per million population
  - Number of fatal/serious accidents per billion miles driven
- Portsmouth City Council finished within the top third for both metrics. This suggests that accidents occur more frequently in Portsmouth than most places in Great Britain.
- These figures look to show how the accident/casualty figures compared to other locations in Great Britain.
  Factors outside of the local government's control maybe the biggest cause, such as geography and climate.
- > For more information see pages 42-45.





# Accidents – Overview Findings

### Accident Counts – by Year

- > The chart shows the total number of accidents each year.
- Changes to peoples travel patterns (due to Covid-19 restrictions) has likely resulted in a 12% drop in the number of accidents in 2020 when compared to 2019.
- > There was a small drop in the number of accidents in 2019 when compared to 2018.



### Accident Counts – by Month

- > The chart shows the total number of accidents each month.
- > The largest drop was seen in April 2020, likely due to lockdown restrictions reducing the amount of traffic on the road.
- > Difference between 2019 and 2020 reduces as lockdown restrictions ease until the values are comparable in August.
- > A further small drop in 2020 was observed in November when another lockdown started.
- > October-January generally saw the highest number of accidents, likely due to adverse weather affecting traffic conditions.
  - As well as an increased chance of dangerous conditions such as ice/snow, people may avoid cycling and walking and drive instead.



### Accident Counts – by Day of the Week [1]

- > The chart shows the total number of accidents each day of the week.
- > In 2019, the number of accidents was higher on weekdays than on weekends. This was likely due to traffic being higher during the week as a result of work commuting habits.
- Changes to people's commuting habits as a result of Covid-19 restrictions resulted in a proportional decrease in the number of accidents on every day of the week except Tuesday's and Saturday's.
- Despite fewer accidents overall for the year, Saturday saw an increase in the number of accidents in 2020 compared to 2019. This is now a comparable level of accidents to the weekdays.
- > Tuesday only saw a small reduction in the number of accidents and is now the day of the week with the highest number.



### Accident Counts – by Day of the Week [2]

- > The chart shows the proportion of accidents for each day of the week compared to the proportion of traffic in 2019.
- > There is a correlation between the proportion of traffic and the number of accidents.
  - > There is a higher volume of traffic between the weekdays (Monday-Friday) and lower on the weekend.
  - This profile is somewhat matched by the accident volumes.
  - > Saturday has fewer accidents relative to the amount of traffic compared to other days.
- > Monday-Friday has a consistent proportion of traffic for the entire week.
- > 2020 has a varied traffic and accident profile to 2019.



	Proportion of Accidents	Proportion of Traffic
Peak	17.1%	15.7%
(Day of the week)	(Fri)	(Thu & Fri)

### Accident Counts – by Hour

- > The chart shows the total number of accidents by hour.
- > There is a distinct peak in the number of accidents between the hours of 16:00-18:00 in 2019. This is likely due to the spike in traffic in commuter hours.
- > In 2020 the peak is still at 16:00, however drops much more rapidly. There is also a peak at 14:00.
  - > The pandemic has resulted in changes to commuting patterns with more people working flexibly. This results in less traffic during commuter times, likely resulting in fewer accidents.
  - > There are more accidents outside of commuting times, resulting in the spike in accidents at 14:00.



### Hotspot Analysis – All Accident Types

#### Analytics

- > The 6 hotpots in 2019 are made up of 8+ accidents per 100m<sup>2</sup> and the 7 hot spots in 2020 are made of 9 or more accidents per 100m<sup>2</sup>. The hot spots include all severity types (slight, serious and fatal).
- > In 2020 the 7 key hotspots generally had a greater amount of accidents compared to the 6 key hotspot locations in 2019.
- > Three overlapping hotspot areas can be seen between 2019 and 2020, these are:
  - > M27 Eastbound and A3 Portsbridge roundabout

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- > A2047 Kingston Road
- A2030 Victoria Road and A2030 Goldsmith Avenue





# Accidents – Causal Factors

### **Causal Factors - Introduction**

- > This next section will look at the breakdown of the suspected cause of the accident
- > Key factors to note:
  - > Accidents can be complex and involve many factors. This section only shows what has been reported as the main factor.
  - > The factors are based on the police's best assumption and may not have been verified as true.
- > Accidents and casualties are directly linked, consequently can be assumed to follow similar trends. As a result this means the analysis has not been repeated for casualties.

### Traffic Vs. Accident Counts

- > The chart shows the number of accidents vs. the traffic counts.
- > Chart scales have been removed for a comparison of the trends. It's important to note the traffic counts far exceeds the number of accidents.
- > There is a clear relationship between the traffic counts and the number of accidents.
- Both traffic and the number of accidents reduce by 12% in 2020 when compared to 2019.



### Average Accidents Per Day Split by Day Type

- > The chart shows the average number of accidents per day split by year and whether the day is a working day (weekday) or non-working day (public holiday or weekend).
- > The darker shade represents non-working days and the lighter shade is the working days.
- > The average number of accidents per day is higher on working days than non-working days due to the increase in traffic on the network during commuter times.
- In 2020, the average number of accidents increased on nonworking days, but decreased on working days when compared to 2019. This reduces the gap between the number of accidents on a non-working day compared to a working day.
- > There are far more working days than non-working in a year, therefore the decrease of accidents on working days has greater significance.



### Accidents Per Hour vs. Traffic (Working Day)

- The chart shows the traffic volumes by hour (bars) plotted against the number of accidents (lines) filtered for working days only. The scales have been removed for simplicity.
- > Peak traffic occurs in commuter times, approximately between 07:00-10:00 and 15:00-17:00.
- > The morning commuter period saw an overall decrease in traffic and accidents in 2020 compared to 2019.
- > At 16:00 the traffic values are similar in 2019 and 2020, the number of accidents is also similar in this hour.
- In the subsequent hours (17:00-21:00) the amount of traffic is lower in 2020 when compared to 2019, resulting in comparatively fewer accidents in these hours.



### Accidents Per Hour vs. Traffic (Non-working Day) Analytics

- > The chart shows the traffic volumes by hour (bars) plotted against the number of accidents (lines) filtered for nonworking days only. The scales have been removed for simplicity.
- > Traffic is at it's lowest at 04:00 and builds throughout the day until peaking at 12:00. The traffic then drops off slowly for the rest of the day.
- > The average number of accidents per hour on non-working days is low, resulting in a varying number of accidents per hour.
- Peak number of accidents occurs around the peak of 12:00, however despite relatively low traffic numbers between 17:00 and 22:00 there is a proportionately higher number of accidents.



### **Accident Causal Factor**

- > The chart shows the percentage breakdown for the cause of accidents for each year (if a cause was given).
- > Failed to look properly is by far the main cause for an accident. This reduced slightly in 2020 compared to 2019.
- > There was a 5% increase in the number of accidents caused by a person failing to judge other persons path or speed.
- The proportion of accidents as a result of the driver being impaired by alcohol reduced in 2020 when compared to 2019 by 3%. This is likely due to pubs/bars being closed during lockdown, resulting in fewer drink driving offences.



## Accident Journey Type

- > The chart shows the percentage breakdown for the journey type for each year.
- > Most of the time, the type of journey the vehicle was taking was not recorded, therefore could not be grouped.
- > Journeys that were work related make up around a quarter of all accidents.
  - This figure is likely much higher as the unknown category likely contains a number of work-related driving.



### Hotspot Analysis – Accident Themes 2020

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- > There were 5 key themes noted for the accident hotspots for 2020, these were:
  - > Turning into another road without the suitable observations.
  - Cars coming to an abrupt stop and being hit from behind
  - > Failure to give way at junctions
  - > Reversing and parking error
  - > Cycle/Scooter struck a pedestrian



### Deprivation and Hotspots Analysis – 2020

- > The map shows the England rank of Index of Multiple Deprivation (IMD) 2019 score in deciles by 2011 Census Lower Super Output Areas (LSOAs). Additionally, the map has been overlaid with the ward and hotspots for accidents in 2020.
- > When looking at overall deprivation 15 out of 125 small areas in Portsmouth are within 10% most deprived small areas in England.
- There are 72 accidents within the hotspots for 2020
  - > 31 (43%) occur in the most deprived areas of Portsmouth.
  - Out of the 72 accidents in hotspots, 18 (25%) occur in Charles Dickens.
  - Out of the 72 accidents in hotspots, 12 (17%) occur in Fratton.





# Casualties – Overview Findings

### Casualty Counts – by Year

- > The chart shows the total number of casualties each year.
- Changes to peoples travel patterns has likely resulted in a 12% drop in the number of casualties in 2020 when compared to 2019.
- > There was a small drop in the number of casualties in 2019 when compared to 2018.



### Casualty Counts – by Month

- > The chart shows the total number of casualties each month.
- > The largest drop was seen in April 2020, likely due to lockdown restrictions reducing the amount of traffic on the road.
- > The difference between 2019 and 2020 reduces as lockdown restrictions ease until the values are comparable in August.
- > A further small drop in 2020 was observed in November when another lockdown started.
- October-January generally saw the highest number of casualties, likely due to adverse weather affecting traffic conditions.
  - As well as an increased chance of dangerous conditions such as ice/snow, people may avoid cycling and walking and drive instead.



### Casualty Counts – by Day of the Week [1]

- > The chart shows the total number of casualties each day of the week.
- > In 2019, the number of casualties was higher on weekdays than on weekends. This was likely due to traffic being higher during the week as a result of work commuting habits.
- Changes to people's commuting habits as a result of Covid-19 restrictions resulted in a proportional decrease in the number of casualties on every day of the week except Tuesday's and Saturday's.
- Despite fewer casualties overall for the year, Saturday saw an increase in the number of casualties in 2020 compared to 2019. This is now a comparable level of casualties to the weekdays.
- > Tuesday saw no reduction in the number of casualties in 2020 when compared to 2019. This is now the day of the week with the highest number of casualties.



### Casualty Counts – by Day of the Week [2]

- > The chart shows the proportion of casualties for each day of the week compared to the proportion of traffic in 2019.
- > There is a correlation between the proportion of traffic and the number of casualties
  - Friday and Sunday have a slightly higher proportion of casualties compared to the volume of traffic
  - Conversely, Saturday has a lower proportion of casualties when compared to the traffic counts
- > Monday-Friday has a consistent proportion of traffic for the entire week.
- > 2020 has a varied traffic and accident profile to 2019.



	Proportion of Accidents	Proportion of Traffic
Peak	16.7%	15.7%
(Day of the week)	(Fri)	(Thu & Fri)

### Casualty Counts – by Hour

- > The chart shows the total number of casualties each hour of the day.
- > There is a distinct peak in the number of casualties between the hours of 16:00-18:00 in 2019. This is likely due to the spike in traffic during commuter hours.
- > In 2020 the peak is still at 16:00, however drops much more rapidly. There is also a peak at 14:00.
  - The pandemic has resulted in changes to commuting patterns with more people working flexibly. This results in less traffic during commuter times, hence results in fewer accidents.
  - > There are more casualties outside of commuting times, resulting in the spike in casualties at 14:00 hour.





# **Casualties – Detailed Findings**

### Introduction

- > This next section will look at the age demographics for the casualties as well as the location (including the speed limit in place) and vehicles involved.
- > Important caveats for this section:
  - > Drawing patterns from this data is to help put in infrastructure or procedures to reduce the number of accidents. This is not looking to put blame on a certain demographic.
  - > A casualty of an incident may not necessarily be the person at fault.
  - > It's important to note that just because a demographic has a higher number of casualties, this may be in line with the proportion of the population on the road.
  - > Not all who are involved in an accident may be a casualty.
- > Any number of casualties is too many, particularly if it is fatal or serious. When talking about significance it is purely from a statistical stand point.

### Severity

- > The chart shows the breakdown of the severity for each casualty each year.
- > The number of casualties reported as 'slight' and 'serious' has dropped in 2020 when compared to 2019.
  - This is particularly true for casualties in the 'serious' category which saw a 27% decrease in cases.
  - > The change is likely due to fewer cars on the road.
- Fatal casualties has increased by 300%. Although this is a significant change, there was only 1 casualty in 2019 so any change would cause a big percentage change.
  - > A possible cause for this is the number of occurrence of accidents is less often, however the lower traffic numbers allow for higher speeds to be achieved. Thus, causing more fatalities when an accident does occur.



### Severity – Fatalities, 2020

#### Analytics

- > There were 4 fatalities that occurred in 2020.
- > The map shows the area in which these fatalities occurred.
- > The speed limits for the roads were 30mph, 40mph, 60mph and 70mph.
- > 1 fatality was a cyclist and 3 fatalities were car drivers.
- > There isn't a strong correlation between where the fatal accidents occurred and the serious accidents.

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### Severity – Serious, 2020

#### Analytics

- > The map shows the serious casualties that took place in Portsmouth in 2020. Furthermore, it shows the number of serious casualties by accident location.
- > The top three wards for serious accidents in 2020 were:
  - > Charles Dickens, 12 serious accidents (15%)
  - > Cosham, 9 serious accidents (11%)
  - > Nelson, 9 serious accidents (11%)
- > There were 3 key themes noted for the reason the casualties occurred, these were:
  - Failed to look properly, 37 serious accidents (45%)
  - Poor turn or manoeuvre, 7 serious accidents (9%)
  - Careless/Reckless/In a hurry, 5 serious accidente (6%)

Serious accidents by casualty count

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### Deprivation and Severity – Serious, 2020

- The map shows the England rank of Index of Multiple Deprivation (IMD) 2019 score in deciles by 2011 Census Lower Super Output Areas (LSOAs). Additionally, the map has been overlaid with the ward and the points identified for accidents in 2020 with "serious" casualty occurrences.
- When looking at overall deprivation 15 out of 125 small areas in Portsmouth are within 10% most deprived small areas in England.
- A greater proportion of "serious" accidents occur within areas of considerable deprivation. 18 (21%) accidents occurred in the most deprived 10%.



## Vehicle Type

#### Analytics

- > The chart shows the type of vehicle the casualty was travelling in.
- > Generally the number of casualties are lower in 2020 when compared to 2019.
- Cars had the biggest number of casualties, followed by Pedal Cycles (cyclists)
  - Both saw a significant drop in the number of casualties in 2020 compared to 2019, likely due to reduced noncyclist traffic numbers in the city.
  - > There is an increase in the total number of cyclists within the city (according to PCC cycling counter data), therefore the number of accidents per cyclists has dropped more significantly.
- Motorcycle and 'Other Vehicle' casualties are higher in 2020 compared to 2019.



#### Table of data: Table 13, Page 56

### Vehicle Type (Fatal and Serious)

- The chart shows the type of vehicle the casualty was travelling in if the casualty was injured seriously or fatally.
- > Despite not being the most frequent casualty type, the number of cyclists involved in accidents that resulted in fatal or serious casualties is the most frequent.
  - The number of fatal and serious casualties involving cyclists has reduced from 2019 to 2020, however.
- > Motorcyclists are a much smaller percentage of the total traffic than cars, however make up a larger number of the fatal and serious casualties.
  - > This has increased slightly between 2019 and 2020.
- > The number of other vehicles involved in fatal and serious accidents are too small to draw any meaningful conclusions.



### Speed Limit

- > The chart shows the counts of the speed limit of the road the casualty occurred on.
- > Most casualties occur on roads with a speed limit of 30MPH.
  - This is likely due to the Portsmouth being predominantly restricted to 30MPH in most areas.
  - Between 65%-70% of casualties occur at roads with 30MPH speed limit.
  - > There is a significant drop in the number of casualties in 2020 when compared to 2019.
- > There is fluctuation in the number of casualties on roads with different speed limits between 2019 and 2020, however the counts are relatively low.



## Age of Casualty

- > The chart shows the counts of the age of the casualty.
- > All age groups saw a decrease in the number of casualties in 2019 to 2020.
  - The decrease was not as significant for the 30-44 and 60-74 age groups.
  - > Under 12's saw the biggest decrease likely due to fewer days at school.
- Age groups between 18-29 were previously much more likely to be a casualty than other age groups. However, in 2020 the 30-44 age group is now almost equally as frequent.



### Age of Casualty (Fatal/Serious)

#### Analytics

- > The chart shows the counts of the age of the casualty if they were injured seriously or fatally .
- > Despite the number of casualties decreased for all age groups, this didn't necessarily result in a proportional drop in fatal or serious casualties.
- > People in the 12-17 age group saw a 50% increase in the number of fatal/severe casualties despite an 8% drop in all casualties.
- > Those in the 30-44 age group only saw a 3% drop in all casualty types, but saw a significantly larger drop in fatal/serious accidents.
  - People aged 18-29 also saw a larger decrease in fatal/serious accidents.
- > People over 60 saw a significant decrease in fatal and serious accidents.



	U12	12 - 17	18 - 29	30 - 44	45 - 59	60 - 74	75+
Change [All] (2019-2020)	-65%	-8%	-9%	-2%	-11%	-2%	-36%
Change [Fatal/Serious] (2019-2020)	-83%	+50%	-17%	-44%	-4%	-30%	-33%

Table of data: Table 17, Page 57

### Age of Casualty (Driver/Rider)

- The chart shows the counts of the age of the casualties where they were the operator of a vehicle during the accident. They may or may not be at fault. Cyclists have been removed from the totals (only shows drivers of a motor vehicle).
- Accidents involving 12-17 year old as the operator of a motor vehicle have more than doubled (from 7 to 17). Although remain relatively low.
- Ages 18-29 remain the age group with most drivers involved in accidents although is closely followed by the age groups 30-44.
- > There was a significant drop in the number of accidents involving 45-59 age group drivers, and an increase in those aged 60-74.





# PCC Vs. Other Districts/Authorities

### Introduction

- > This next section will look at comparing the number of casualties against other districts and local authorities.
- > Two different metrics will be looked at:
  - > Number of reported casualties per million population
  - > Number of fatal and serious accidents per billion miles driven
- > Included is the data from all districts and local authorities in Great Britain for the year of 2019. The 2020 data will be released in September 2021.
- > Important caveats for this section:
  - > This section is to compare Portsmouth against other areas in the country. The report is not looking to judge other local authorities. Factors such as the geography and climate play a huge factor in casualties, hence this is not a reflection of the local government.
  - > Estimates for the number of miles driven are estimates, based on models from the DfT
  - > Not all casualties are reported, some further estimations around scaling this number has been made.

### PCC Vs. Other Districts/Authorities [1]

- > The chart shows the number of reported casualties per million population split by districts/local authorities. Included are the following districts:
  - > Top 5 highest
  - > Portsmouth
  - > Median
  - > Lowest
  - > Numbers next to the authority represent the placing out of all authorities (out of 204).
- > The top 5 highest are all London boroughs. Portsmouth is significantly below these number of casualties.
- > However Portsmouth is above the national average and well above the lowest (Isle of Scilly).



	Highest	Median	Lowest	PCC
Reported Casualties Per Million Population	6,563	2,149	449	2,619

### PCC Vs. Other Districts/Authorities [2]

- > The chart shows the number of fatal/serious casualties per billion miles driven split by districts/local authorities. Included are the following districts:
  - > Top 5 highest
  - > Portsmouth
  - > Median
  - > Lowest
  - > Numbers next to the authority represent the placing out of all authorities (out of 204).
- > The top 5 highest are districts made up of multiple towns/cities. Portsmouth is significantly below these number of casualties.
- > However, Portsmouth is above the national average and well above the lowest (Isle of Scilly).



	Highest	Median	Lowest	PCC
Fatal/Serious Casualties per Billion Miles Driven	925	102	1	164



# Conclusion

### Conclusions

- > The levels of traffic within the city is strongly linked to the number of accidents. This is particularly true for the commuter periods.
- > To reduce the number of accidents and therefore casualties it is vital to minimise the levels of traffic by:
  - > Using public transport for journeys.
  - > Using other modes of transport such as cycling or walking.
  - > Encouraging flexible working wherever possible to smooth the traffic demand away from peak periods.
- > Covid-19 has had a clear impact on peoples travel patterns, resulting in a reduction in accidents for the year of 2020.
  - Portsmouth City Council will continue to monitor peoples travel behaviours post lockdown to minimise accidents where possible.
  - > Data will be used to evaluate where road safety projects are required.



# Appendix

### **Covid Restrictions Timeline**

- > 16<sup>th</sup> March 2019 PM says "now is the time for everyone to stop non-essential contact and travel"
- > 26<sup>th</sup> March 2019 Lockdown measures legally come into force
- > 01<sup>st</sup> June 2019 Phased re-opening of schools in England
- > 15th June 2019 Non-essential shops reopen in England
- > 23<sup>rd</sup> June 2019 PM says UK's "national hibernation" coming to an end announces relaxing of restrictions and 2m social distancing rule
- > 14th August 2019 Lockdown restrictions eased further, including reopening indoor theatres, bowling alleys and soft play
- > 22<sup>nd</sup> September 2019 PM announces new restrictions in England, including a return to working from home and 10pm curfew for hospitality sector
- > 14th October 2019 A new three-tier system of Covid-19 restrictions starts in England
- > 31<sup>st</sup> October 2019 Second national lockdown comes into force in England
- > 2<sup>nd</sup> December 2019 Second lockdown ends after four weeks and England returns to a stricter three-tier system of restriction

[3] timeline-lockdown-social (instituteforgovernment.org.uk))

### **Traffic Counts**

- > This report references traffic counts either in the text or within the charts.
- > Portsmouth Council have 2 different traffic counters on the network:
  - > Loops These are placed along roads or cycle paths. When a vehicle drives/rides over it, then a count is recorded if the distance between the front and back wheels are within a certain criteria.
  - > Bluetooth Pick up a Bluetooth signal from a mobile device and encrypts it. If the same device is picked up at multiple locations, assumptions about the journey time and counts can be made.
- > As loop counters give an exact count number, these would have been a preferred data source, however has not been used in this report due to:
  - > Only 2 traffic counters have historical data. The low sample size mean they may not be representative traffic around the city as a whole.
  - > Currently, data at an hourly level has not been made available.
- > As a result of the above, the Bluetooth data has been used as a comparison. Important to note that not all vehicles will have a Bluetooth device, or multiple vehicles be detected at multiple detectors, the exact counts are unknown. Therefore the numbers are not included within this report.
- > The relative volumes should still give a good indication of traffic within each hour. As the proportion of traffic being detected each hour should remain relatively consistent.

## Definitions[1]

- Accident: Involves personal injury occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence.
  One accident may give rise to several casualties. "Damage-only" accidents are not included in this publication
- > Casualty: A person killed or injured in an accident. Casualties are sub-divided into fatal, seriously injured and slightly injured.
  - > Fatal: An accident in which at least one person is killed.
  - > Serious injury: An injury for which a person is detained in hospital as an "in-patient", or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushing's, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accident. An injured casualty is recorded as seriously or slightly injured by the police on the basis of information available within a short time of the accident. This generally will not reflect the results of a medical examination, but may be influenced according to whether the casualty is hospitalised or not. Hospitalisation procedures will vary regionally.
  - > Slight injury: An injury of a minor character such as a sprain (including neck whiplash injury), bruise or cut which are not judged to be severe, or slight shock requiring roadside attention. This definition includes injuries not requiring medical treatment

### **Definitions**[2]

- Index of Multiple Deprivation (IMD): The domains are combined using the following weights: Income Deprivation (22.5%), Employment Deprivation (22.5%), Education, Skills and Training Deprivation (13.5%), Health Deprivation and Disability (13.5%), Crime (9.3%), Barriers to Housing and Services (9.3%), Living Environment Deprivation (9.3%). The weights have been derived from consideration of the academic literature on poverty and deprivation, as well as consideration of the levels of robustness of the indicators. A fuller account is given in section 3.7 and Appendix G of the Technical Report.
- > LSOA: Lower Layer Super Output Areas (LSOA) are population area divisions from the 2011 census data. They typically contain ~625 households or a mean population of ~1500, with a minimum population of 1000. There are 34,378 LSOA in England and Wales (32,482 in England, 1896 in Wales).

## Data Tables [1]

### Analytics

Table 1: Accident Counts by month

	2018	2019	2020
Jan	41	33	50
Feb	32	38	35
Mar	38	38	26
Apr	42	42	16
May	39	35	30
Jun	42	44	36
Jul	49	49	27
Aug	45	35	39
Sep	42	42	42
Oct	51	40	48
Nov	54	54	33
Dec	43	34	45

Table 2: Accident Counts by day of the week

	2018	2019	2020
Mon	89	77	61
Tue	85	78	71
Wed	71	75	61
Thu	78	70	62
Fri	88	83	64
Sat	66	47	66
Sun	41	54	42

Table 3: Accident vs. Traffic Counts by day of the week (2019) %

	Accidents	Traffic Counts
Mon	15%	15%
Tue	16%	15%
Wed	16%	16%
Thu	16%	16%
Fri	17%	16%
Sat	10%	13%
Sun	11%	10%

Table 4: Accident Counts by hour

	2018	2019	2020
00:00	5	7	0
01:00	6	4	0
02:00	2	1	2
03:00	3	0	0
04:00	4	3	2
05:00	7	3	2
06:00	13	5	9
07:00	16	28	19
08:00	45	30	26
09:00	22	27	21
10:00	19	26	19
11:00	26	26	23
12:00	36	22	19
13:00	23	27	31
14:00	49	19	39
15:00	38	31	32
16:00	48	49	46
17:00	42	47	37
18:00	33	40	24
19:00	25	29	14
20:00	12	22	22
21:00	16	18	16
22:00	14	11	16
23:00	14	9	8

### Data Tables [2]

### Analytics

Table 5: Accident Counts by hour (Working Day)\*

	2019 - Accidents	2020 - Accidents
00:00	2	0
01:00	1	0
02:00	0	0
03:00	0	0
04:00	1	2
05:00	3	2
06:00	4	7
07:00	25	19
08:00	27	21
09:00	25	14
10:00	20	14
11:00	18	13
12:00	13	11
13:00	19	22
14:00	14	29
15:00	28	23
16:00	43	41
17:00	38	29
18:00	32	16
19:00	23	10
20:00	19	15
21:00	10	8
22:00	8	12
23:00	7	6

Table 6: Accident Counts by hour (Non-working Day)\*

	2019 - Accidents	2020 - Accidents
00:00	5	0
01:00	3	0
02:00	1	2
03:00	0	0
04:00	2	0
05:00	0	0
06:00	1	2
07:00	3	0
08:00	3	5
09:00	2	7
10:00	6	5
11:00	8	10
12:00	9	8
13:00	8	9
14:00	5	10
15:00	3	9
16:00	6	5
17:00	9	8
18:00	8	8
19:00	6	4
20:00	3	7
21:00	8	8
22:00	3	4
23:00	2	2

Table 7: Accident Causal Factor

	2018	2019	2020
Failed to look properly	42%	37%	36%
Failed to judge other persons path or speed	7%	6%	12%
Poor turn or manoeuvre	6%	5%	7%
Careless/Reckl ess/In a hurry	5%	4%	4%
Impaired by alcohol	3%	7%	4%
Disobeyed Give Way or Stop sign or markings	3%	4%	5%
Loss of control	2%	2%	4%
Following too close	3%	2%	3%
Slippery road (due to weather)	3%	2%	1%
Too close to cyclist, horse or pedestrian	3%	1%	0%
Other	24%	29%	25%

\*Data for traffic counts is not available (see page 50)

### Data Tables [3]

### Analytics

#### Table 8: Accident Journey Type

	2018	2019	2020
Taking pupil to/from school	1%	2%	0%
Pupil riding to/from school	1%	1%	0%
Commuting to/from work	7%	13%	12%
Journey as part of work	10%	12%	12%
Other	18%	34%	41%
Unknown	64%	39%	34%

#### Table 9: Casualty Counts by month

	2018	2019	2020
Jan	50	38	62
Feb	39	41	42
Mar	43	40	29
Apr	48	48	16
May	48	46	35
Jun	47	47	42
Jul	53	55	29
Aug	57	42	41
Sep	46	45	48
Oct	57	53	55
Nov	62	65	40
Dec	49	43	56

Table 10: Casualty Counts by day of the week

	2018	2019	2020
Mon	104	83	68
Tue	99	89	89
Wed	80	88	67
Thu	87	88	69
Fri	103	94	74
Sat	74	58	82
Sun	52	63	46

Table 11: Casualties vs. Traffic Counts by day of the week (2019) %

	Casualties	Traffic Counts
Mon	15%	15%
Tue	16%	15%
Wed	16%	16%
Thu	16%	16%
Fri	17%	16%
Sat	10%	13%
Sun	11%	10%

### Data Tables [4]

### Analytics

#### Table 12: Casualty Counts by hour

	2018	2019	2020
00:00	9	8	0
01:00	7	8	0
02:00	3	3	2
03:00	5	0	-
04:00	4	4	2
05:00	8	3	2
06:00	13	5	10
07:00	17	32	22
08:00	52	32	29
09:00	24	29	25
10:00	19	28	27
11:00	30	31	23
12:00	45	25	20
13:00	32	29	38
14:00	57	27	48
15:00	43	32	35
16:00	55	57	53
17:00	43	52	45
18:00	39	48	27
19:00	27	37	18
20:00	12	29	25
21:00	22	21	16
22:00	18	12	18
23:00	15	11	10

Table 13: Casualty Counts by Vehicle Type

	2018	2019	2020
Car	302	279	247
Pedal Cycle	182	165	133
Motorcycle	64	67	77
Taxi/Private hire	24	18	8
Goods Vehicle	13	18	13
Other Vehicle	7	2	13
Bus or MPV	7	14	4

Table 14: Casualty Counts by Vehicle Type (Fatal and Serious)

	2018	2019	2020
Car	38	34	23
Pedal Cycle	45	48	32
Motorcycle	21	24	26
Taxi/Privat e hire	3	1	1
Goods Vehicle	3	5	1
Other Vehicle	4	1	3
Bus or MPV	1	1	2

### Data Tables [5]

#### Analytics

Table 15: Casualty Counts by Road Speed Limit

	2018	2019	2020
20	69	59	74
30	424	393	320
40	41	41	45
50	22	16	7
60	13	10	13
70	30	44	36

Table 16: Casualty Counts by Age of Casualty

	2018	2019	2020
Under 12	27	37	13
12 - 17	58	52	48
18 - 29	169	159	145
30 - 44	146	139	136
45 - 59	117	106	94
60 - 74	51	42	41
Over 75	31	28	18

Table 17: Casualty Counts by Age of Casualty (Fatal/Serious)

	2018	2019	2020
Under 12	2	6	1
12 - 17	15	8	12
18 - 29	34	29	24
30 - 44	22	32	18
45 - 59	18	23	22
60 - 74	14	10	7
Over 75	10	6	4

Table 18: Casualty Counts by Age of Casualty (Rider/Driver)

	2018	2019	2020
Under 12	-	-	-
12 - 17	14	7	17
18 - 29	65	79	75
30 - 44	66	72	73
45 - 59	48	62	44
60 - 74	27	20	22
Over 75	15	10	10

Table 19: Number of reported casualties per million population split by districts/local authorities

	Reported Casualties Per Million Population
1. Westminster	6,563
2. Kensington & Chelsea	5,002
3. Hammersmith	4,229
4. Lambeth	4,162
5. Tower Hamlets	4,157
56. Portsmouth	2,620
102. Median	2,069
204. Isles of Scilly	450

Table 20: Number of fatal/serious casualties per billion miles driven split by districts/local authorities

	Fatal/Serious Casualties per Billion Miles Driven
1. Hampshire	925
2. Lancashire	821
3. Kent	773
4. Essex	745
5. Lincolnshire	741
60. Portsmouth	164
102. Median	102
204. Isles of Scilly	1

### **Roads and Speed Limits**







### References

- > [1] Source: Casualties involved in reported road accidents (RAS30) GOV.UK (www.gov.uk)
- > [2] Reported Road Casualties Great Britain: Notes and Definitions September 2017 (publishing.service.gov.uk)
- > [3] timeline-lockdown-social (instituteforgovernment.org.uk))
- > [4] The English Indices of Deprivation 2019 (publishing.service.gov.uk)
- > [5] 2001-Census geography.pdf (publishing.service.gov.uk)