

Difference in transport during COVID

Data sources

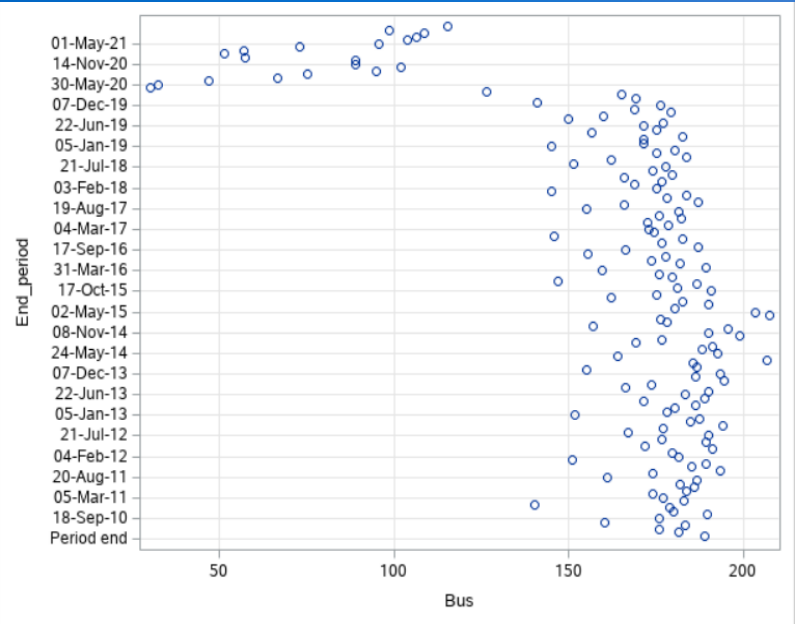
The two data sources that has been gathered is information from Gov.uk on transportation data, and it includes number of journeys with bus & underground, and transit in percent from baseline of pre COVID. The data that has been analysed is from a trustworthy source.

Information about data

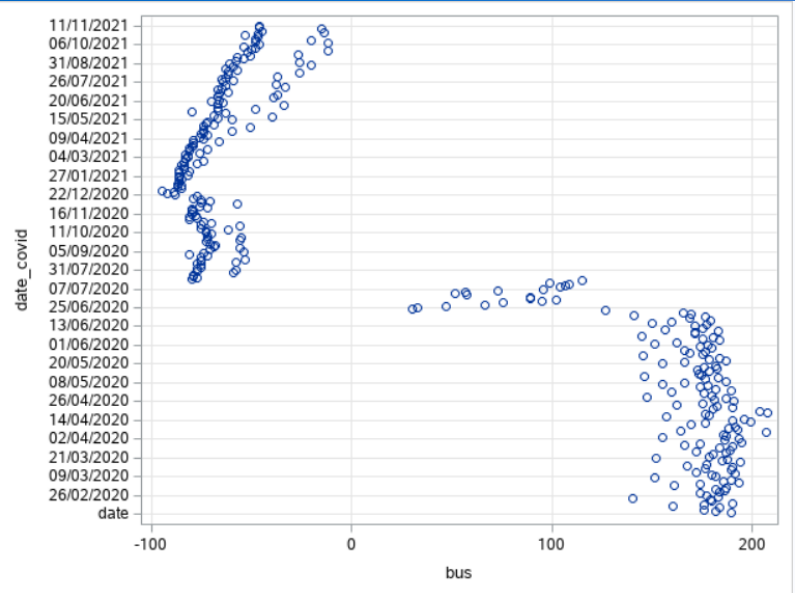
The data that has been captured is from two sources.

One of them are number of journeys in London, by bus from 2011 to 2021. The other is a percentage change in baseline of transit movement in London. The data was cleansed by removing redundant information and deleting columns of locations other than Greater London.

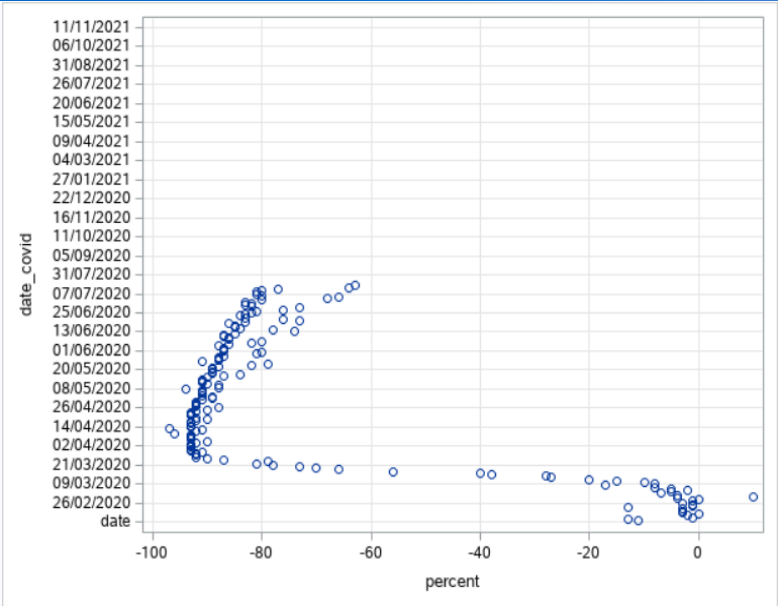
Graphical analysis



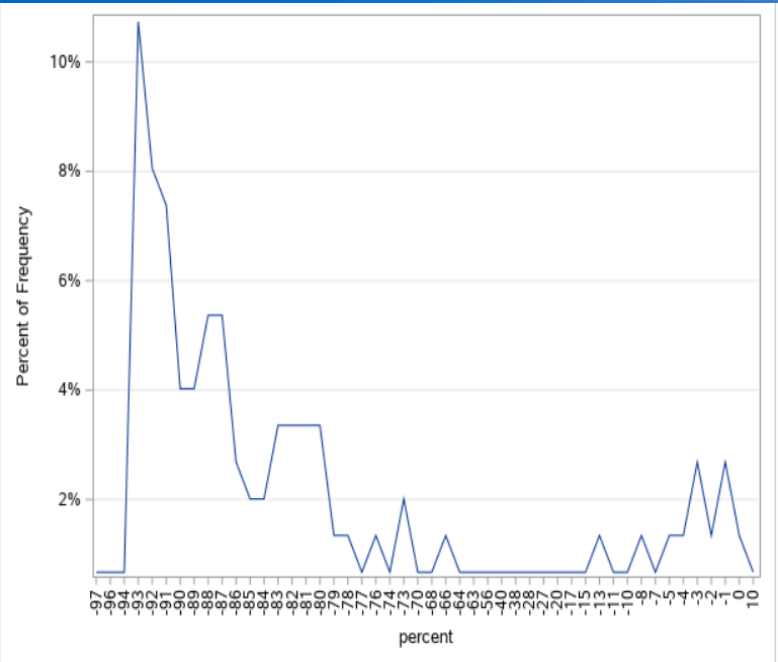
Scatter plot showing the bus journeys from period of 2010 to 2021.



Scatter plot of bus journeys during the height of COVID cases. As seen on the figure, the bus journeys reduced drastically during the summer of 2020.



Scatter plot of the percent of transit movement in Greater London. Like the bus journey graph, this graph demonstrates the reduced visits of transit stations & movement within transport.



Line chart showing the frequency baseline percentage when it was at maximum. At most there was a 11% frequency of -93% of baseline in transit movements. The baseline percentage was barely above 10%, a frequency of 3%.

Statistics of bus journeys

Variable: Bus

N	Mean	Std Dev	Std Err	Minimum	Maximum
149	163.7	36.3783	2.9802	30.2000	207.5

Mean	95% CL Mean	Std Dev	95% CL Std Dev
163.7	157.8 169.6	36.3783	32.6640 41.0533

DF	t Value	Pr > t
148	54.93	<.0001

This figure displays the mean number of journeys that happened during periods between 2011 to 2021. An average of 163.7 journeys a day in London by bus and a standard deviation of 36.37

A T-Test done on the statistics of bus journeys.

Statistics of transit post covid to now

Variable: Percent_change

N	Mean	Std Dev	Std Err	Minimum	Maximum
638	-66.8433	21.8583	0.8654	-99.0000	10.0000

Mean	95% CL Mean	Std Dev	95% CL Std Dev
-66.8433	-68.5426 -65.1439	21.8583	20.7211 23.1284

DF	t Value	Pr > t
637	-77.24	<.0001

Similar to figure 1, this figure displays the average percentage change in transit. A -66.84% from baseline which is a colossal average. The standard deviation is 21.85%.

A T-Test done on the statistics of transit movement.

Conclusion

There was massive reduction in transportation during the summer of 2020 and a whole -93% from the baseline of transit movement was the major frequency during COVID. Looking at the scatter plot of bus journeys from 2011 to 2021 one can see that after May of 2020 the journeys reduced drastically in London. To conclude the data that has been analysed and presented on this poster, COVID obviously has affected transportation in Greater London and probably around other parts of England. People are afraid of contracting the virus and staying inside seems like the safest way of keeping yourself healthy.

References

- <https://data.london.gov.uk/dataset/public-transport-journeys-type-transport>
- <https://data.london.gov.uk/dataset/google-mobility-by-borough>