

How does Covid impact hospitality businesses in London?

Using visualisation tools in Python to generate findings

5 min read

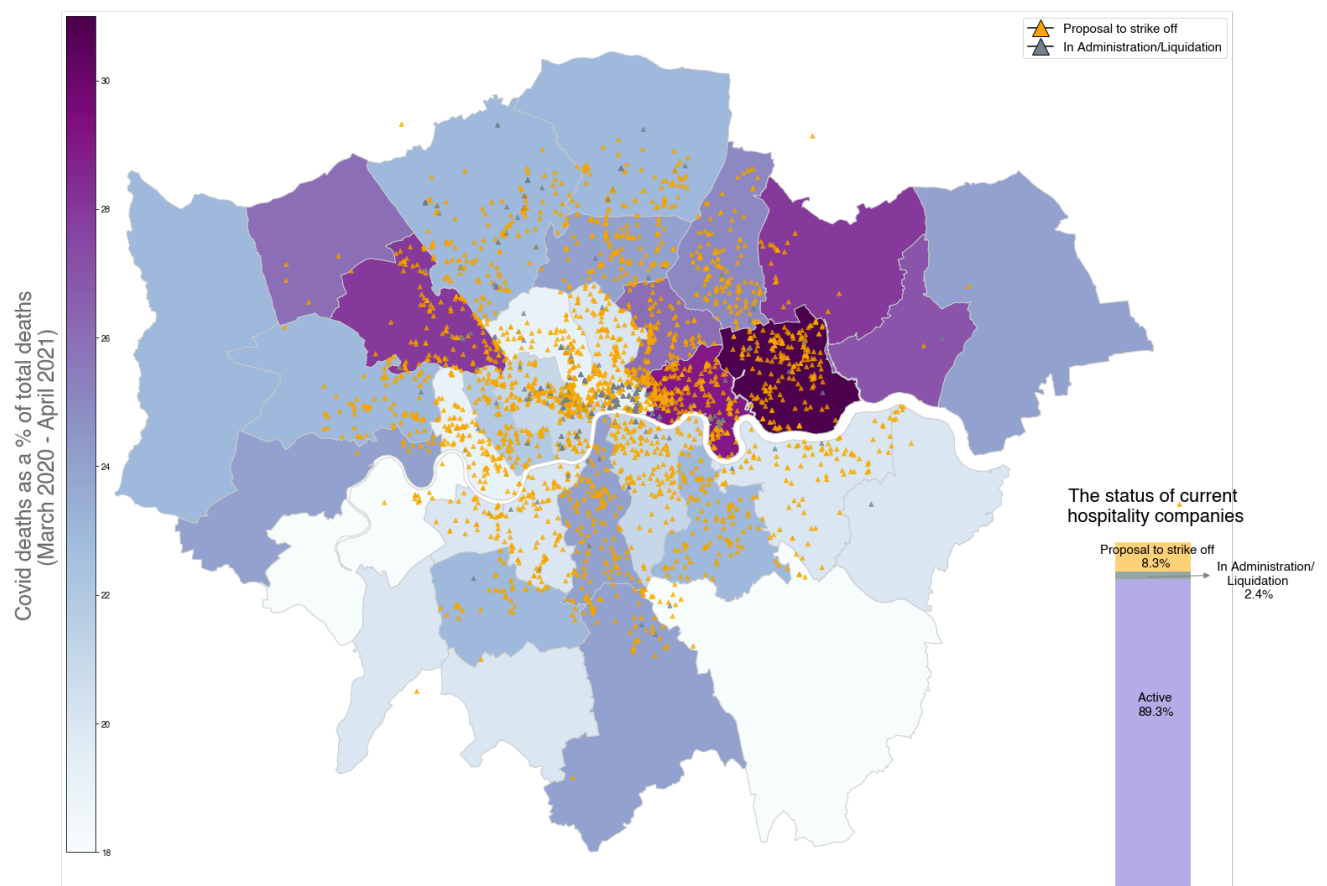


Introduction

Being one of the earliest and hardest hit area by COVID-19 in the UK, London's hospitality sector has experienced a significant decline in business revenues (KCL, 2020). This post aims to investigate the effect of Covid on London's hospitality services.

Visualisation

Status of Hospitality Business vs COVID-19 death rate in different London Boroughs



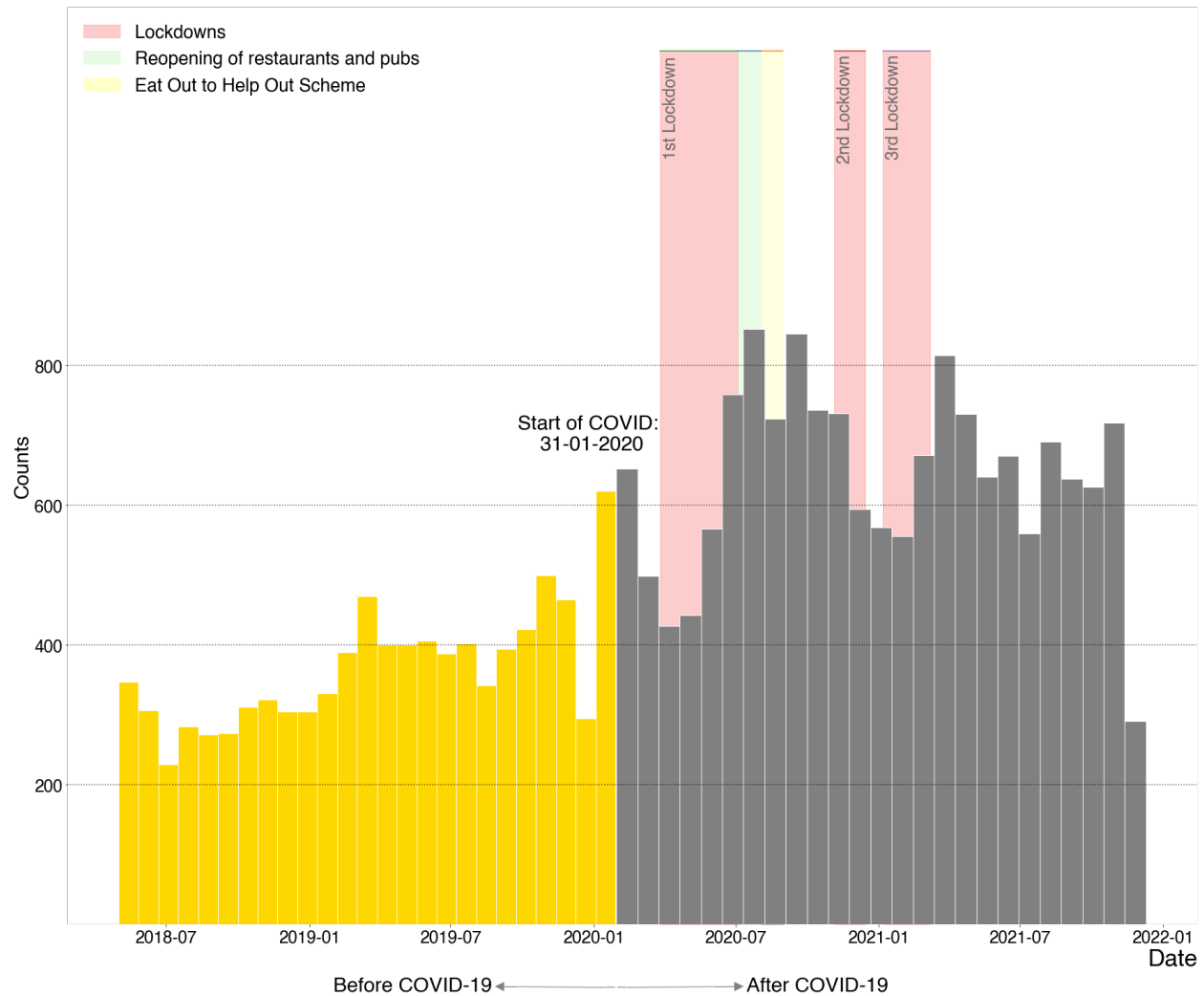
Firstly, this graph visualises the death rate in different London Boroughs provided by National Statistics (2021), along with the distribution of London hospitality businesses that are in strike off or Administration/Liquidation status. As shown in the stacked bar chart, around 10% of

current hospitality businesses are at risk. Businesses that are proposing to strike off mainly scattered around the upper central part of London in which a high concentration around Tower Hamlets and Westminster areas is observed. Notably, businesses that are going into administration or liquidation are also primarily distributed in a similar location.

However, it is evident that businesses that are in a challenging status do not necessarily locate in the boroughs that receive the most severe impact. In fact, they are distributed in the areas where most of its neighboring boroughs have a high death rate. This suggests that the death rate of the local borough affects business operation to an extent, but the functioning is significantly influenced by the average death rate of its neighboring areas.

The geospatial graph is used to facilitate a clear identification of the difference in death rate across London Boroughs, along with its correlation to the operation of London's hospitality businesses. Particularly, a colormap is utilised to present the actual death percentage and to minimise the density of information display. The stacked bar chart aims to provide a summary on the operation of the sector, enabling a better overview on the impact of Covid.

Number of New Hospitality Business registered through COVID-19 in London



Secondly, the number of hospitality business formation before and after Covid is compared, along with the time periods of different government regulations. The regulations' dates are retrieved from Institute for Government (2021). Overall, more new hospitality businesses have established after Covid than before. In particular, the number of new businesses peaked when restaurants and pubs started to reopen during the first lockdown. The second peak is observed after the introduction of government's Eat Out to Help Out scheme. Alternatively, it is evident that new business numbers dropped remarkably when the three lockdowns came into force. These results indicate that government's regulations did impact the business confidence of

London's hospitality sector; Lockdowns imposed uncertainty while reopening boosted a confidence of economic growth.

The chart utilised a histogram to reflect the distribution of new hospitality business formations and is separated into two timelines using the colors of yellow and grey. The contrast in color allows better comparison of results. The split also acts as a reference line for the start of Covid. The bars of different time periods for government regulations have been designed to outgrow the bars of distribution as it can differentiate the messages being delivered.

Conclusion

Overall, the business formation patterns are largely dependent on lockdown regulations and the average Covid death rate surrounding the area.

Reference

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