

An ESRC Data Investment



## The impact of the night tube on Westminster's Night Economy

Paula White<sup>1</sup>, Steven Gray<sup>1</sup> and Dominic Baker<sup>2</sup>

# <sup>1</sup>University College London, <sup>2</sup>City of Westminster Council

#### **Project Background**

The City of Westminster has the largest evening and night time economy (ENTE) in the UK; it is larger than the ENTE's of Edinburgh, Birmingham and Manchester combined. The highest concentration of Westminster night time provisions is found in the West End, an area comprising of Soho, Leicester Square, Piccadilly Circus and Covent Garden – it is a major tourist destination within the UK and internationally. In addition, with the introduction of Night Tube in August 2016 to December 2016 there are now 8 stations operating in and around the vicinity of the West End for 24 hours Friday and Saturday nights. There is widespread interest from businesses, residents and policy makers to understand the ENTE in the London borough of Westminster and the West End in particular

#### **Data and Methods**

First, work was undertaken to understand the problem domain, next data were collected, cleaned and reformatted, after which exploratory data analysis were undertaken to give a solid foundation for detailed discovery steps. The analysis for this study covered three keys areas; footfall and incidents, commercial premises applications and social media analysis. These were undertaken using a number of techniques from GIS, quantitative methods, data mining and social media analytics.

Service data and commercial premises application data has been provided by Westminster City Council. The Consumer Data Research Centre provided footfall data. This is from the Smart Street Sensor project which is a partnership project between UCL and Local Data Company (LDC). A variety of social media was sourced via IBM Watson Analytics, a data exploration and visualisation tool.

#### **Key Findings**

Overall this study, has shown that the West End is still undoubtedly a massive, highly dense, hub of activity.

There were four geographical areas of analysis in the following areas; The West End, Victoria and surrounding area, Marble Arch and surrounds and Bayswater. Comparisons were made from a reference footfall before the Night Tube and the various changes through and after its deployment.

There was a significant increase in footfall on Friday and Saturdays in parts of the West End by 202% and 219% respectively. By contrast, Thursdays only have a 164% increase. In Bayswater, Friday and Saturdays saw an 80% increase in comparison to 50% on Thursdays. Note that these are proxy values only so are indicative of areas of change rather than showing complete accuracy.

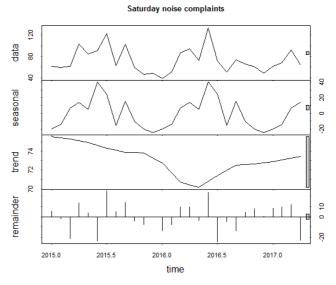


Figure 1. Saturday Night Noise Complaints

As can be seen from Figure 1, it was also observed that street noise complaints are on the increase. Analysis showed that many of these complaints have a higher relative density in the West End but there is also a relative increase in the Victoria area.

Since the Night Tube deployment, the data indicates some shifts in the locations of applications for commercial premises of hotels and pubs which are now more dispersed across the borough. There was also a significant growth in Casino applications, as well a short-term trend toward applications for smaller capacity pubs.

London's nightlife seems to have a positive sentiment on social media as does the Night Tube from a worldwide audience which reflect London's global status as a vibrant and exciting world class city.

### Value of the Research

This dissertation found some answers to important questions about the direction the ENTE is taking in Westminster and starts to allow for better conversations and thinking about the city ENTE. It also provides some thoughts on future research data and approaches to further the understanding of this fascinating topic in greater detail.