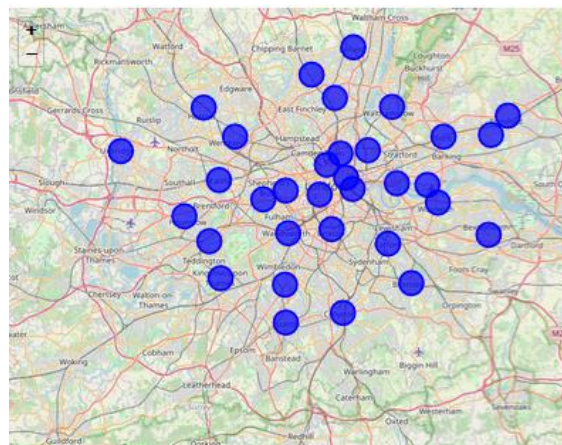# Project background and business case

London is made up of 33 boroughs with relatively important differences between areas.

The analysis aims to assist young families to help identify suitable residential areas in London, UK. Though preferences as to the most suitable residential areas certainly vary, we assume that a certain number of key "requirements" will be shared across families with young children.

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Data and Methodology

The project will aim to rely on the following data sources:

- **Foursquare:**
  The API will be used to identify areas with higher number of child-friendly entertainment options,
  parks and malls. (Source: Foursquare API)
- **School Database:** The school types as well as the number of students in each school type per Borough.
  (Source: data.london.gov.uk)
- **Economic Indicators:** Borough economic indicators as defined by its mean disposable income.
  (Source: data.london.gov.uk)
- The below map gives an overview of the layout of the Boroughs in London. Whilst they concentrate towards the middle of the City, there are a fair number of Boroughs with more of a suburban feel.
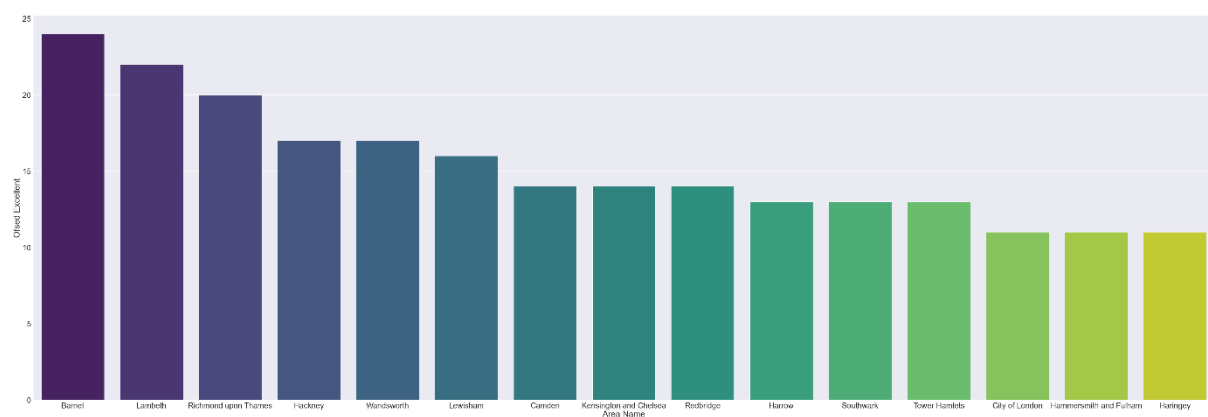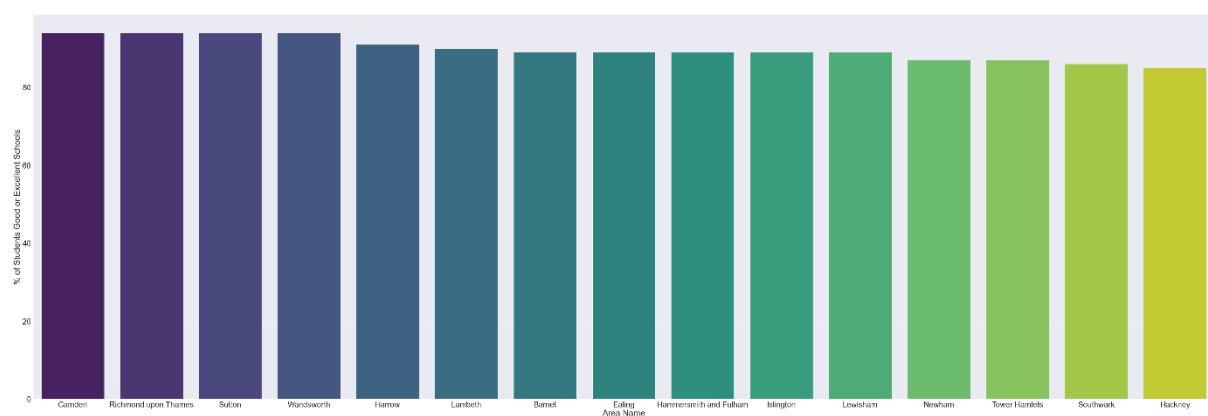

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Data Analysis

The UK school system is largely split across the public (state-funded) and private (independent) institutions at the primary and secondary levels. It is reported that in general, independent schools tend to receive a higher grade by the UK Education Authority (Ofsed) as their public counterparts.

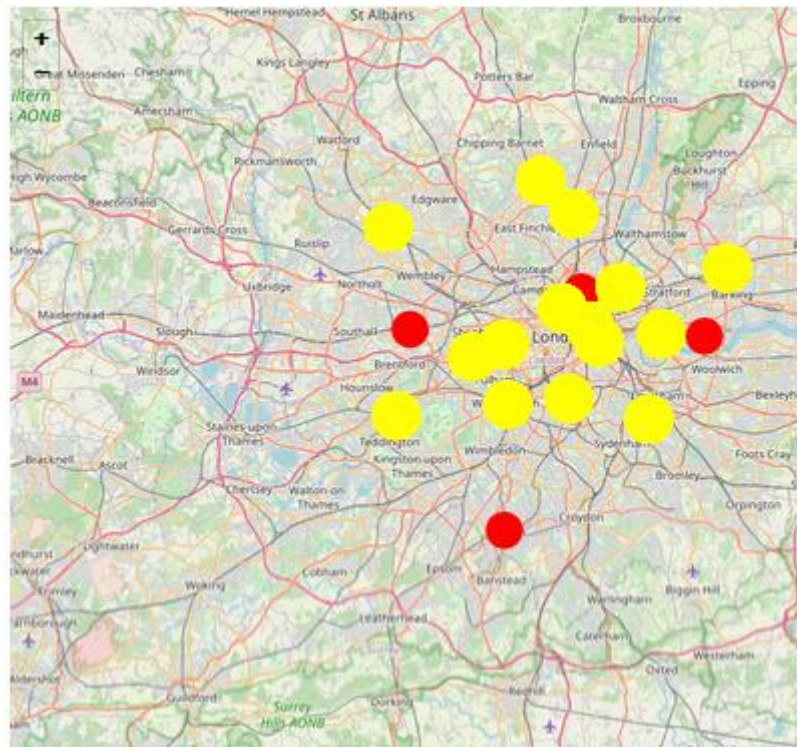Initially, we will first identify the top 15 Boroughs based on the following criteria:

- Number of schools rated as ***"Excellent"*** or ***"Good"*** by the UK Education Authority (Ofsed)

- Number of students estimated by the UK Education Authority (Ofsed) to be attending a Good or Excellent school within each Borough.
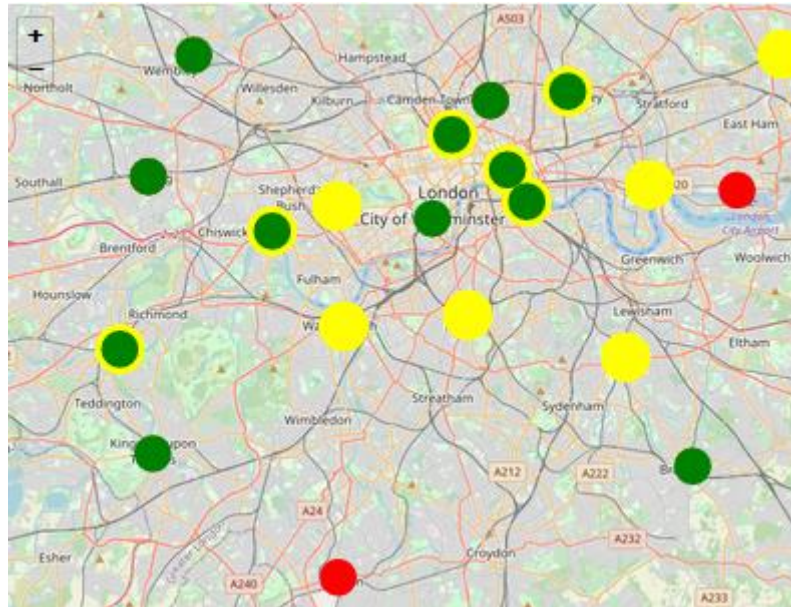
- The datapoints are presented jointly on a map. The Yellow Dots indicate the top 15 boroughs with the highest number of excellent schools. As there is almost a one-to-one match with student data (as outlined above), we are comfortable that we are using the top school statistics across London.

The second part of the analysis is to validate family-friendly amenities across London using the Foursquare API's data source. We have defined the following venue categories as being" family friendly":

- Arts & Crafts Store
- Bakery,
- Bookstore,
- Botanical Garden,
- Bubble Tea Shop,
- Café,
- Garden,
- Grocery Store,
- Park,
- Market,
- Church,
- Event Space,
- Performing Arts Venue

After data review and data wrangling, we can identify and score each Borough based on the availability and prevalence of the above venues.   Once we superimpose this analysis over our Education map (as shown above), we are in a good position to identify the most family-friendly boroughs in London, these being the bubbles with both Yellow and Green colouring.

Results and Conclusions

Our analysis focuses on and analyses the primary schools across the 33 boroughs in London, UK. Combining the data with areas of interest young families might find attractive, the analysis aims to recommend areas for raising young families.

Our first finding, perhaps not surprisingly, is that the proportion of students in independent schools tends to be highest in the wealthiest boroughs in London. There is almost a perfect overlap between the data.

Perhaps more surprisingly, our second finding shows that school performance is not correlated with the respective borough's wealth (as measured by personal disposable income). We would have expected that wealthier areas may also house the best schools (as rated by the UK Education Authority). Of the top 15 wealthiest areas analysed (of the 33 boroughs), the top 5 wealthiest areas were "at the back of the pack" in terms of school performance.

As a young family trying to identify in which Borough of London to settle, it is critical to keep in mind that the wealthiest areas may not necessarily have the best-rated schools.

Once we have identified the set of Boroughs with the best school systems, we then proceeded to pull in "family friendly amenities" (e.g. Parks, Event spaces, etc.) using the Foursquare API. Superimposing the data, we are able to review and assess which areas in London have

both the required educational network as well as the amenities a young family may choose to enjoy.

Based on this analysis, we have identified the **City of London ("Downtown")**, **Hammersmith and Fulham**, **Richmond**, **Hackney**, **Camden**, **Southwark** and **Haringey** as the most suitable areas for your families to explore further. As a long-time resident of London, based on anecdotal evidence, the above conclusion seems to be in line with the results of this analysis.

Obviously, any final analysis would need to include other factors (proximity to work, real estate, etc.), however the analysis gives a strong indication as to where a young family may start looking to explore potential residential areas.