

Capstone Project

The Battle of Neighborhoods

Report

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1. Introduction

1.1 Background

It is found that people in the UK shift houses a lot. But what causes them to move their houses? Shifting is a very tedious and painstaking process, there must be a strong reason behind their movement. According to a survey which included 1,000 people, slightly more than half said that the chief motivation was for upping sticks. Other popular reasons for moving were access to shops and amenities (35 per cent), being close to family/friends (32 per cent), reducing running costs (31 per cent) and needing a bigger home (30 per cent).

Each year, approximately 4-5% of the population will move to a different city or county in the UK.

London being the city of choice, is quickly increasing in population density. On a yearly basis, nearly 200,000 people move from elsewhere in the UK to live in London, while only 25,000 move the opposite way.

1.2 Problem

A survey of 2,00 people by “Which?” has shown that 18 per cent of the people have trouble finding a home in an ideal area which ticks all the right boxes.

Neighborhood can play a very important role in choosing a home and so this is the problem that I wish to solve.

1.3 Aim

Aim of this project is to find clusters of neighborhoods which are suitable for people to move in.

2. Data Requisites

2.1 Acquiring Data

The data required for this project is compiled from various data sources. The first data source comprises of the London Crime Data which shows the crime per borough in London.

The dataset contains the following columns:

- **lsoa_code:** code for Lower Super Output Area in Greater London.
- **borough:** Common name for London Borough.
- **major_category:** High level categorization of crime.
- **minor_category:** Low level categorizations of crime within major category.
- **value:** Monthly reported count of categorical crime in a given Borough.
- **year:** Year of reported counts, 2008-2016.
- **month:** Month of reported counts, 1-12.

The second source of data is scraped from a Wikipedia page that contains the list of London Boroughs. This page contains additional information about the boroughs, the following are the columns:

- **Borough:** The names of the 33 London boroughs.
- **Inner:** Categorizing the borough as an Inner London borough or an Outer London Borough.
- **Status:** Categorizing the borough as Royal, City or other Borough.
- **Local authority:** The local authority assigned to the borough.
- **Political control:** The political party that controls the borough.
- **Headquarters:** Headquarters of the borough.

- **Area (sq. mi):** Area of the borough in square miles.
- **Population (2013 Est):** The population in the borough recorded during the year 2013.
- **Co-ordinates:** The latitude and longitude of the boroughs.
- **Nr. in map:** The number assigned to each borough to represent visually on a map.