

## Exploring the utility of the 2011 Work Place Statistics to help The Co-op better understand transient new store locations, worker flows and worker demographics

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### Background and Motivation

We consider the utility of census-derived Workplace Zone (WPZ) population statistics to supporting location-based decision making in the convenience grocery retail sector. Using Co-op trading data for highly transient Central London stores, we explore the link between workplace population composition and the observed temporal store trading patterns. The construction of WPZs following the 2011 census enables us to explore small-area spatial variations in highly transient workplace populations not previously captured by the residential geography used for the dissemination of population statistics. This can afford new insights into the factors driving observed consumption behaviours at Co-op stores in Central London, where trade is dominated by highly transient workplace populations.

### Data and Methods

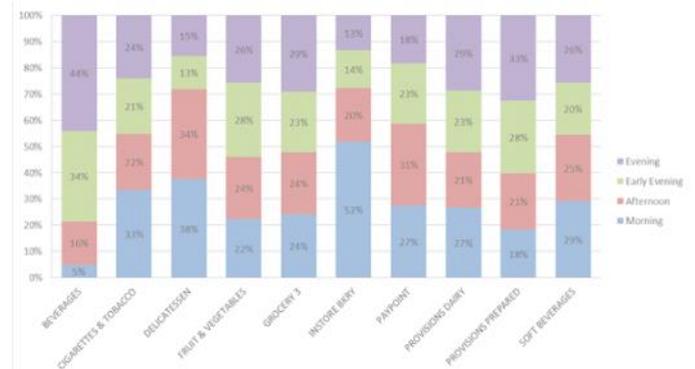
Key Data: WPZ population statistics: Freely available via the ONS website and developed using 2011 Census statistics related to self-reported workplace location. Co-op store performance data focussing on Time-of-Day purchase records for 10 product departments generating the greatest proportions of revenue across key transient stores within Inner London. Inferences about workplace population characteristics within these WPZ statistics included:  
 \*Age, sex and key socio-economic characteristics  
 \*Travel-to-Work method \*Residential origin (by OA)  
 We used these statistics to identify the characteristics of workplace populations within predetermined 500/700m buffers around five Inner London case study Co-op stores. Inner London's dominance as the central hub for workers identified it as the area requiring further analysis while the five case studies were chosen to provide a variety of worker demographic characteristics and store performance data for investigation. Flow data analysis was developed to identify inflows of commuters to workplaces within these buffers to enable an understanding of where workers live.

### Key Findings

This research has resulted in considerably improved analytical detail of population composition around key Inner London stores. Findings show that workplace populations are heavily concentrated, most notably around the City of London and Canary Wharf. The majority of these people have a residential origin within Greater London and form the highest socio-economic groups. They have greater disposable incomes and will be looking to purchase more premium options. Average distances travelled

by customers to the most central Inner London

stores can be expected to exceed 20km. Areas such as Sevenoaks were found to be key commuter towns outside of Greater London, with highly affluent populations. Stores can expect the vast majority of sales to originate during three periods of the day: before work (8-9am): during lunchtime (12-2pm) and after work (5-7pm), with the key sales period being the purchase of lunch. Stores in areas with a lower workplace population density experience a gradual increase in trade throughout the day, until a major spike after 5pm. They experience a greater proportion of their sales in the evening in the form of more residential expenditure. The most successful transient stores are located directly next to/opposite major transport nodes, probably driven by greater footfall and visibility. They should focus on providing a time-efficient shopping experience to allow for large customer flows of which the average basket spend is relatively low. Key goods are sandwiches and snacks while incentives to encourage repeat purchase such as a discount on dinner when purchasing lunch could be adopted to increase sales.



Time of day revenue analysis of Top 10 product departments at transient Inner London Co-op stores

### Value of the Research

This research is based on use the of novel population statistics which have provided the Co-op with enhanced insight into workplace population characteristics around key transient stores in Central London. This includes a detailed break-down of customer spending habits by product category within stores in the case study locations. This will enable them to make informed decisions about developing revenue prediction models for stores in highly transient workplace locations. It can also be used to support the identification of potential new store locations by providing an indication of the volume and composition of non-residential trade.