Jan-Dec 2022

Review of High Street Footfall in England

HIGH STREETS TASK FORCE

HIGH STREETS TASK FORCE

ABOUT THE HIGH STREET TASKFORCE

The High Streets Task Force is an alliance of placemaking experts. Commissioned in 2019 by the Ministry of Housing, Communities, and Local Government (now the Department for Levelling Up, Housing and Communities) the Task Force provides the encouragement, tools, skills and training that communities and local government need to transform their high streets.

www.highstreetstaskforce.org.uk

REPORT AUTHORS

Cardiff University

Dr Christine Mumford, School of Computer Science and Information

Manchester Metropolitan University

Afroditi Maria Kazakou

Professor Cathy Parker

Dr Michael Sewell

Review of high street footfall in England for 2022

EXECUTIVE SUMMARY

As the third report of a four-part annual study on footfall in England's high streets, this document examines and analyses how footfall volumes and patterns have changed in the post-Covid era. Understanding footfall is crucial in helping place leaders understand their area's vitality and viability. It helps us understand how people use their high street and indicates what attracts people to the town centre.

This report has examined data from a wide range of towns and cities across the country to show the ways places have been impacted by the Covid-19 pandemic. Using data provided by Springboard we have been able to compare data across place; daily, weekly, and monthly to see the change before, during and after the pandemic to analyse change over time and to see if towns have recovered.

Overall Trends

This report shows that since 2019 footfall in town centres has declined by 17%. Due to the impact of Covid, there can be no accurate predictions for the future or an accurate assessment as to whether footfall will continue to decline at this rate, and so we must wait for the data to stabilise and for a 'new normal' to emerge. However, the key finding of this report is that despite falling footfall, **high street shopping habits have not changed since before the pandemic**. July and August are still the busiest months, and it appears that people continue to visit high streets on the same days of the week, and at the same times, we assume for the same reasons, *but with less frequency*. For example, Christmas, Easter trading and Black Friday have seen a decline in footfall in comparison to 2019 data; but the evidence in this report shows these are still very important periods for high street activity.

Classifying High Streets

This report reflects the variety of reasons why people go to town centres and uses footfall data to classify high streets by their activity patterns to help us better understand how our towns are used by the public. To help understand and analyse how places may change over time, this report has focused on annual, weekly, and daily footfall data.

Annual Footfall Classifications

Studying how footfall changes over the months of the year allows us to designate all towns into one of four categories. These are Comparison towns, which are the traditional shopping centres which see footfall peaks in the run up to Christmas; Holiday towns which are popular for tourists and for 'days out' and busiest in the summer months; Multifunctional towns meet a variety of needs, such as shopping, leisure, and employment and do not have any noticeable peaks in footfall through the year; and Speciality towns which are a 'hybrid' type between holiday and comparison towns, with

footfall peaks in the summer and before Christmas. These towns usually have a strong heritage or cultural offer.

Research into these towns has shown that Holiday and Speciality towns tend to remain fixed in their identities as unique or tourist destinations, however, Comparison and Multifunctional are more likely to change their classification categories over time as they aim to adapt to the changing consumer climate. There are now 6 fewer multifunctional towns and one less comparison town in 2022 than there were in 2019. A much larger decline in the number of comparison towns was seen before 2017 when 13 changed their classification from comparison towns to another town type (e.g. multifunctional, speciality, or holiday).

Weekly Footfall Classifications

The report identifies two types of towns; those which have their highest footfall on Saturday, and those which are steady from Monday through to Friday.

Places which are classed as Saturday Peak towns and cities tend to be at least twice as busy than the others and it is evident that people are overall, going into town centres more at weekends and less during weekdays. In addition, the number of towns which can be classed as 'Saturday Peak' has increased by 10%.

Daily Footfall Classifications

The report classifies two types of town – those which have an All Day Economy and those which have a Midday Economy. All Day Economy places tend to see peaks in footfall at 1 and 3pm. Midday Economy towns have a peak at around 12pm but tend to see footfall drop off more sharply during the afternoon, they also have less footfall overall. Places which identify with an 'All Day Economy' see higher footfall levels. There are now slightly more (3%) All Day Economy towns in our sample.

Active Hierarchy

We found that smaller places had similar footfall levels in 2022 as they did in 2019 (districts showed a decrease of just 5.6% compared to major cities, where footfall levels were 17.5% lower in 2022). This trend, which we also detected during the pandemic, is likely to be the result of changes in working practices with substantial numbers of people still working from home at least part of the week, visiting their local centres for their supplies, instead of large town and city centres where most offices are based.

Table of Contents

EXECUTIVE SUMMARY 2

1 Introduction 6

1.1 How to use this report 7

1.1.1 Local Authorities 7

1.1.2 Town Councils, BIDs and other place partnerships 8

1.1.3 Community groups and local business associations 8

1.1.4 Users of the High Streets Task Force Standard or Advanced Dashboards 8

1.2 Method 9

1.2.1 Analysing historical footfall 9

1.2.2 Forecasting footfall 9

2 Overall Footfall Trends in England 10

2.1 Monthly Comparisons 12

2.2 Daily Comparisons 13

2.3 Daytime and Night-time Economies 13

2.4 Seasonal trends and key trading periods 15

2.5 Section Summary 18

3 Classifying High Streets by Activity Patterns 19

3.1 Annual Signatures 19

3.1.1 Comparison Towns 20

3.1.2 Holiday Towns 21

3.1.3 Multifunctional Towns 21

3.1.4 Speciality Towns 21

3.2 Weekly Signatures 27

3.2.1 Saturday Peak 29

3.2.2 Monday Through Friday Steady 29

3.3 Daily Signatures 30

3.3.1 All Day Economy 31

3.3.2 Midday Economy 31
3.4 Section Summary 32
4 Footfall and town size 34
4.1 Footfall volumes and the retail and activity hierarchies 34
4.2 Section Summary 35
Appendix A 36

1 Introduction

The High Streets Task Force (HSTF) was commissioned by the Ministry of Housing, Communities and Local Government in 2019, before the start of the COVID pandemic, as a five-year programme to help place leaders reinvent their high streets in response to a long-term decline in town centre vitality. However, since COVID-19, the role of the HSTF has evolved to support hundreds of local authorities, businesses, and members of the wider community respond to the pandemic. It has provided a national hub of data, training and expert advice, helping to deal with all the challenges impacted by lockdowns and the many other COVID restrictions. Now that we are finally emerging from the pandemic, the HSTF is available to help town and city stakeholders adapt to any "new normal" scenarios as they appear. A firm evidence-base is fundamental to the HSTF approach. Both HSTF Experts and local place leaders need data; to identify the need for an intervention, develop the appropriate intervention, and to assess the success of that intervention. Useful sources of data include economic activity assessed by level of spend, consumer opinion assessed by survey, online reviews, social media analysis, and the vibrancy and use of the town centre assessed by counting footfall. Backed by years of research and experience, the Institute of Place Management, the lead partner in the HSTF, has identified footfall as the most important indicator of town centre vitality. Footfall is very responsive and allows us to measure the changes on the high street almost in 'real-time'. Furthermore, there is a close relationship between footfall and other important indicators such as spend, property/rental values, and occupancy rates. One way footfall is measured is using automatic footfall counters, such as those provided by Springboard, the consortium partner of the HSTF responsible for providing footfall data. In addition, the HSTF has developed a manual counting programme that towns have been undertaking, some relying on volunteers to carry out the counts. It is also possible to calibrate WIFI or mobile phone data with expert help, to give an indication of levels of activity.

Given that most COVID restrictions ended towards the end of 2021, with the legal requirement to self-isolate ending in England on 24th February 2022, we have seen people return to their high streets once more. This report establishes to what extent footfall volumes and patterns have or have not changed as a result of the pandemic. Armed with over a decade of Springboard hourly footfall counts from all around England and, where relevant, the wider UK, we will examine in detail how post-pandemic activity compares to that observed before the pandemic.

This footfall review is predominantly intended to be a reference document, to understand how England's high streets are recovering and evolving as a result of COVID-19. It has been written for place leaders, government, and for the delivery arm of the High Streets Task Force. We explain how the report should be used in the following section, with the rest of Section 0 being devoted to our methodology.

1.1 How to use this report

This is the third of four annual reports on footfall in England's high streets that form part of the information and data provision from the High Street Task Force's Professional, Research and Data Group. The previous reports were published in August 2020, and August 2021, covering July 2019 to June 2020[1] and July 2020 to June 2021[2], respectively. In order to move to entire calendar years (January to December), instead of splitting the years, July to June, our final two reports will cover 2022, and 2023, each in its entirely. These previously published reports are recommended reading in conjunction with the present document. Nevertheless, this current review has been written as a 'stand-alone' document and summarises all the main points from earlier work required to understand it.

The Task Force is funded by government until the end of June 2024 and offers support to local authorities and other place-makers and leaders as they seek to transform and redefine their high streets. As mentioned above, the main purpose of the report is one of reference, to understand how footfall is changing on England's high streets; present various town types, based on patterns of annual, weekly, and daily footfall patterns; and finally, help to mitigate for the devastating effects of COVID-19.

1.1.1 Local Authorities

Councils with planning authority can use this report to compare trends in footfall against national trends (Section 0), both pre- and post-pandemic. It is important to identify those places that may not be recovering their previous forms and functions, which is an issue for many larger centres since the start of the COVID pandemic, highlighting the need for more strategic interventions. Comparing footfall volumes to the levels in the activity hierarchy presented in Section 0 will assist planning authorities with future designations (district, town, regional centre, major city) based on activity levels as the country emerges from the pandemic.

In addition, local authorities will be able to identify the town types of those settlements (comparison, holiday, multifunctional and speciality). This will help them develop strategies for recovery and reinvention that are congruent with the underlying function of the town (see Section 0). Understanding the daily and weekly footfall profile will also ensure initiatives to encourage more people to use or invest in their town are successful.

[1] https://www.highstreetstaskforce.org.uk/media/b5dnkp4z/hstf-footfall-report-2020-for-publication.pdf
[2] https://www.highstreetstaskforce.org.uk/media/opcelyp1/footfall-report-2021-final-for-publication.pdf

1.1.2 Town Councils, BIDs and other place partnerships

Town councils, BIDs, town teams, and other place partnerships can use the report in a similar way to local authorities. Whilst these organisations do not have statutory responsibility for planning, they may be able to provide local analysis needed to understand how specific locations are faring, in relation to national footfall trends (Section 0). These organisations are well placed to bring together local stakeholders to explore the town types (Section 0) and work up plans and strategies that are congruent with these functions.

1.1.3 Community groups and local business associations

In some towns and neighbourhoods there are no formal partnerships, BIDs or other organisations, like a town or parish council, that 'coordinates' the high street. In these cases, community groups and/or local business associations, like Chambers of Commerce, can use the report in the same way as formal partnerships, to build a better understanding of the town, to assist the local planning authority with designations or local plans, and to share the insight around businesses and other key players. Even where place partnerships exist, community groups and local business associations are essential in providing additional capacity and expertise in analysing data and presenting and disseminating results.

1.1.4 Users of the High Streets Task Force Standard or Advanced Dashboards

Over 690 high streets now have a Standard or Advanced Dashboard provided by the Task Force, to help place leaders understand and analyse footfall in their unique and local locations. Individual users that have dashboard access and/or who are involved in the manual counting programme can learn more about broader footfall trends through reading this report.

If you would like to find out more about High Streets Task Force Dashboards or the manual counting programme, then please visit the Task Force website (https://www.highstreetstaskforce.org.uk).

1.2 Method

The data analysis has been undertaken by a team from Cardiff University and the Institute of Place Management at Manchester Metropolitan University. A full list of authors can be found at the front of this report.

1.2.1 Analysing historical footfall

The footfall data is obtained from automated counting technology, provided by Springboard.

Springboard's counters record the number of people passing by a given point every hour, and we accumulate this into yearly, monthly, daily, or hourly time series as required. We also combine counts from different locations (for example, all the town and city locations in England, or the UK) to obtain an overall picture. When combining footfall from different locations and studying its movement over a number of time periods, for example to obtain a five-year trend as we do in Section 0, it is important we have exactly the same towns and counters in the whole data set. Any counters added or removed from town and city locations during the period covered by a given time series must be excluded from the data. For this reason, there are differences in the number of towns and locations contributing to a particular data set, depending on the period covered. For the five-year trend between 2015 and 2019, only counters that have been active for the whole of the period are used. As more counters have been added (and a few removed) over the years, data sets covering only short periods of time and those covering more recent years are likely to include more locations in more towns and cities. A limitation of this study is that we only have footfall data for places that have Springboard counters installed, amounting to a maximum of around 200 town centres/high streets and 600 individual counter locations in England. However, this is a dynamic situation, with counters installed in new places every year, and some counters being removed, which means in practice we usually work with far fewer than 600 counters to ensure continuity throughout a given period.

1.2.2 Forecasting footfall

In Section 0, we use sophisticated modelling techniques to forecast what footfall would have looked like in 2020, 2021 and 2022 should the COVID-19 pandemic have not occurred. The forecasting technique involved the use of four model libraries from the R programming language (Auto-ARIMA, ETS, TBATS and NNETAR). First, we accumulated monthly Springboard footfall data from locations in towns and cities throughout the country to form a combined time series to represent the whole of England. Next, we tested each of the four R models in turn to discover which one produced the smallest modelling error on our time series data. The best performance was observed from the Auto-ARIMA method, as is illustrated in **Error! Reference source not found.**, Section 0.

2 Overall Footfall Trends in England

This section will focus on footfall volumes in 2022 for English towns and cities and study the extent to which footfall has recovered since the Covid pandemic. To put this in context, it is important to note that footfall had already been falling slowly in previous years. The study will involve taking averages from large numbers of footfall counters, from all around England, from large cities to small districts to highlight some overall national trends.

Figure 1 shows average monthly footfall for the five years before COVID, based on 232 counter locations in 98 English towns and cities. The overall drop from 2015 to 2019 was 3.7 %. Although slowly declining in magnitude, a similar month-by-month pattern is observed every year during this five-year period, which in normal circumstances would make it possible to produce relatively reliable forecasts for the following year or so.

Figure 1 also shows a forecast for 2020, 2021 and 2022 using the methods outlined in Section 0, based on the previous 5 years, predicting a decline of about 2.4 % on 2019 levels for the period between the start of 2020 and the end of 2022.

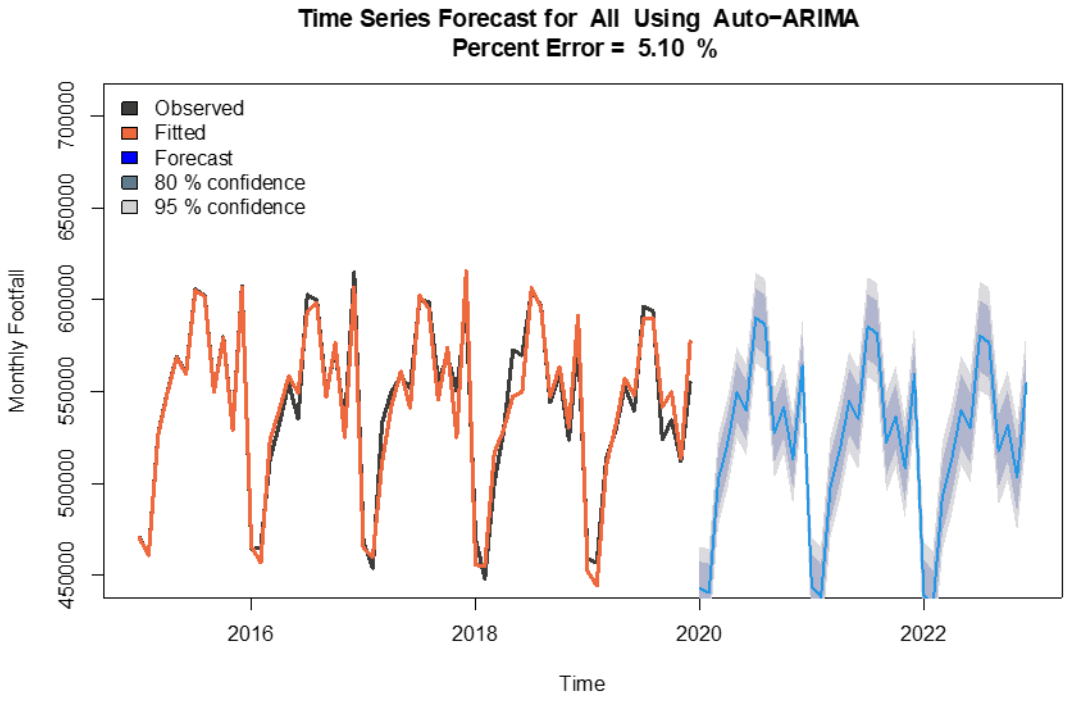

Figure 1: Average monthly footfall for 232 locations in 98 English towns and cities for the five years before the COVID pandemic. The figure includes forecasts for 2020, 2021 and 2022 based on pre-pandemic trends.

Figure 2 gives the five-year trend as a 12 monthly rolling mean over the five years culminating in 2019. Clearly, the commonly applied forecasting methods based on several past years of data (see introduction for the forecasting methodology) are no longer appropriate, following the exceptional influence of the COVID pandemic. This is illustrated in Figure 3, where we compare the forecasted average monthly footfall between January 2020 and December 2022 against actual recorded average monthly footfall over the same period, using the same 232 locations as plotted in Figure 1 and Figure 2. The disruption caused is all too obvious in 2020 and 2021. Nonetheless, we also observe an encouraging recovery in 2022, moving towards the expected monthly patterns and volumes. Yet, footfall volume for the whole of 2022 is still some 17.0 % down on 2019 levels. It is worth noting that we will require at least two more years of "normal" footfall data before we can resume our forecasting exercise. This reinforces the importance of high streets collecting their own data and understanding the nature of their own recovery in the meantime.

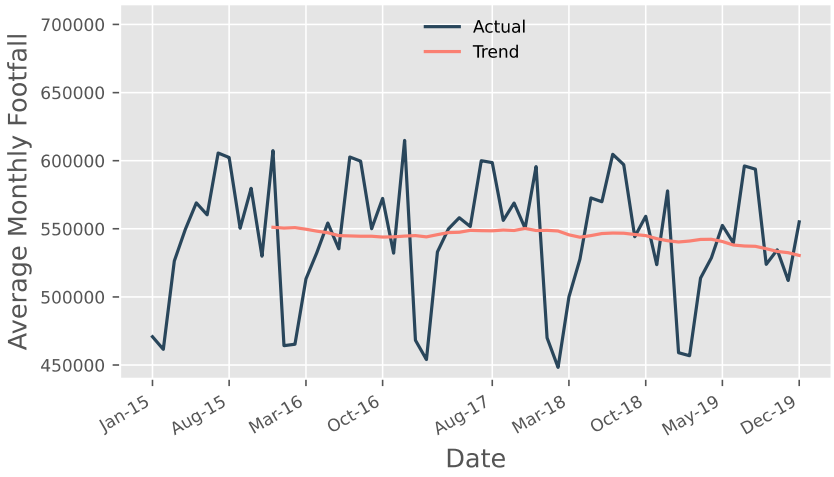

Figure 2: Overall footfall trend for five-year period, 2015 – 2019.

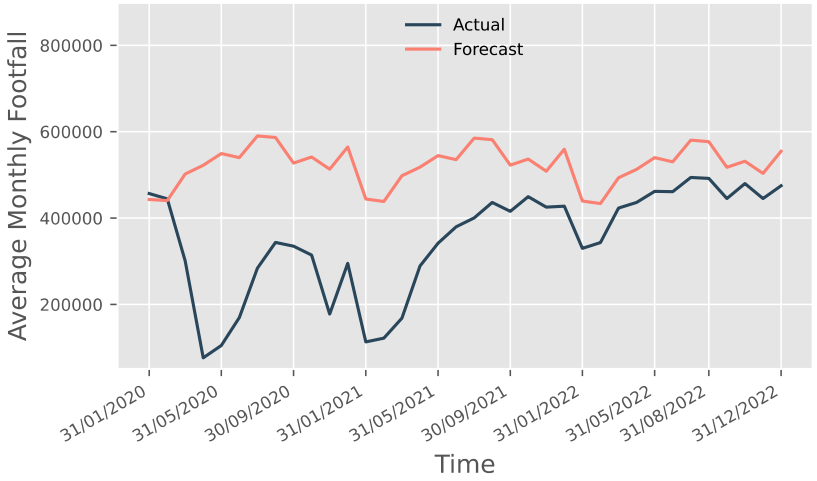

Figure 3: Comparison between average footfall In England with a pre-COVID forecast based on the previous five years monthly data.

Our reports covering 2020 and 2021 identified that the impact of the pandemic on footfall was not uniform (for example smaller places fared better than larger ones) and we suggested some trends may 'stick' post-pandemic. For example, we shall see in Section 0 that Friday has replaced Saturday as the busiest day of the week in smaller towns and cities, stabilising a trend first noted during the pandemic. This is not the case for larger locations, where the busiest day remains Saturday. In the next few subsections, we will examine how overall volumes have changed since the pandemic, by directly comparing 2022 volumes with those from 2019. We will start by observing average footfall volumes month by month, and then we look at how volumes compare according to the days of the week, and finally the hours of the day.

2.1 Monthly Comparisons

We observe monthly footfall comparisons in

Figure 4 which demonstrates the average monthly footfall by volume for 453 counter locations in 179 English towns and cities for 2019 and 2022, with the month-on-month percentage changes noted at the top of the rectangles. The graph illustrates that January and February 2022 show the biggest drop in footfall, compared to 2019. This is hardly surprising, given that some COVID regulations were still in place, and during this time, people were required to self-isolate. Nevertheless, once the final restrictions were lifted (end of February 2022), monthly footfall has still not regained its pre-pandemic levels even by December 2022. Recovery appears somewhat uneven across the months. Footfall in October 2022 is only 9% down on the same period in 2019, but December 2022 is 14% down, compared to 2019. Internet sales increased dramatically over the COVID period, and, according to the ONS represented 26.6% of retail sales in December 2022, compared to 21.4% in December 2019. Increased use of the internet may account for less visits to high streets, especially in the run up to Christmas. However, whilst volumes have fallen, the distribution of footfall across the months of 2022 is very similar to 2019. This suggests pre-pandemic habits have not changed radically post-pandemic. People still tend to visit their town at the same times, and we assume for the same reasons – they just do so less frequently.

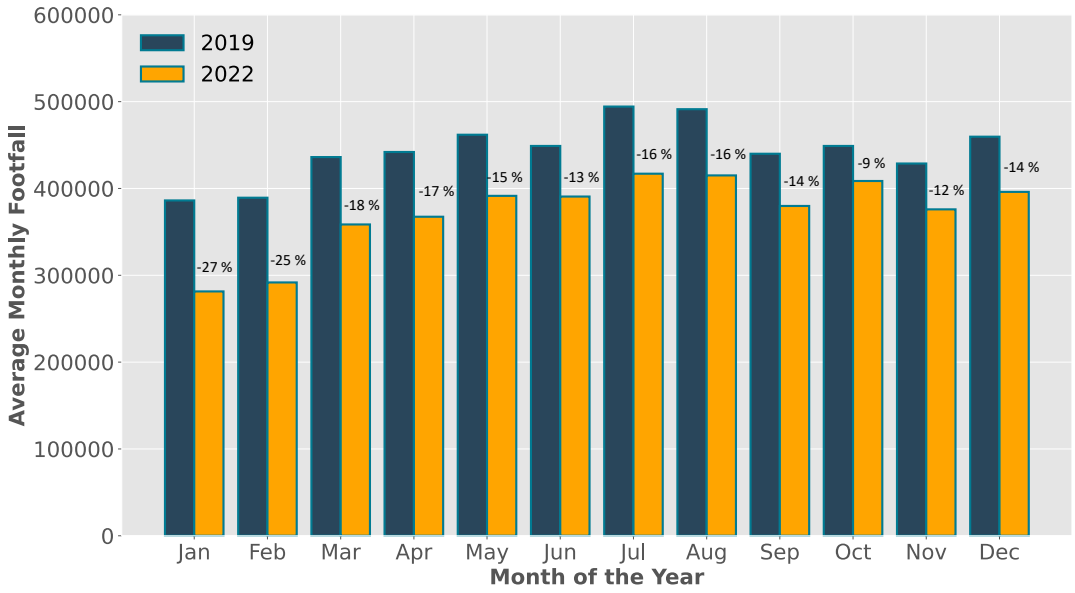

Figure 4: Total monthly footfall for 453 locations in 179 English towns and cities. Comparing 2019 and 2022.

2.2 Daily Comparisons

Figure 5 illustrates the volume of footfall over our sample towns averaged for each day of the week, comparing 2019 levels with 2022. Once again, we find that footfall volume has not yet caught up with 2019 levels. Similarly, we observe that the distribution of visitors through the days of the week in 2022 is very similar to that found in 2019, although we note that Saturday and Sunday, recording just 12% less footfall in 2022 than in 2019, have recovered better. This is interesting as in previous reports we noticed working from home had benefitted smaller centres, as people used the local shops and services, but it appears from this graph that people are still more likely to visit their town centre on a Saturday, rather than through the week or on a Sunday.

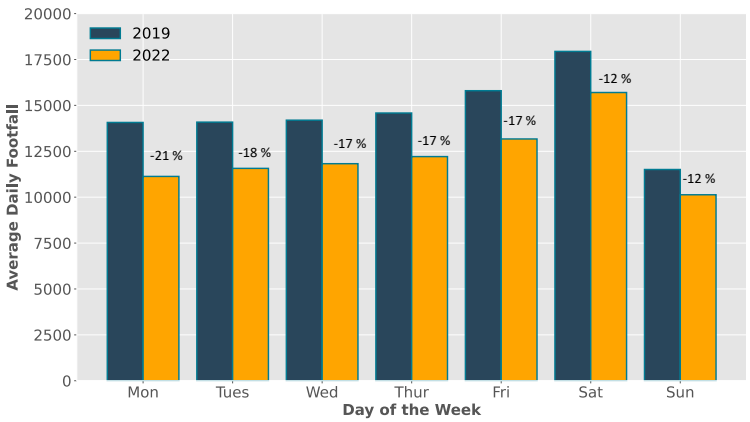

Figure 5: Average daily footfall from 453 locations in 179 English towns and cities. Comparison between 2019, and 2022.

2.3 Daytime and Night-time Economies

Figure 6 shows the spread of footfall through the hours of the day. Defining the daytime economy between 6 am and 6 pm, it accounts for 81.6 % and 79.6 % of daily footfall for 2019 and 2022 respectively. As with the daily comparisons, the graph illustrates that there is no evidence of dramatic changes to consumer behaviour between 2019 and 2022, although the distribution is clearly flatter for 2022, showing that footfall is more spread out through the hours of the day. Nevertheless, the majority (almost 80% of people) still visit their high streets between 6am and 6pm. Pubs, restaurants and nightclub owners should be cautiously encouraged by the slight (2 %) shift towards the night-time economy shown in 2022. Against the backdrop of the pandemic and the devastating impact this had on the hospitality industry, it is a positive sign to see a 2% capture of total footfall.

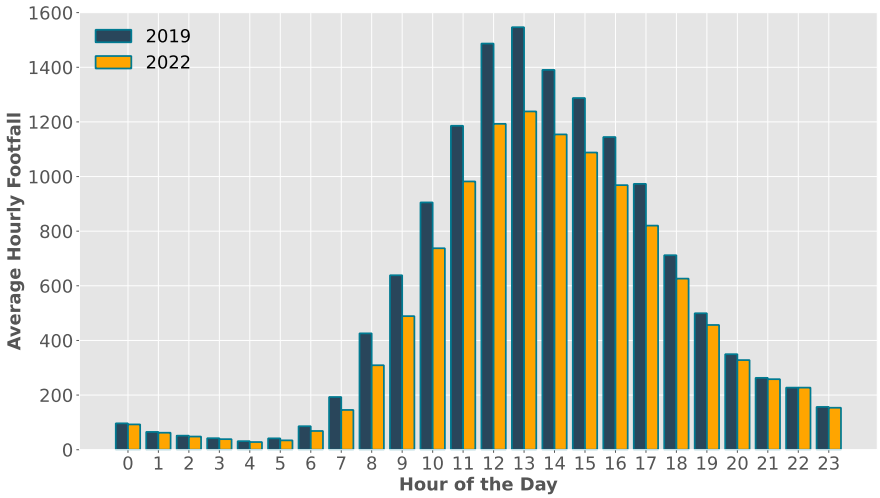

Figure 6: Average hourly footfall for 545 locations in 220 English towns and cities. Comparing 2019and 2022.

Another way to divide up the hours of the day is employed by Springboard. In this approach we consider daytime to coincide with what is generally understood to be standard working hours: 9 am to 5 pm. The other categories are early evening and night-time (full definition below).

- Daytime: 9am – 5pm
- Early Evening: 5pm-8pm
- Night-time: 8pm-9am

Figure 7 shows the percentage footfall according to the time of day in the above categories used by Springboard. Using this categorisation, there is only a 1.5% difference between the Daytime and Evening/Night-time economies, this is merely a consequence of the time periods defined in each category. The 1.5% increase is divided equally over the Evening and Night-time economy periods.

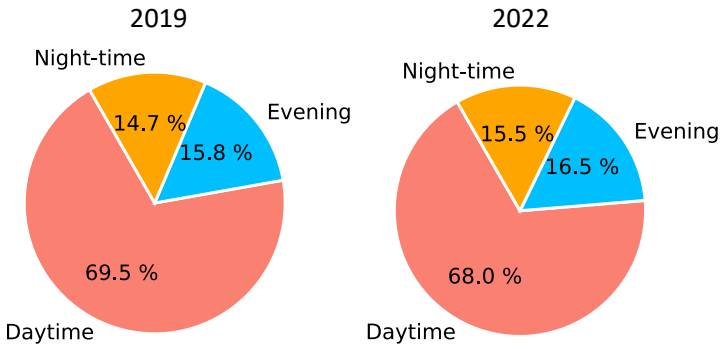

Figure 7: Daytime, early evening, and night-time economies - averages for 545 locations in 220 towns and cities in England.

2.4 Seasonal trends and key trading periods

This section looks at footfall volumes during key dates in 2019 and 2022. These are: summer holidays, Easter, Christmas trading, Black Friday, and the post-Christmas period (from Boxing Day to New Year's Eve).

Summer Holidays

August is a key month for holiday towns or towns that rely on tourism. Figure 8 compares average footfall in August for our 453 locations in 179 English towns covering the years 2019 and 2022. We have aligned the traces to match according to the day of the week. This was achieved by incorporating a few days from the end of July in 2022 to line up the days of the week. From the figure we can see that footfall for August in 2022 is 14.4% lower than that of 2019. This is surprising, given that fewer UK residents holidayed abroad in 2022 than 2019.

Nevertheless, July and August remain the busiest months of the year in 2022, as they were in 2019. Once again, the overall pattern of when people visit their high street has not changed, but the frequency of visits has reduced.

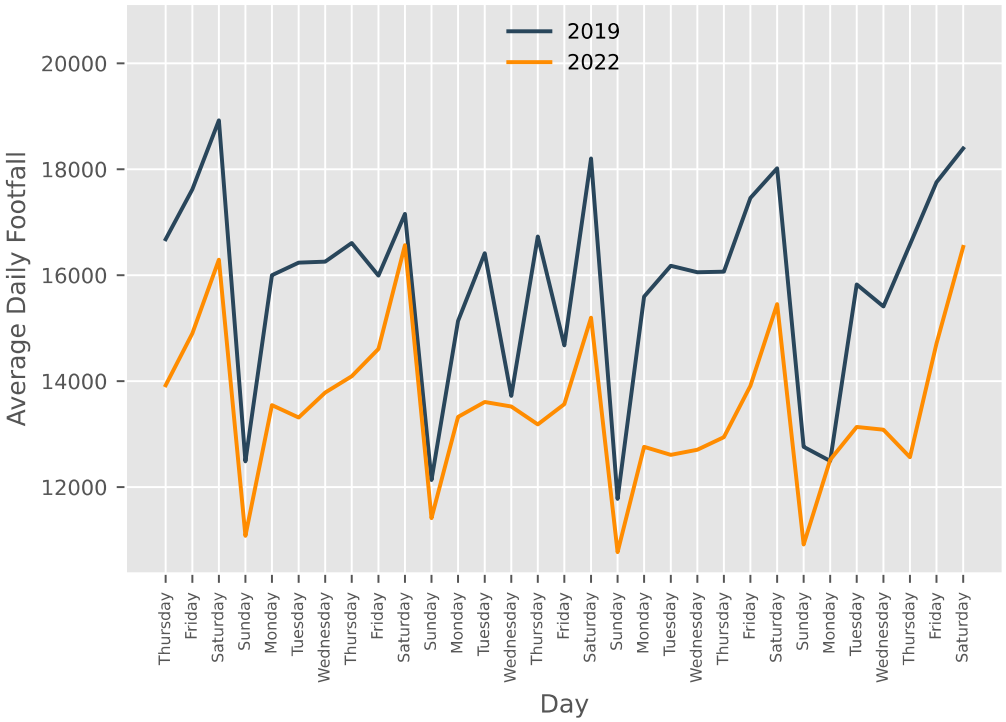

Figure 8: August for the years 2019 to 2022 with days of the week aligned.

Easter

Figure 9 compares Easter for 2019 and 2022. A similar picture emerges here also, with Easter 2022 15.5 % down in 2019.

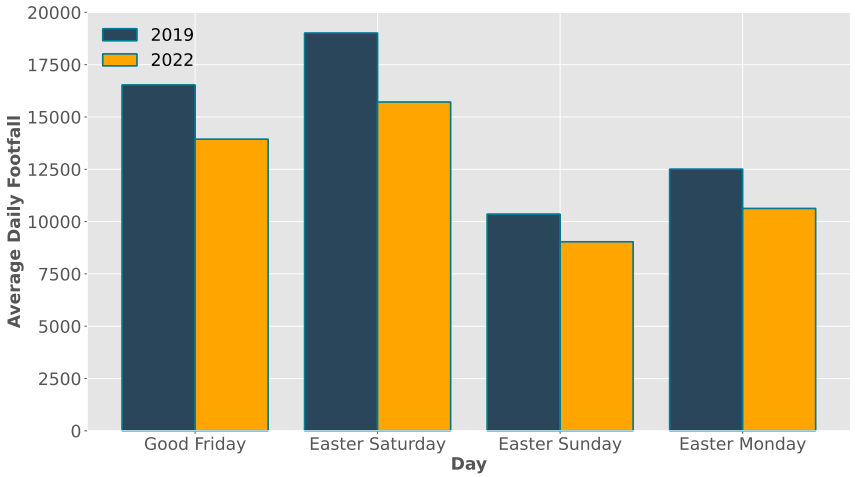

Figure 9: Comparing average daily footfall for days in Easter in 2019 with those in 2022.

Christmas Trading

Figure 10 compares footfall for the four weeks preceding Christmas for 2019 and 2022. Taking the four weeks together, the drop in footfall between 2019 and 2022 is 15.3 %. It is worth noting that Black Friday is included in figures for 2019, because it fell on 29th November. It is missing from 2022 however, because Black Friday was on 25th November, which is outside the four-week range. However, any impact is not obvious from the plots.

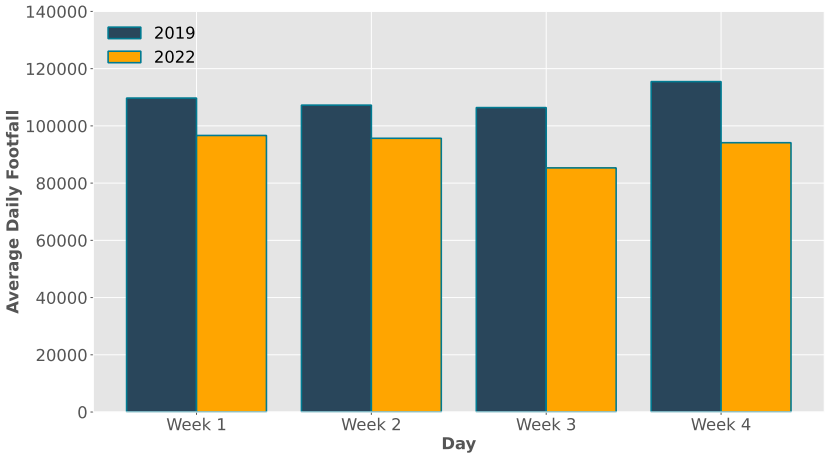

Figure 10: Average weekly totals for the four weeks before Christmas, comparing 2019 and 2022.

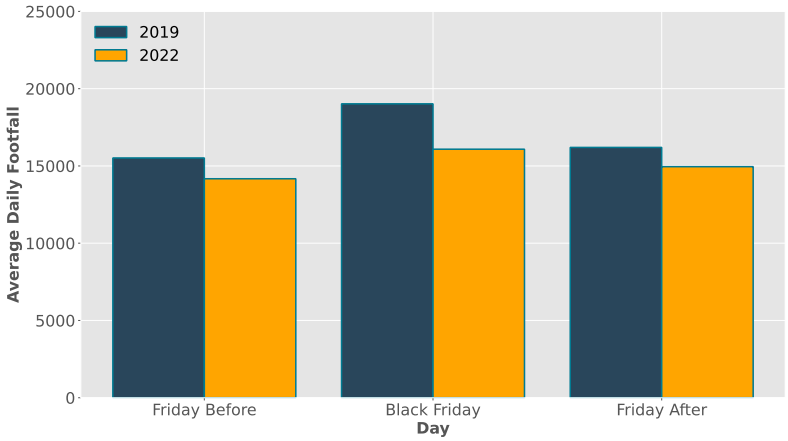

Figure 11: Average daily footfall comparing Black Friday with the Friday before and the Friday after in our 453 English locations, covering 2019 to 2022.

Black Friday

Figure 11 gives an indication of the impact (or otherwise) of Black Friday, by comparing average footfall volumes for Black Friday with the Fridays before and after. Black Friday produced a slightly greater boost to footfall in 2019 than was the case in 2022, although we do not know for certain whether it was the Black Friday sales that attracted slightly more visitors, or whether it was simply the proximity to Christmas. Black Friday in 2022 saw a drop of 15.4 % compared with 2019.

Post-Christmas Sales

Finally, in this section we will look at the post-Christmas sales period, 26th – 31st December. We can see in Figure 12 that 2022 footfall exceeds that in 2019 for 29th December but is a little lower on the other days. It is worth noting, however, that the 29th corresponded to a Sunday in 2019, but fell on a Thursday in 2022. Taken as a whole, this post-Christmas period showed a drop of 16.3 %.

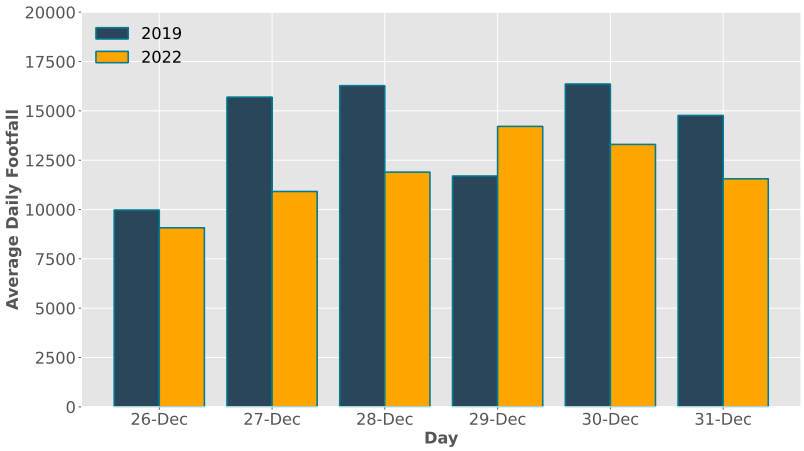

Figure 12: Footfall volumes for the immediate post-Christmas period. Once again, we have average daily footfall from our cohort of 453 locations in English towns and cities.

2.5 Section Summary

High street footfall had been in slow but steady decline for a decade or more before the onset of the COVID pandemic. Nevertheless, average monthly footfall volumes prior to 2020 formed smooth predictable patterns, allowing us to make reasonably accurate predictions for the next year or so. Clearly, COVID changed that, and we now await the time when footfall patterns settle down once more into some kind of "new normal" phase before we can resume forecasting activities, to assess whether the high street remains in long-term decline. This section is devoted to the study of totals and averages taken over the whole of England, with no distinction made for the size or nature of individual places. The study of variation between places is reserved for Sections 0 and 0.

The first part of Section 0 is devoted to producing a "business as usual" forecast for 2020, 2021 and 2022, based on the five years between 2015 and 2019. Using this forecast, we predicted a 2.4 % drop in annual footfall for 2022 on 2019 levels. However, the drop was much larger at 17 % of 2019 levels, although some ground seems to have been made up during the latter part of the year.

Next, we looked at footfall volumes for the months of the year, days of the week and hours of the day, comparing the patterns of 2022 with those of 2019. It is interesting to note the consistent way that footfall is distributed between the months of the year, the days of the week and (to a lesser extent) the hours of the day. For example, footfall was at its lowest in January and February each year, and at its highest in July and August. Of the days in the week, Saturday was the busiest day in both 2019 and 2022, and footfall for the other days of the week was distributed in similar proportions in both years, although weekend footfall seems to have recovered a little better than weekday. Observing footfall through the hours of the day, the 2022 profile is clearly a little flatter than in 2019, with activity spread slightly more evenly though the twenty-four hours. Clearly though, in all cases the volumes for 2022 reflected the 17 % overall drop in volumes mentioned above.

Finally, this section examined seasonal trends and key trading periods, comparing 2022 with 2019. Our findings revealed that Easter was 15.5 % down, August (summer holidays) 14.4 % down, pre-Christmas trading 15.3 %, Black Friday 15.4 %, and post-Christmas sales 16.3 %. All these values are better than the 17 % drop recorded for 2022, which highlights that these key trading dates are still important to high streets, post COVID-19.

3 Classifying High Streets by Activity Patterns

The previous section covered footfall volumes, focusing on "the big picture" for the whole of England. In the present section we are focusing on the variation between places and footfall patterns, rather than volumes. We begin by examining annual patterns, analysing how the distribution of footfall through the months of the year depends on place, using a clustering algorithm to establish a classification. Following this, variations in weekly patterns (according to the day of the week), and daily patterns (according to the hour of the day) are analysed in a similar fashion. Each place has its own unique set of signatures which are obtained by averaging footfall volumes over the months of the year, the days of the week, and the hours of the day, usually for a period of a year or more. The signatures help us discover how towns are used by their residents and visitors. The annual, weekly, and daily footfall signatures are dealt with in separate subsections, each beginning with a brief description of the methodology and pre-COVID classifications, and then we look at how the situation changed in 2022, the first full year that has been relatively free of COVID restrictions. We refer the reader to our previous reports that cover 2020 and 2021, the periods most impacted by COVID.

3.1 Annual Signatures

Over the years we have observed distinct shapes characterising how footfall varies according to the months of the year. Based on a *K*-Means clustering analysis carried out on 10 years of footfall data from Springboard up to and including 2016 across 125 UK retail centres, research has discovered four distinct 'footfall centroids' representing the centres of four clusters in our analysis. Each town and city in our study being classified according to the centroid that their annual footfall pattern (or signature) most closely resembled.[3] We have named the clusters to reflect their profile: comparison, holiday, multifunctional and speciality (Figure 13). For this analysis, we compute an average value for monthly footfall for each town or city individually. Many centres have more than one counter location, however, and in such cases, we take an average over all counters located within a particular town or city, covering all the full years for which footfall had been collected for each counter location, omitting any counter that had been operational for less than two years. We now give key features of each of the four town types.

[3] Mumford, C., Parker, C., Ntounis, N., & Dargan, E. (2020). Footfall signatures and volumes: Towards a classification of UK centres. Environment and Planning B: Urban Analytics and City Science. https://doi.org/10.1177/2399808320911412

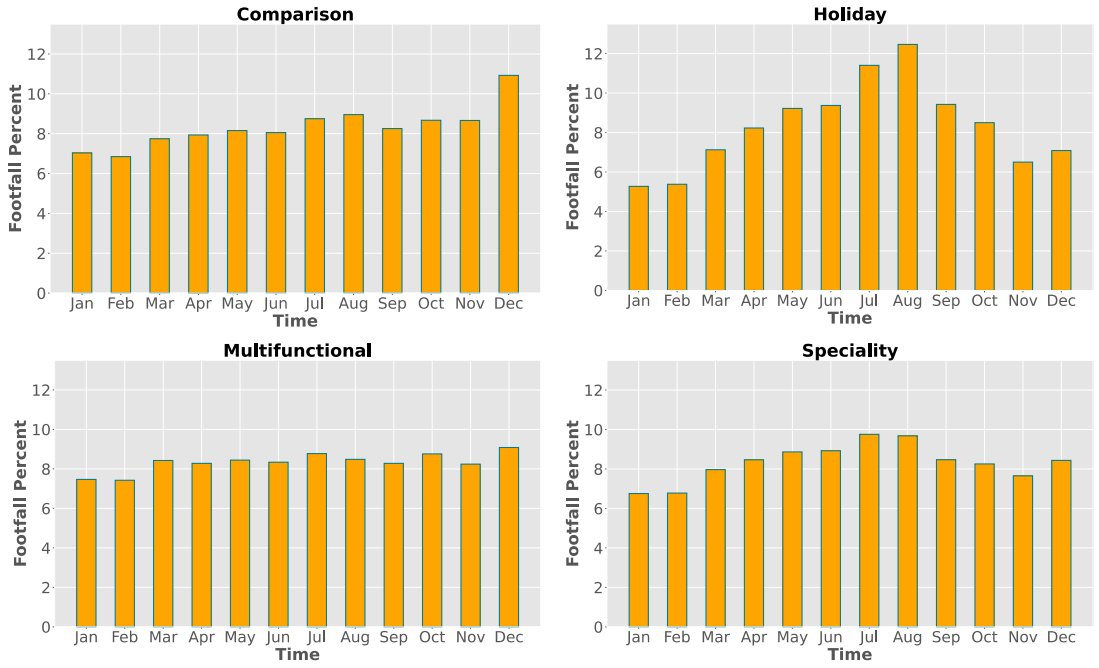

Figure 13: Annual Centroids for the UK from 10 years of data: 2006 – 2016.

3.1.1 Comparison Towns

Comparison towns are the more traditional shopping centres, typically located in larger town and city centres, that are also important employment and educational centres. They are characterised by a footfall peak in November and December, coinciding with the Christmas preparation period. During the run up to Christmas people come to these places predominantly to shop and may travel a considerable distance to visit. These towns have a wide range of retail choice, leisure, food, and beverage, as well as strong retail anchor(s) and presence of multiples and international brands (e.g., Manchester).

3.1.2 Holiday Towns

Holiday towns are visited mainly by tourists for a holiday or a 'day out'. They do not ordinarily concentrate on serving the local catchment, instead focusing on providing entertainment and leisure. They are busiest in the summer and when the weather is good and people will travel a considerable distance to visit. They are attractive to tourists but have a relatively weak comparison offer (e.g., Blackpool).

3.1.3 Multifunctional Towns

Multifunctional towns are a diverse group, coming in many shapes and sizes, and serve a variety of everyday needs, such as convenience shopping, leisure, and employment. They are characterised by a relatively flat footfall profile throughout the months of the year. The volumes of footfall are indicative of the catchment areas these people are drawn from, so large multifunctional centres (cities such as Sheffield) are drawing people from a wider area than the small multifunctional centres (towns or districts), that are serving a local catchment (e.g., Withington in Manchester).

3.1.4 Speciality Towns

Speciality towns attract tourists but also serve the local population. Like holiday towns they are busiest in the summer months, but also show a (smaller) second footfall peak in December, indicating a 'hybrid' type between holiday and comparison towns. These towns tend to have anchors that are not linked to retail, and offer something unique and special, promoting a strong town identity (e.g., Windsor).

We have since adopted these four patterns, illustrated in Figure 13, as templates for classifying town types in subsequent years. In this way we can discover how places change over the years in relation to these benchmarks. In 2020 and 2021 footfall patterns were seriously disrupted by lockdowns and other COVID restrictions, so we carried out new clustering studies and used these to help analyse the varying levels of 'COVID resilience' in English towns and cities. Given that the devolved nations imposed COVID restrictions at different times, we based our clustering studies on English towns and cities only to derive our centroids for 2020 and 2021. Once again, we refer the reader to our previous reports to see our analyses during the COVID pandemic. In the present report we are focusing on how post-COVID footfall compares to pre-COVID footfall. In previous sections we examined the volumes of footfall, but in this section, we are more interested in how footfall is distributed differently through the months, depending on the type of place.

To begin our study of post-COVID annual signatures, we re-computed *K*-Means on 2022 data only and obtained the centroids for $K = 4$. The analysis is based on 309 towns, cities, and districts throughout the UK. We are reverting to using footfall data for the whole of the UK now that we are free of the COVID restrictions that were affecting the devolved nations differently, given that using more data can give more accurate results. The centroids for 2022 are shown in Figure 14. These patterns are not dissimilar to our pre-pandemic centroids (Figure 13).

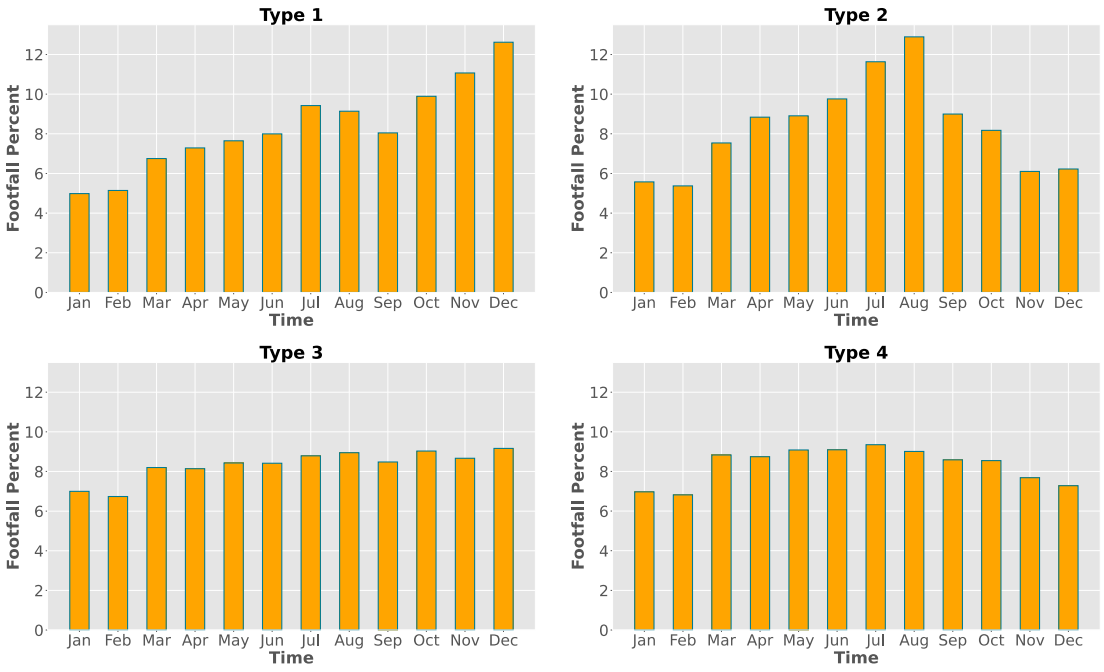

Figure 14: **K**-Means centroids for 2022.

Comparing the new 2022 centroids in Figure 14 with the town-type benchmarks in Figure 13, we have matched the positions of the new centroids with the corresponding 2016 benchmark that it most closely resembles, so that type 1 in the top left of Figure 14 matches comparison in Figure 13, type 2 in the top right of Figure 14 matches holiday, and so on. Table 1 gives the percentage differences between the 2022 centroids and the 2016 benchmarks, with the second column listing the town-type that the new centroid most resembles.

Table 1: Percentage differences between 2022 annual centroids and 2016 town-type benchmarks. The values of most interest are highlighted.

2022 Centroid	Closest Match to 2016 centroids	Percentage difference of 2022 centroids with 2016 centroids			
		Comparison	Holiday	Multifunctional	Speciality
Type 1	**Comparison**	**4.41**	8.70	6.21	6.59
Type 2	**Holiday**	7.87	**1.52**	7.23	5.08
Type 3	**Multifunctional**	**1.94**	6.07	**1.13**	2.07
Type 4	**Speciality**	4.30	5.15	2.50	**1.73**

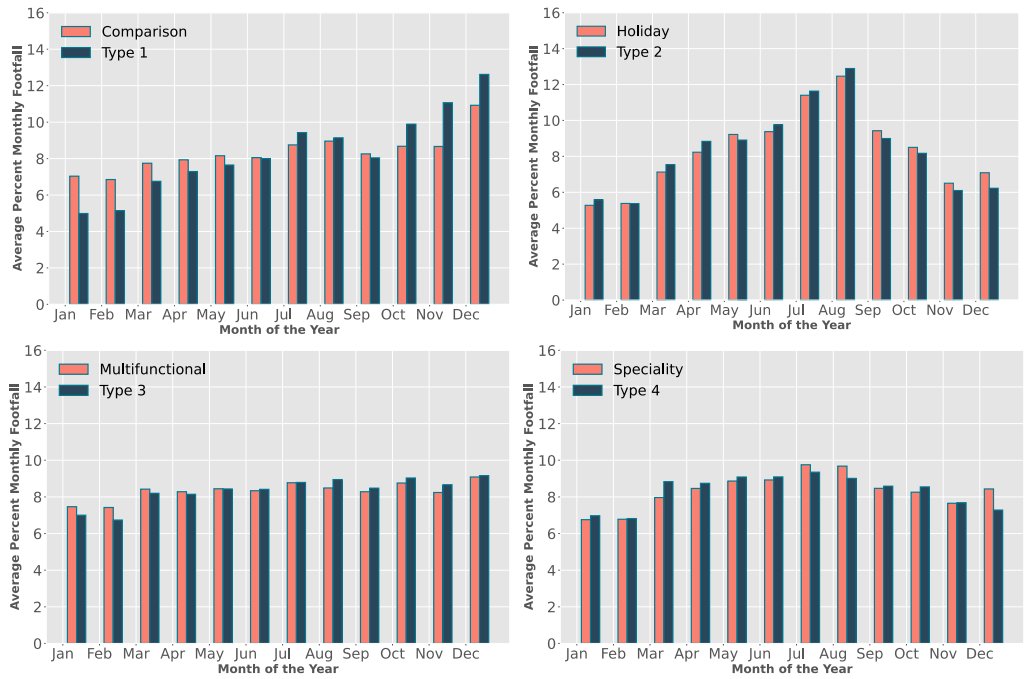

Figure 15: 2022 centroids compared to their closest 2016 benchmark match.

We can observe that the following matches are quite close: type 2 with holiday, type 3 with multifunctional, and type 4 with speciality. Type 1, on the other hand does not appear to match any of the four types very closely, with its closest match (comparison) showing a much larger difference percentage than the other 3 types. In fact, type 3 is much closer to the comparison benchmark than type 1 (1.94% compared to 4.41 %), although multifunctional is a better match from type 3 at 1.13%. The 2022 centroids are plotted with their closest 2016 benchmark match in Figure 15**. The similarity between the 2022 and 2019 centroids strongly suggests that there has been no fundamental 'disruption' to town centre functions as a result of the pandemic.** We still have four centroids in 2022 that display very similar profiles to those in 2019. Therefore, we will continue to use the four 2016 benchmarks for town-type classification for the foreseeable future, because they are based on several years of relatively stable data, and are still relevant to 2022, our most recent year of footfall data. However, for readers that are interested, in Appendix A we show the town-type classifications of towns, cities and districts in England since 2014, including two separate classifications for 2022 footfall data: using 2016 benchmarks and 2022 centroids. Nonetheless, we will not be replacing our 2016 benchmarks for the time being. The number of towns in each type are shown in Table 2, using 2016 benchmarks are shown for both 2022, 2014-2016, and 2017-1019.

.

Table 2: Classification of English towns and cities with Springboard Data since over recent years.

Annual signature	2014 – 2016		2017 – 2019		2022	
	Number of towns	Percent of towns	Number of towns	Percent of towns	Number of towns	Percent of towns
Comparison	25	21.6	18	9.9	34	13.4
Holiday	10	8.6	11	6	15	5.9
Multifunctional	54	46.5	97	53.4	110	43.3
Speciality	27	23.3	56	30.8	95	37.4
Summary	Total = 116	Total = 100	Total: 182	Total = 100	Total=254	Total = 100

We will now take an analytical look at the data in Appendix A, to discover overall patterns and trends in town type classification between 2014 and the present. To carry out this analysis we rely on data from just 116 English towns and cities, because many of the 255 places we used for the previous analysis on 2022 data have had their Springboard counters installed more recently than 2014. Table 3 follows 116 English towns and cities extracted from Appendix A through the years showing how the number of places classified in the four categories have changed. We note a clear decline in comparison towns, and a distinct rise in speciality towns. The changes in frequency are significant at the $p = 0.05$ level in a χ^2 test.

Table 3: Classification of a cohort of 116 towns and cities since over recent years.

Annual signature	2014 – 2016			2017 – 2019			2022		
	Number of towns	Percent of towns	Average annual footfall	Number of towns	Percent of towns	Average annual footfall	Number of towns	Percent of towns	Average annual footfall
Comparison	25	21.6	9536457	12	10.3	10614936	11	9.5	12712548
Holiday	10	8.6	5768213	9	7.8	4383642	12	10.3	8357921
Multifunctional	54	46.5	8858372	54	46.6	9073160	48	41.4	5462580
Speciality	27	23.3	10513179	41	35.3	8710786	45	38.8	7054982
Summary	Total = 116	Total = 100	Overall Average = 9295951	Total = 116	Total = 100	Overall Average = 8875778	Total = 116	Total = 100	Overall Average = 7112430

Table 3 also shows the average annual footfall for each town type and includes an overall average in the summary row at the bottom of the table, computed from the raw footfall volumes for each town and city. However, we should remind the reader that the computation of footfall volumes for an individual place over a period of several years requires the same counter to be in the same (busiest) location for the entire duration. On the other hand, the classification of town types is less prescriptive, and we can compute a signature for a town by averaging patterns over whatever counters are present, even if they are not consistent over the whole time period. For example, if the busiest counter in a place ceases operation part way through the period under consideration, we will be unable to compute changes in annual footfall volume for that place, even though it may still be possible to compute a town type classification, provided at least one counter is operational somewhere in the town or city. Although we have 116 towns and cities upon which to base our town type classification, we have just a mere 72 English towns and cities to compute the footfall volume over the given years.

The annual footfall averages in Table 3 show an overall downward trajectory, although holiday towns have apparently almost doubled their numbers of visitors, and comparison towns seem to have done better recently. We should interpret these figures with caution, however. Investigating

further, we discover that it is the new joiners to the holiday classification that are entirely responsible for the apparent change in fortune, with a busy location in London surprisingly joining their ranks, imposing a particularly strong bias.

Investigating the comparison towns, we found that the slight apparent increase in footfall was due to a combination of gaining larger, busier places as new joiners and losing smaller less busy places from the classification. All the towns and cities classified as comparison in 2022, except for one (Norwich) experienced a distinct decrease in footfall between 2017 – 2019.

Table 4: Changes in town type classification between 2016 and 2022 (as shown in bold italics).

2014 - 2016		Same towns in 2022			
Annual signature	Number of towns	Number of towns Comparison	Number of towns Holiday	Number of towns Multifunctional	Number of towns Speciality
Comparison	25	4	0	***11***	***10***
Holiday	10	0	9	0	***1***
Multifunctional	54	***5***	0	32	***17***
Speciality	27	***2***	***3***	*5*	17
Totals	116	11	12	48	45

Table 4 shows how individual towns and cities have changed their town type categories between the years of 2014 – 2016 and 2022. For example, in the first row we can observe that only 4 of the 25 comparison towns retained this identity in 2022, with 11 becoming multifunctional towns and 10 speciality towns. Most holiday towns, on the other hand, have remained holiday towns. Many multifunctional towns have changed to speciality, and a few have become comparison, but the largest fraction has remained multifunctional. Speciality towns have mostly stayed the same.

3.2 Weekly Signatures

In addition to annual signatures, Mumford and others have examined footfall profiles for days of the week and discovered two distinct patterns in these, as we can see below in Figure 16 and Figure 17, for the years 2019 and 2022, respectively.[4] As with the annual analysis, *K*-Means clustering was applied to towns and cities throughout the UK, taking averages when there is more than one counter in a town or city. The patterns are very similar for the two years as can be observed, although the centroid for "Monday Through Saturday Steady" peaks on Saturday in 2019, and Friday in 2022. Figure 18 compares the 2019 and 2022 weekly centroids side-by-side, clearly illustrating the Saturday peak growing a little larger in type the 'Saturday Peak' and shrinking slightly in the 'Monday Through Saturday Steady' category.

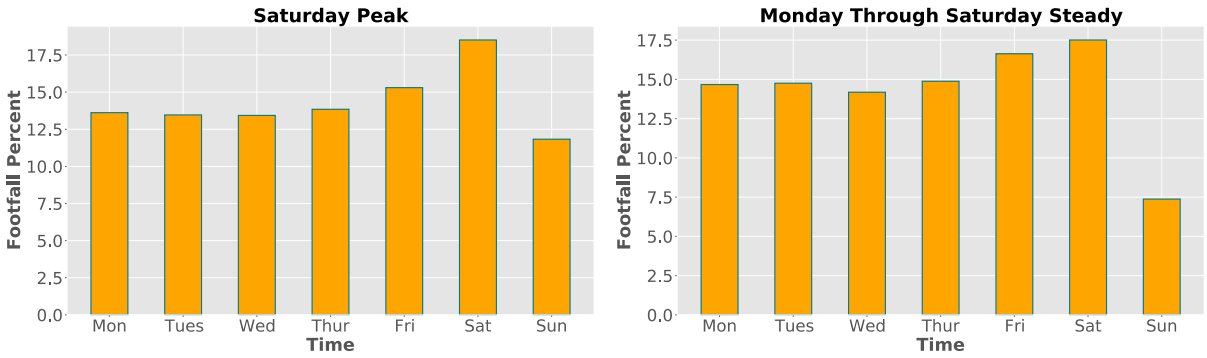

Figure 16: Weekly Centroids for the UK in 2019, derived from 221 towns and cities throughout the UK.

[4] Mumford, C., Parker, C., Ntounis, N., & Dargan, E. (2017). A clustering study to verify four distinct monthly footfall signatures: a classification for UK retail centres. High Streets Task Force: https://www.highstreetstaskforce.org.uk/resources/details/?id=48817d11-8d42-480b-bf58-f7558d4ea5e5

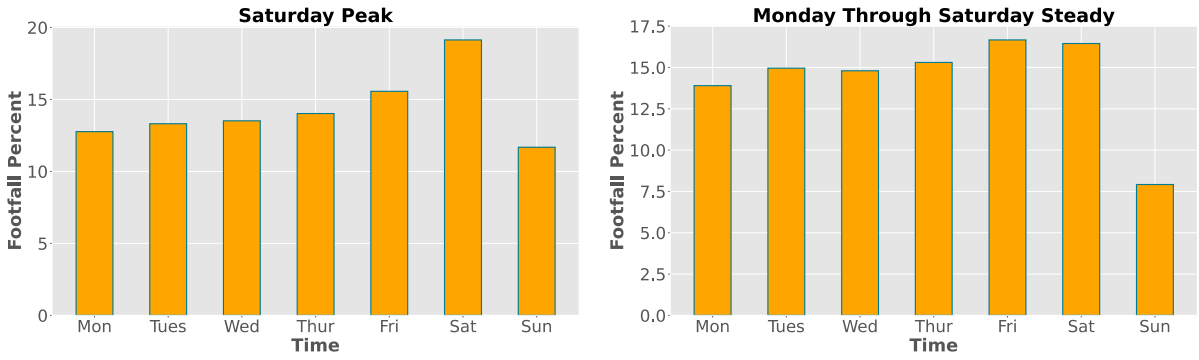

Figure 17: Weekly Centroids for the UK in 2022, derived from 314 towns and cities throughout the UK.

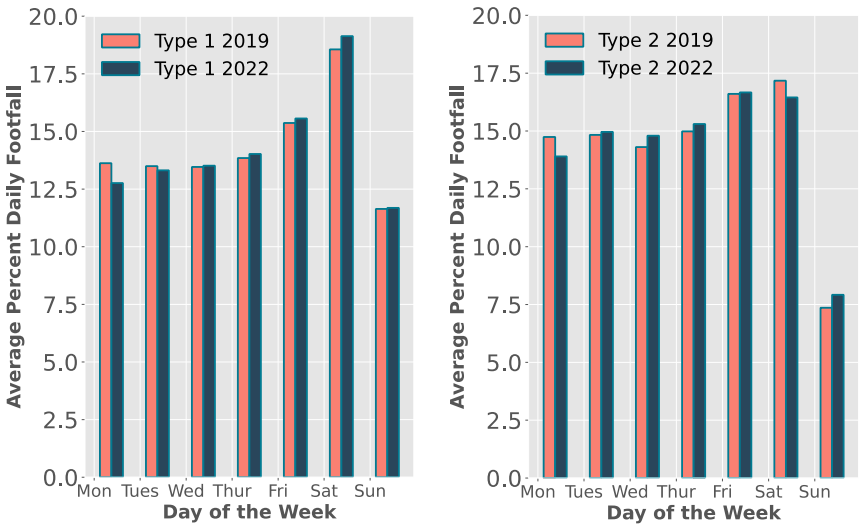

Figure 18: Comparison of 2019 with 2022 weekly centroids for the UK. Type 1 = "Saturday Peak", Type 2 = Monday Through Saturday Steady".

We will use the 2022 centroids for our classification of English towns and cities for weekly and daily patterns. It is worth pointing out that for the computation of annual 2022 centroids covered in the previous section, there is only one datapoint per town or city for each month, whilst for weekly patterns there are about 52 occurrences of each day of the week throughout 2022, and even more data points per hour of the day. However, it is important to ensure that the same centroids are used if comparing classifications across more than one year. Below we outline the main features of the two types of centroids.

3.2.1 Saturday Peak

Saturday peak type towns show a large peak on Saturday followed by a reasonably busy Sunday. Saturday peak types tend to be larger locations used for weekend shopping (e.g., Manchester).

3.2.2 Monday Through Friday Steady

Monday through Friday steady types show steady footfall from Monday to Friday with a slight peak on Saturday, followed by a large drop on Sunday. These tend to be less visited at the weekend (e.g., Morley).

Table 5 presents the number and percentage of 183 English towns and cities classified according to which of the weekly centroid each most closely represents, comparing 2022 with 2019, and including average annual footfall for each category. Once again, the average annual footfall is computed from the counter in the busiest location for each place. As we can see, places classified as 'Saturday peak' tend to be about twice a busy as those classified as 'Monday through Saturday steady', although rather counter-intuitively with footfall dropping across the board, the number of towns categorised as 'Saturday Peak' (typical of the busier places) has increased.

Table 5: Classification of 183 English towns and cities according to their weekly signatures.

Weekly signature	2019			2022		
	Number of towns	% of towns	Mean Annual footfall	Number of towns	% of towns	Mean Annual footfall
Saturday peak	106	57.9 %	7757489	125	68.3 %	6634805
Monday Through Saturday Steady	77	42.1 %	4618999	58	31.7 %	3397498

Table 6: Showing how towns have changed their classification between 2029 and 2022 (as illustrated in bold italics).

Weekly signature	2019	Same town in 2022	
	Number of towns	Number of towns: Saturday Peak	Number of towns: Monday Through Saturday Steady
Saturday Peak	106	103	***3***
Monday Through Saturday Steady	77	***22***	55
Totals	183	125	58

Table 6 shows that 22 towns have moved from 'Monday Through Saturday Steady' to 'Saturday Peak' between 2019 and 2022, yet only 3 towns have moved in the opposite direction. This clearly indicates that people are visiting towns proportionally more at weekends and less during weekdays. This corroborates our findings in Section 0, particularly Figure 5 which shows that footfall volumes fall less at weekend than on weekdays.

3.3 Daily Signatures

There are two daily footfall centroids that classify centres based on their activity levels throughout the hours of the day: *All day economy* towns and *midday economy* towns. Figure 19 and Figure 20 display the centroids obtained using *K*-Means clustering for the hours of the day using 2019 and 2022 data, respectively. Figure 21 directly compares the centroids for 2019 with those for 2022. We can observe that the profiles are broadly similar, but slightly flatter (or more spread out) in 2022, with a double peak appearing in 2022 on the 'All Day Economy' profile at 1pm and 3pm. The main characteristics of the two daily town types are outlined below.

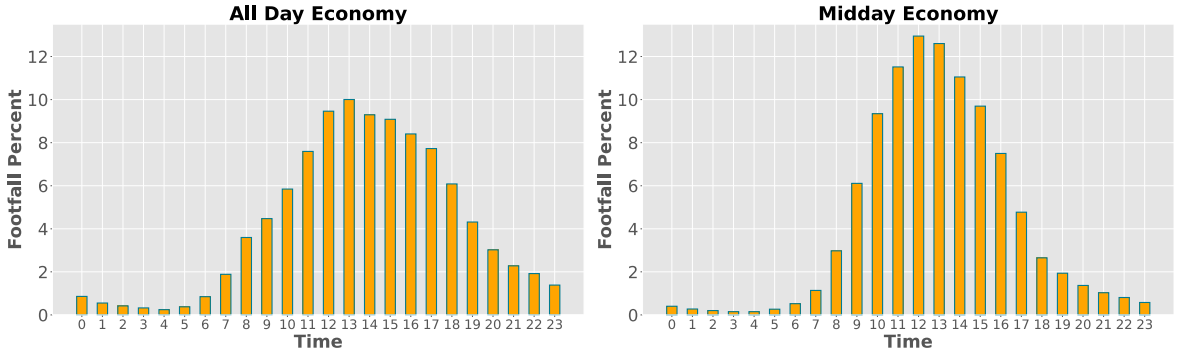

Figure 19: Daily Centroids for the UK in 2019. .

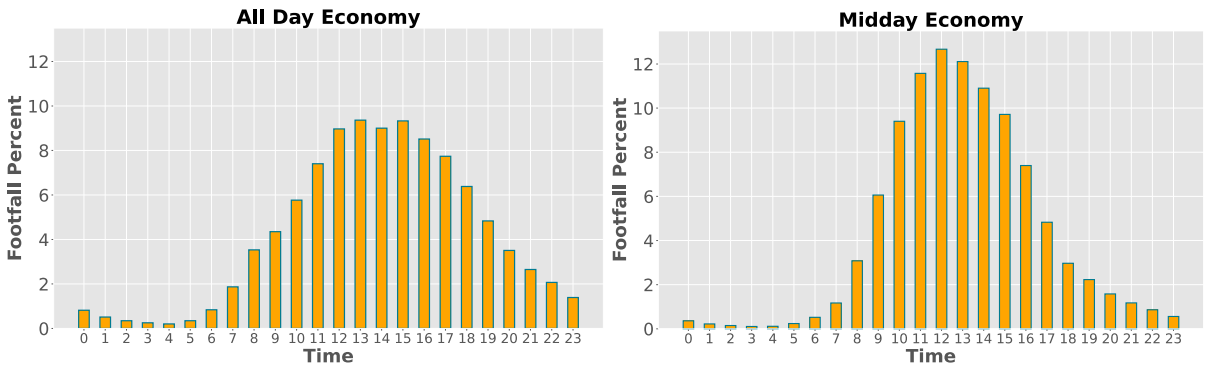

Figure 20: Daily Centroids for the UK 2022.

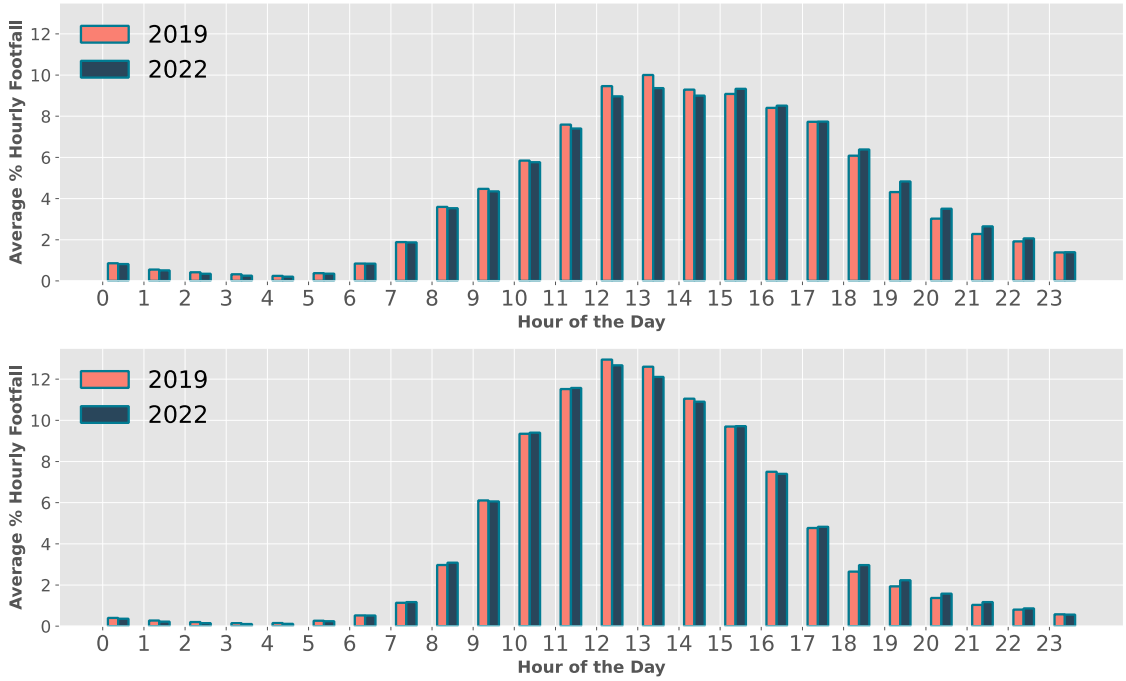

Figure 21: Daily Centroids for 2019 and 2022: All day economy (top), Midday economy (bottom).

3.3.1 All Day Economy

All day economy type towns have typically shown a peak in footfall at 1 pm with a slow dropping away in the afternoon, and a reasonable footfall level continued into the evening/night-time (e.g., Liverpool). In 2022, however, we can observe two peaks at 1 pm and 3 pm, as mentioned above.

3.3.2 Midday Economy

Midday economy towns tend to show a sharper and slightly earlier peak in footfall at 12 pm, and footfall then trails off much more quickly into the afternoon and evening. Towns showing a midday economy tend to have less footfall than larger cities (e.g., Royal Leamington Spa).

Table 7 gives the number of towns and cities in each category and the average annual footfall for each classification for 2019 and 2022. The classification for each of the two years was carried out using 2022 centroids. Places which identified with an 'all day economy' are marginally busier overall, and there is a small rise in their number in 2022. Table 8 shows the changes in classification between 2019 and 2022.

Daily signature	2019			2022		
	Number of towns	% of towns	Mean Annual footfall	Number of towns	% of towns	Mean Annual footfall
All Day Economy	65	35.5 %	8968500	71	38.8 %	5148534
Midday Economy	118	64.5 %	7643526	112	61.2 %	4129881

Table 7: Showing how daily town types in 2019 have changed in 2022 (shown in bold italics).

Daily signature	2019	Same town in 2022	
	Number of towns	Number of towns: All Day Economy	Number of towns: Midday Economy
All Day Economy	65	61	***4***
Midday Economy	118	***10***	108
Totals	183	71	112

Table 8 Showing change in classification between 2019 and 2022.

3.4 Section Summary

Section 0 was mainly concerned with footfall volumes, looking at England as a whole, observing the overall picture following COVID. Section 3 focused more on the variation between places. First, we examined town types, which are identified primarily by their annual footfall patterns into four categories: comparison (traditional shopping centres), holiday (typically coastal towns busiest in the summer), multifunctional (a mixed bag with relatively flat annual footfall profile), and speciality (attracting tourists and shoppers). Each town is allocated to the category whose architype its annual footfall profile most closely resembles, the architypes (or benchmarks) being established a few years ago using the *K*-Means clustering algorithm on 10 years of historical data. We recomputed the

architypes using 2022 data only and found close resemblance to the originals. However, the originals were retained for our main town type classification exercises.

To put any post-COVID changes into context, we observed changes in town type classification over time between 2014 and 2019. We noted that the number of comparison towns fell sharply between 2014 and 2019, whilst speciality towns doubled in numbers. On the other hand, multifunctional towns remained steady and holiday towns decreased slightly. Moving on to 2022, we can see a slight increase in holiday and speciality towns, and a slight decrease in comparison and multifunctional towns. We have shown that typical footfall volumes for the four different town types vary according to the balance of large and small places belonging to each category, with the overall trend being downwards for all town types. Alongside this, many towns change their classification categories over time.

In addition to annual footfall patterns, we also observed differences between places in footfall according to the day of the week or the hour of the day. Using *K*-Means clustering, separately on data from 2019 and 2022, two main categories (centroids) were discovered in each case: 'Saturday peak' and 'Monday through Saturday steady' for the weekly signatures and 'all day' and 'mid-day' economies for the daily signatures. Looking first at the weekly classification, 'Saturday peak' characterised the larger and busier towns, and 'Monday through Saturday Steady' represented mainly smaller less busy places. Nevertheless, the centroid pairs for 2019 and 2022 showed minor differences. The peak in 'Saturday Peak' grows a little higher in 2022, while Saturday footfall in "Monday Through Saturday Steady" shrinks in proportion to the rest of the week, producing a new peak on Friday. We used the 2022 centroids to classify the individual towns and cities according to which of the two centroids their weekly patterns most closely resembled: 'Saturday Peak' or 'Monday Through Saturday Steady', comparing the classification of 2022 with that of 2019. We discovered a rise in the number of towns classified as 'Saturday Peak' at the expense of the 'Monday through Saturday steady' class.

Looking at daily patterns, we again noted two key architypes, derived by our *K*-Means clustering analysis: "all day" and "mid-day" economies. All day economies were typically larger and busier towns and cities, whilst mid-day economies tended to be smaller places. Computing the centroids separately for 2019 and 2022 yielded similar pairs of patterns for each year, although as we found with the weekly centroids, the distributions were slightly flatter in 2022 than was the case for 2019, with the 'All Day Economy' presenting with two peaks at 1 pm and 3 pm in 2022, instead of the single peak at 1 pm in 2019. Only a few places changed their classification between 2019 and 2022. The way places are used during the hours of the day seem to be more stable than the days of the week or the months of the year.

4 Footfall and town size

Local planning authorities designate their town and city centres using a retail hierarchy. This consists of major city, regional centre, sub-regional centre, major town, town, and district. Recent research, however, shows some large overlaps when it comes to footfall volumes across neighbouring classifications (for example, between regional and sub-regional centres). Mumford and others suggest that this may not be the most suitable classification when dealing with place attractiveness and planning decisions.[5]

A simplified (reduced) hierarchy based on footfall levels, that is, an activity hierarchy, might be more useful for planners and decision makers, especially as retail is losing its dominance as an anchor for visitation. In this report we have adopted the activity hierarchy suggested in Mumford et al. (2020), which classifies centres into: major city, regional centre, town, and district by effectively merging regional centres with sub-regional centres and major towns with towns, to form the combined designations of regional centre and town, respectively. The present section is devoted to the study of how footfall varies according to the level in the retail and activity hierarchies.

4.1 Footfall volumes and the retail and activity hierarchies

Figure 22 shows the mean annual footfall values and error bars (standard deviation) for the different hierarchical classifications of 213 town and city centres across the UK, comparing 2022 footfall levels with those of 2019. The top image uses the UK planning hierarchy and the bottom image the activity (reduced) hierarchy. The average percentage change in footfall between the two years is indicated next to each pair of error bars in each diagram, and the number of places in each category is recorded on the *y* axis following class designation. Of particular note is the huge range of footfall levels observed for major cities. The large degree of overlap in the planning categories shown in the top diagram provides our justification for simplifying the planning classification. Nevertheless, considerable overlap remains even in the activity hierarchy and some reconsideration of the class boundaries will be a useful exercise, to better reflect the reality of how our towns and cities are used. Clearly, footfall in 2022 is down on the pre-pandemic 2019, but much improved over the pandemic years of 2020 and 2021, as seen from the previous annual footfall reviews.

We also find that smaller places tend to have recovered rather better than the larger urban areas, particularly the districts. This trend, which we also detected during the pandemic, is likely to be the result of changes in working practices with substantial numbers of people still working from home at least part of the week, visiting their local centres for their supplies, instead of large town and city centres where most offices are based.

[5]Mumford, C., Parker, C., Ntounis, N., & Dargan, E. (2020). Footfall signatures and volumes: Towards a classification of UK centres. Environment and Planning B: Urban Analytics and City Science. https://doi.org/10.1177/2399808320911412

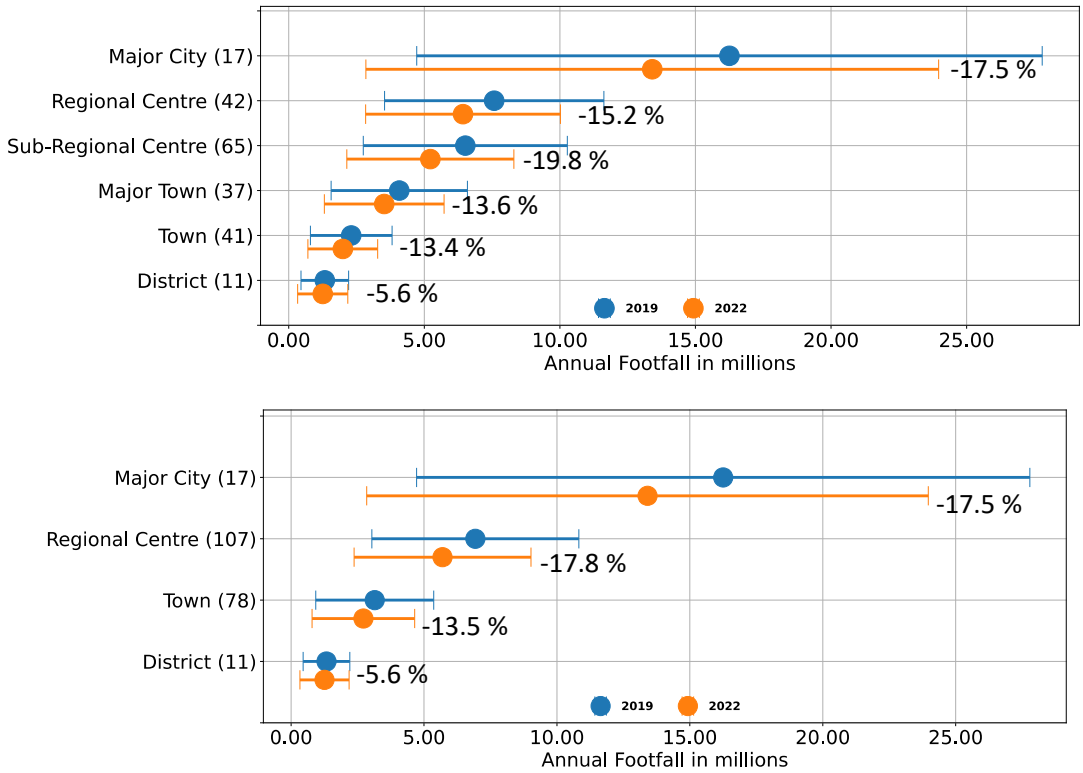

Figure 22:Annual footfall for UK towns and cities in 2019 and 2022 (Springboard) showing means (circles) and standard deviation ranges (error bars) for the UK planning hierarchy (top) and a reduced retail hierarchy (bottom), and the number of places in each category.

4.2 Section Summary

In this section we looked at places of different sizes and how footfall volumes vary between them. We used the retail hierarchy devised for UK planning, which splits towns and cities into six categories: major city, regional centre, sub-regional centre, major town, town and district. We visualised the footfall levels for each category using error bars, noting the large overlaps between the categories (Figure 22 top). Of particular note, is the enormous range of footfall volumes observed for major cities, in comparison with the ranges for other classes. A clearer picture emerges when we combine some of the classes to form what we have called an activity hierarchy: major city, regional centre, town and district (Figure 22 bottom). Finally, comparing 2022 with 2019, we noted a smaller percentage reduction in footfall volumes for smaller places compared with larger places, with districts apparently showing the greatest resilience.

Appendix A

Classification of Annual Signatures for English Towns

Retail Centre	Signature Type			
	2014 - 2016	2017 – 2019	2022: 2016 Benchmarks	2022: New Centroids
Alfreton	-	-	Multifunctional	3
Altrincham	Multifunctional	Multifunctional	Multifunctional	3
Ashford	Multifunctional	Multifunctional	Speciality	3
Aylesbury	-	Multifunctional	-	-
Barnsley	Comparison	Multifunctional	Speciality	4
Barnstaple	Comparison	Speciality	Speciality	4
Barrow in Furness	-	-	Speciality	4
Basingstoke	Multifunctional	Multifunctional	Multifunctional	3
Bath	-	Comparison	Comparison	3
Battersea	-	-	Comparison	1
Bedford	Multifunctional	Multifunctional	Speciality	4
Bedminster	-	-	Multifunctional	3
Beeston	Multifunctional	Multifunctional	Multifunctional	3
Belper	-	-	Multifunctional	3
Berkhamsted	-	Multifunctional	Comparison	3
Bexleyheath	Multifunctional	Multifunctional	Multifunctional	3

Birmingham	-	-	Comparison	3
Bishops Cleeve	-	-	Multifunctional	3
Blackburn	-	Multifunctional	Multifunctional	4
Blackpool	Holiday	Holiday	Holiday	2
Bognor Regis	Speciality	Speciality	Speciality	4
Bournemouth	Holiday	Speciality	Speciality	2
Bradford	-	Multifunctional	Multifunctional	3
Braintree	-	Multifunctional	Multifunctional	3
Bramhall	-	-	Multifunctional	3
Brentford	Multifunctional	Speciality	Multifunctional	3

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Brentwood	-	-	Comparison	3
Brierley Hill	-	Multifunctional	Multifunctional	3
Brighouse	-	Multifunctional	Comparison	1
Brighton	-	Speciality	Speciality	4
Bristol	Comparison	Comparison	Comparison	3
Brixton	Speciality	Speciality	Speciality	4
Bromley	Comparison	Comparison	Speciality	4

Broughton	-	-	Multifunctional	4
Burnham on Sea	-	Holiday	Holiday	2
Bury	-	-	Multifunctional	4
Bury St Edmunds	Speciality	Speciality	Speciality	4
Buxton	-	-	Speciality	4
Cambridge	Multifunctional	Multifunctional	Speciality	4
Camden	Multifunctional	Speciality	Speciality	4
Canterbury	-	Multifunctional	Speciality	3
Carlisle	-	-	Comparison	3
Chatham	-	-	Multifunctional	4
Cheadle	-	-	Multifunctional	3
Cheadle Hulme	-	-	Multifunctional	4
Chelmsford	-	Multifunctional	Multifunctional	4
Cheltenham	-	Comparison	Comparison	3
Chichester	Speciality	Speciality	Speciality	3
Chiswick	-	-	Multifunctional	3
Chorlton	-	Multifunctional	Multifunctional	4
Clacton On Sea	Speciality	Speciality	Speciality	3
Cleethorpes	Holiday	Speciality	Holiday	2

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 – 2019	2022: 2016 Benchmarks	2022: New Centroids
Colchester	-	Multifunctional	Comparison	3
Congleton	-	Speciality	Speciality	3
Cosham	Multifunctional	Multifunctional	Multifunctional	3
Covent Garden	Speciality	Speciality	Comparison	3
Cranleigh	-	-	Comparison	3
Croyden	Multifunctional	Speciality	Multifunctional	3
Cudworth	-	-	Multifunctional	3
Darlington	-	Multifunctional	Speciality	4
Dartford	Speciality	Holiday	Speciality	4
Dartmouth	Holiday	Holiday	Holiday	2
Derby	Multifunctional	Speciality	Multifunctional	3
Dewsbury	-	-	Multifunctional	4
Doncaster	-	Multifunctional	Multifunctional	3
Dover	-	Speciality	Speciality	4
Dudley	-	Multifunctional	Speciality	3
Durham	Multifunctional	Multifunctional	Multifunctional	3
Ealing	Multifunctional	Speciality	Speciality	4
Eastleigh	Multifunctional	Speciality	Speciality	3
Eccles	-	-	Speciality	4

Eccles Barton	-	-	Speciality	4
Edgeley	-	-	Speciality	4
Eltham	Multifunctional	Multifunctional	Multifunctional	3
Exeter	Comparison	Multifunctional	Multifunctional	3
Fallowfield	-	Multifunctional	Speciality	4
Farnham	-	-	Multifunctional	3
Feltham	-	-	Multifunctional	4
Fitzrovia	Multifunctional	Multifunctional	Multifunctional	3

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Floral Court	-	-	Comparison	1
Future Wood Green	-	-	Speciality	4
Gloucester	Comparison	Comparison	Speciality	3
Godalming	-	-	Multifunctional	3
Goldthorpe	-	-	Speciality	4
Gorton	-	Multifunctional	Speciality	4
Gravesend	Multifunctional	Multifunctional	Speciality	4
Great Yarmouth	Holiday	Holiday	Holiday	2
Greenwich	Speciality	Speciality	Multifunctional	4

Grimsby	Speciality	Speciality	Speciality	3
Guildford	Multifunctional	Multifunctional	Speciality	4
Guisborough	Multifunctional	Multifunctional	Multifunctional	3
Halesowen	-	Multifunctional	Multifunctional	4
Halifax	-	Multifunctional	Multifunctional	4
Hammersmith	Multifunctional	Multifunctional	Multifunctional	3
Harlesden	-	Speciality	Speciality	4
Harpenden	-	Multifunctional	Multifunctional	3
Harpurhey	-	Speciality	Multifunctional	3
Harrow	Multifunctional	Multifunctional	Multifunctional	3
Haslemere	-	-	Comparison	3
Hastings	Holiday	Holiday	Holiday	2
Havering - Colliers Row	-	Multifunctional	Speciality	4
Havering - Elm Park	-	Multifunctional	Multifunctional	4
Havering - Harold Hill	-	Multifunctional	Speciality	4
Havering - Hornchurch	-	Multifunctional	Multifunctional	3
Havering - Rainham	-	Speciality	Speciality	4

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 – 2019	2022: 2016 Benchmarks	2022: New Centroids
Havering - Romford	-	Speciality	Speciality	3
Havering - Upminster	-	Multifunctional	Speciality	4
Haywards Heath	-	-	Comparison	3
Hazel Grove	-	-	Speciality	4
Heanor	-	-	Multifunctional	4
Heart of London	Speciality	Speciality	Speciality	3
Holmfirth	-	Multifunctional	Speciality	4
Horsham	-	Comparison	Comparison	3
Hounslow	Multifunctional	Multifunctional	Multifunctional	3
Hoyland	-	-	Multifunctional	4
Huddersfield	-	Multifunctional	Multifunctional	3
Hull	Comparison	Comparison	Comparison	3
Huntingdon	Multifunctional	Multifunctional	Multifunctional	3
Huyton Village	-	Multifunctional	Multifunctional	3
Ilford	Speciality	Speciality	Multifunctional	3
Ingatestone	-	-	Multifunctional	3
Ipswich	Comparison	Comparison	Multifunctional	3
Irlam	-	-	Multifunctional	4
Irlams O' Th' Height	-	-	Speciality	4

Islington	-	Multifunctional	-	-
Kendal	-	Multifunctional	Speciality	3
Kenilworth	Speciality	Speciality	Multifunctional	3
Kensington	Speciality	Speciality	Speciality	3
King's Lynn	-	-	Comparison	3
Kingston	-	-	Holiday	2
Kirkham	-	-	Multifunctional	3

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: 2022 Centroids
Knightsbridge	-	-	Comparison	1
Lancaster	Multifunctional	Multifunctional	Multifunctional	3
Langworthy	-	-	Multifunctional	4
Leamington Spa	Comparison	Multifunctional	Multifunctional	3
Leeds	Multifunctional	Multifunctional	Multifunctional	3
Leicester	-	-	Multifunctional	3
Leicester Square	Speciality	Speciality	Holiday	2
Levenshulme	-	Speciality	Speciality	4

Lichfield	-	Speciality	Speciality	3
Liverpool	Comparison	Multifunctional	Speciality	3
Loughborough	Multifunctional	Multifunctional	Multifunctional	3
Luton	Multifunctional	Speciality	Multifunctional	3
Macclesfield	-	Multifunctional	Multifunctional	3
Maidenhead	Comparison	Speciality	Speciality	4
Maidstone	Comparison	Multifunctional	Multifunctional	3
Manchester	Comparison	Comparison	Comparison	1
Manchester - Cheetham Hill	-	Speciality	Speciality	4
Manchester - Rusholme	-	Speciality	Speciality	4
Mansfield	Multifunctional	Speciality	Speciality	4
Market Harborough	Multifunctional	Multifunctional	Multifunctional	3
Marple	-	-	Multifunctional	3
Mayfair	Multifunctional	Multifunctional	Comparison	3
Melton Mowbray	Multifunctional	Multifunctional	Multifunctional	3
Middlesbrough	-	-	Multifunctional	3
Minehead	-	-	Holiday	2

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Monton	-	-	Speciality	4
Morley	-	Multifunctional	Speciality	4
New Bond Street	-	Comparison	Comparison	1
New West End	Multifunctional	Multifunctional	Comparison	1
Newbury	Multifunctional	Multifunctional	Multifunctional	3
Newcastle	Multifunctional	Multifunctional	Speciality	4
Newquay	Holiday	Holiday	Holiday	2
Newton Abbot	-	-	Speciality	4
North Walsham	-	-	Speciality	4
Northampton	Multifunctional	Multifunctional	Speciality	3
Northbank	Multifunctional	Multifunctional	Multifunctional	3
Northenden	-	Multifunctional	Speciality	4
Norwich	Speciality	Multifunctional	Comparison	3
Nottingham	Multifunctional	Multifunctional	Comparison	3
Oldham	Speciality	Speciality	Multifunctional	3
Ormskirk	-	Speciality	Speciality	4
Oxford	Multifunctional	Multifunctional	Multifunctional	4
Pendleton	-	-	Multifunctional	3
Penge	-	-	Multifunctional	3

Penistone	-	-	Multifunctional	4
Petersfield	-	Multifunctional	Comparison	3
Plymouth	Comparison	Multifunctional	Multifunctional	3
Poole	Holiday	Holiday	Holiday	2
Portsmouth	Comparison	Comparison	Multifunctional	3

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Prescot	-	Multifunctional	Speciality	4
Preston	-	Speciality	Speciality	3
Ramsey	-	-	Multifunctional	4
Reading	Multifunctional	Multifunctional	Comparison	3
Redcar	Speciality	Speciality	Holiday	2
Reddish	-	-	Multifunctional	4
Regent Street	Multifunctional	Multifunctional	Comparison	1
Richmond	-	Multifunctional	Multifunctional	3
Ripley	-	-	Multifunctional	3
Rochdale	-	Multifunctional	Multifunctional	3
Romiley	-	-	Multifunctional	4
Rotherham	Speciality	Multifunctional	Speciality	4

Royston	-	-	Speciality	4
Rugby	Speciality	Speciality	Multifunctional	3
Salisbury	Comparison	Speciality	Speciality	3
Saltburn	Speciality	Speciality	Speciality	3
Scarborough	Speciality	Speciality	Holiday	2
Scunthorpe	Comparison	Speciality	Multifunctional	3
Sedgley	-	Multifunctional	Multifunctional	3
Sheffield	Multifunctional	Multifunctional	Multifunctional	3
Shepherds Bush	Multifunctional	Multifunctional	Multifunctional	4
Shrewsbury	Multifunctional	Comparison	Multifunctional	3
Skipton	-	Speciality	Speciality	4
Sleaford	Multifunctional	Multifunctional	Speciality	4
Sloane Street	Multifunctional	Multifunctional	Multifunctional	3

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Slough	-	Multifunctional	Speciality	4
South Shields	-	-	Speciality	3
Southampton	-	Comparison	Comparison	1

Southfields	-	-	Speciality	4
Southport	Speciality	Speciality	Speciality	4
Southsea	Speciality	Speciality	Speciality	4
Spennymoor	Speciality	Speciality	Speciality	4
St Christopher's Place	-	-	Comparison	3
St Ives	-	-	Multifunctional	3
St Neots	-	-	Multifunctional	3
Stafford	Multifunctional	Multifunctional	Speciality	4
Stalybridge	-	-	Speciality	4
Stockton-on-Tees	Multifunctional	Speciality	Speciality	4
Stoke-on-Trent	Multifunctional	Multifunctional	Speciality	4
Stratford Upon Avon	Holiday	Holiday	Holiday	2
Sunderland	Comparison	Comparison	Multifunctional	3
Sutton	Multifunctional	Multifunctional	Multifunctional	3
Swindon	Comparison	Multifunctional	Multifunctional	3
Swinton	-	-	Speciality	4
Taunton	Comparison	Comparison	Comparison	3
Tewkesbury	-	-	Multifunctional	3
Trowbridge	-	-	Multifunctional	3
Truro	-	Comparison	Comparison	3
Victoria Avenue	-	Multifunctional	Speciality	4
Wakefield	-	Speciality	-	-

Classification of Annual Signatures for English Towns (cont)

Retail Centre	Signature Type			
	2014 - 2016	2017 - 2019	2022: 2016 Benchmarks	2022: New Centroids
Walkden	-	-	Multifunctional	4
Walsall		Speciality	Multifunctional	3
Walthamstow	Speciality	Speciality	Speciality	4
Warrington	-	-	Multifunctional	3
Warwick	Speciality	Speciality	Speciality	4
Waterloo	Speciality	Speciality	Speciality	4
Watford	Multifunctional	Multifunctional	Multifunctional	3
Wealdstone	-	-	Speciality	4
Wellingborough	Multifunctional	Multifunctional	Speciality	4
Wembley	-	Multifunctional	Multifunctional	3
Westminster	-	Multifunctional	Speciality	4
Weston Super Mare	Holiday	Holiday	-	-
Wey Hill	-	-	Speciality	4
Weymouth	Holiday	Holiday	Holiday	2
Willesden Green	-	Multifunctional	Multifunctional	4
Wimbledon	Multifunctional	Multifunctional	Speciality	4
Winchcombe	-	-	Speciality	4
Windsor	Comparison	Speciality	Speciality	3

Wisbech	-	-	Speciality	3
Withington	-	Multifunctional	Multifunctional	4
Woking	-	-	Speciality	4
Wolverhampton	Multifunctional	Multifunctional	Multifunctional	3
Wombwell	-	-	Multifunctional	4
Woolwich	Comparison	Multifunctional	Speciality	4
Worcester	-	Multifunctional	Comparison	3
Workington	-	-	Comparison	3
Worthing	Comparison	Comparison	Multifunctional	3
York	Comparison	Comparison	Multifunctional	3