

# Dissertation Submission Final

*by Amy Chan*

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**Submission date:** 12-Sep-2021 07:19PM (UTC+0100)

**Submission ID:** 159705673

**File name:** 33373\_Amy\_Chan\_Dissertation\_Submission\_Final\_1612843\_1691086696.pdf (25.66M)

**Word count:** 17237

**Character count:** 105951

# Exploring the Impact of COVID-19 on Small Businesses in London

HOW CAN ANCHOR INSTITUTIONS HELP SMALL BUSINESSES POST COVID-19?

AMY CHAN

## Abstract

The COVID-19 pandemic and subsequent national lockdowns have had a significant impact on businesses of all sizes, particularly small businesses. Therefore, it is essential that small businesses are adequately supported to enable their sustainable recovery from the pandemic. The Mayor of London has assembled the London Recovery Board (LRB) to oversee and push forward initiatives to support the long-term recovery of unemployment rates, small business closures and lost economic growth caused by the pandemic.

This report has identified two important factors which are crucial to businesses' ability to grow and survive and have subsequently been impacted by the pandemic: (1) growing and maintaining social networks and (2) dealing with uncertainty. The impact of the pandemic on these factors has ultimately limited the ability of small businesses to develop their knowledge of business administration and obtain investor financing. Anchor institutions are private or public organisations which have the potential to make genuine social and economic impacts to their localities due to their size and spending power; they have been identified as important actors in the city (GLA, 2021). By using their spending power through procurement, anchor institutions have an important role in helping small businesses recover from the pandemic. Public and private anchor institutions can provide this support by establishing local procurement policies.

To help anchor institutions strategically target resources, this report analysed the impact of COVID-19 on small businesses by industry. In addition, a tool has been developed for anchor institutions to use to help small businesses. The function of the tool is to help anchor institutions make informed decisions about setting and assessing the effectiveness of their local procurement policies. The tool does this by plotting the locations of small businesses and anchor institutions. This allows anchor institutions to identify where and what small businesses are in their locality. Coupled with a list of small businesses who were offered tenders, the tool also allows institutions to see how many small businesses they have offered service/product tenders to out of the total number of small businesses in the same industry, and therefore, the effectiveness of their local procurement policies.

## Declaration

I hereby declare that this dissertation is all my own original work with all sources acknowledged. It is 11,842 words in length.

Github Link: <https://github.com/AmyCh4n/dissertation21>

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## Acknowledgements

I would like to thank Max Nathan and Bloomberg Associates for their support and guidance on this dissertation project.

I would also like to thank Adam Dennett and Andy MacLachlan for providing me with the necessary skillset to code in R, as well as the rest of CASA's staff for teaching me a wide range of other programming languages.

Finally, I would like to thank my family for their support.

## 1. Introduction

The COVID-19 pandemic and subsequent national lockdowns have had a significant impact on all businesses, especially small businesses without an established online commercial presence, such as hospitality venues, which have had to halt trading entirely to comply with government guidance. This has had an enormous impact on small businesses' ability to develop and maintain business relationships and continue to trade. Therefore, it is essential that small businesses are adequately supported to enable their sustainable recovery from the pandemic.

The Mayor of London has assembled The London Recovery Board (LRB) to oversee and push forward initiatives to support the long-term recovery of unemployment rates, small business closures and lost economic growth caused by the pandemic (London City Hall, 2020). With the lifting of the UK's third national lockdown, there is a clear need to establish a solid foundation of support for small businesses throughout this transition period back to normalcy. To provide support, the LRB has identified some core anchor institutions in London that could assist and accelerate London's economic recovery; this is largely because anchor institutions are established employers of a large portion of the UK's workforce, and significant buyers of services and products (GLA, 2021). One example is the NHS, one of the largest employers in the UK which requires a breadth of different types of services and products to deliver their own services.

Understanding how the pandemic has affected London's small businesses will be vital in developing successful recovery plans. Building on published reports, which discuss the impact of COVID-19, this report will look to further explore the impact of COVID-19 on small businesses in London, and specifically aim to help identify how anchor institutions can support London's small businesses. To answer the wider research question, this report will break the question down into four distinct themes:

1. What are the challenges to small businesses' survival and growth?
2. How are small businesses performing by industry sector?
3. What is the role of anchor institutions?
4. How can anchor institutions help small businesses?

This report will begin with a literature review to outline: (1) challenges to small business survival and growth, including the impact of COVID-19 policies and interventions, (2) the role of anchor institutions, and (3) how anchor institutions can help small businesses. Data will be used to do two things: firstly, it will be used to analyse and compare the performance (in terms of numbers and percentage turnover) of small businesses by industry sector before the pandemic (2019), and one year into the pandemic (2020). Secondly, it will be used to develop a tool to help anchor institutions design and assess their procurement policies in a way that helps small businesses. To conclude, this report will discuss how small businesses have been performing by industry sector, as well as how anchor institutions can help small businesses through their local procurement policies, and thus, how anchor institutions can use the tool to set and assess their procurement policies, as well as any limitations, further work and concluding remarks.



## 2. Literature Review

### 2.1. Why Are Small Businesses Important?

#### Entrepreneurship, small businesses, and economic development

Small businesses are defined as having fewer than 50 employees, while micro businesses have under 10 (OECD Directorate, 2005 and GLA, 2020). For the purpose of this report, small businesses will be defined as businesses with under 50 employees (including micro businesses). An entrepreneur is defined as someone who “owns, launches, manages and assumes the risks of an economic venture”, including those who take over existing businesses (Acs, Desai and Hessels, 2008).

Small businesses and entrepreneurs are important facilitators and mechanisms for economic development. Combined with medium-sized businesses, small businesses are disproportionately important as more than 95% of UK businesses are small and medium-sized enterprises, and together they contribute 45% of total revenues (Bank of England, 2020). As such, they form one of the largest contributors to the UK economy. Additionally, small businesses are omnipresent across all industries and locations, and are much better placed to discover new market opportunities (Collier and Mayer, 2020). They can also make quicker decisions as they are not burdened with bureaucratic decision-making structures found in larger businesses (Collier and Mayer, 2020). These features make them key to economic development; therefore small businesses play a disproportionately important role during times of elevated uncertainty (World Bank Group, 2020 and Collier and Mayer, 2020).

Furthermore, entrepreneurship and economic development are closely linked together. Entrepreneurship is an important mechanism for innovation, employment and welfare impacts, which are known to be beneficial to the economy (Acs, Desai and Hessels, 2008). Consequently, emerging out of the pandemic, understanding the challenges that entrepreneurs and their small businesses face will be vital to gaining insights into how they, and subsequently the economy, can be supported.

### 2.2 What Are the Challenges to Small Businesses' Survival and Growth?

The pandemic has created new, and exacerbated existing, challenges to business survival and growth. The challenges arose when the country was forced to stay at home. Two aspects which are crucial to a business's survival and growth, and have been affected by the pandemic, are: (1) growing and maintaining social networks and (2) dealing with increased uncertainty.

#### Growing and maintaining social networks

Entrepreneurs use their networking skills, such as working and collaborating within a team, and sharing information, to contribute to their small businesses' ability to promote economic growth (Durlauf and Fafchamps, 2005). Social networks are an important resource used by new and experienced entrepreneurs to learn from, and apply, the experiences of other entrepreneurs to their own businesses. For example, during the initial stages of entrepreneurship, entrepreneurs use social structures to guide their business decisions, meaning that entrepreneurs use their social relations to gain advice on a wide range of business-related aspects and resources to grow and develop their own business (Greve and Salaff, 2003). For more developed businesses, social networks also provide a valuable resource whereby important connections can lead to the achievement of wider organisational goals through improved coordination and resource sharing (Chen et al., 2018). This may be seen where larger corporations, such as anchor institutions, turn to small businesses to acquire and identify innovative resources and opportunities that they themselves did not attempt to finance initially. Therefore, social networks are an important mechanism for business

development and sharing resources and opportunities for innovation, thus leading to business survival and growth, and development of the economy.

The pandemic has had a substantial impact on the way in which entrepreneurs grow and maintain their social networks. One of the main impacts has been the rapid digitalisation of entrepreneurial processes, such as networking, also referred to as the digitalisation of entrepreneurship (Berger et al., 2021). The pandemic and continuing advances in digital technologies have rapidly transformed economic and social activities (Berger et al., 2021). This has pushed entrepreneurs to digitally adapt their networking practices to online networking methods to socialise with their peers and customers/clients. As such, being able to digitally adapt will continue to be particularly important to the success of small businesses who rely on social networks to be able to meet with more established entrepreneurs for business knowledge, advice, and resources.

While the digitalisation of processes and entrepreneurship has been acknowledged as a key enabler to increase participation and improve efficiency, it is also important to consider the possible negative impacts of digitalisation (Berger et al., 2021). Digital technologies can have a negative impact on organisations and society, as they may be advantageous to certain groups but disadvantage others (Berger et al., 2021). For example, a slow reaction from entrepreneurs to be digitally present is likely to impact on their opportunities to share ideas and meet new and existing clients, consequently impacting on their ability to maintain and grow their social networks and repertoire of expertise. Where this may be most obviously seen is in the ability of businesses to invest into digital technologies as, to digitalise often requires funding. A pressure to digitalise the way entrepreneurs network could prove to be a further financial burden on small businesses that do not have the necessary resources to invest, and thus present as a barrier of entry into a competitive market. Additionally, social aspects, such as working from home, may become more frequent and employees may not meet each other in person as frequently. The impact of this change on workplace culture and team relationships, consequently the development of small businesses is unknown.

#### Dealing with increased uncertainty

Business uncertainties are a common phenomenon to entrepreneurs and small businesses. However, over the course of the pandemic, uncertainties such as aggregate demand and financial stability have significantly increased (Kuckertz, 2021). As a result, businesses across all industries have suffered significant losses in income and have subsequently been unable to pay for business maintenance and expenses (Fairlie, 2020). Causes of this uncertainty include unpredictable repetitive waves of the pandemic, subsequent government imposed (or not imposed) infection control measures and restrictions, as well as the risks associated with policy initiatives implemented to support entrepreneurial activities (Kuckertz, 2021). All these factors increase the levels of uncertainty for entrepreneurs (Kuckertz, 2021).

The pandemic has both reduced and changed the expected pattern of aggregate demand, introducing additional investment uncertainties: (1) whether to incur the costs of maintaining enterprises and retaining staff to meet demand, if and when it returns, and (2) whether to invest if the demand is proven to be temporary (Collier and Mayer, 2020). Although uncertainty brings risks, it also breeds opportunity (Kuckertz, 2021, and Collier and Mayer, 2020). Crisis provides entrepreneurs the opportunity to radically adjust business models for new innovative entrepreneurial opportunities (Kuckertz, 2021). Nevertheless, times of high uncertainty have massive implications on the early-stage financing of businesses as, in comparison to large businesses who can use their marketable bonds and equity to access investment, small businesses are only able to raise finance if they have access to venture capital or collateral (Collier and Mayer, 2020). Essentially, the ability of a business to raise finance relies on their existing value and/or

funds from investors. Therefore, although small businesses may be more willing to invest innovatively, British financing is skewed against them as small businesses often do not have access to venture capital or collateral funds. This places a higher level of uncertainty on whether small businesses will be able to scale-up their finances, operation and support services when they begin to receive increased demand for their services (World Bank Group, 2020). In order to manage these shifts in demand during times of increased uncertainty, opportunities need to be identified and scaled through speculative investment from public and private bodies to give businesses the necessary financial support to upscale the services they provide if and when there is an increase in demand. Even so, such ventures are often discouraged; this is especially apparent in larger private firms which have more formal procedures for approving decisions (Collier and Mayer, 2020). One solution for this is establishing the government as an investor of small businesses to provide initial support, and subsequently boost private interest and investment (Collier and Mayer, 2020).

### Navigating public policy

#### *COVID-19 policies*

The government implemented several financial support initiatives to protect workers and businesses, as well as mitigate against the negative economic impacts of COVID-19. These initiatives include the Coronavirus Job Retention Scheme (JRS), and the Bounce Back Loan Scheme (BBLs) (GOV.UK, 2021). On the whole, these interventions have had a positive impact on keeping the financial system strong and stable for the duration of the pandemic. For example, the JRS funded 100%, then reduced to 80%, of the wages for employees furloughed (GOV.UK, 2020a) and the BBLs granted businesses with small 12-months interest-free loans up to £50,000 which are 100% guaranteed by the government, potentially giving small businesses the ability to restart their business to meet demand (GOV.UK, 2020b).

However, these initiatives create new risks for the corporate sector, including small businesses (Susskind and Vines, 2020). While the JRS kept unemployment low, it is forecasted that large numbers of the workforce will be made redundant when employers are required to make larger contributions to keep their staff, and when the JRS comes to an end in September, as businesses will be unable to sustainably keep their employees (Susskind and Vines, 2020 and Johnson, 2020). Additionally, small businesses' ability to pay back the BBLs will depend on their ability to turn a profit in an uncertain environment. Nevertheless, a high default rate on the loans is expected, possibly leading to substantial bailouts for companies and a huge impact on the wider financial system (Susskind and Vines, 2020 and Emmerson and Stockton, 2021).

As has become evident, the pandemic will have long lasting effects (Susskind and Vines, 2020). Therefore, any short-term interventions which were implemented during this crisis will need to be redesigned or replaced for the long-term. This will result in a cautious period of recovery to consider new policy options across a breadth of diverse business sectors (Susskind and Vines, 2020).

#### *Future policies*

The pandemic has highlighted areas which are essential to rebuilding the economy; these include the government's capacity to adapt and align public services to meet the needs of its citizens, as well as their ability to govern resilient production systems (Mazzucato and Kattel, 2020). Through policy making, it is the responsibility of the public sector to ensure the long-term resilience and stability of their societies (Mazzucato and Kattel, 2020). Thus, countries such as the UK and the US, who have previously focussed on outsourcing their production and used their influence to regulate markets rather than shape them, have uncovered vulnerabilities in their healthcare and production systems during the pandemic (Mazzucato and Kattel, 2020). Therefore, in the context of this report, it will be in the interest of the UK government to

focus on building back a better, stronger, and more resilient society and public service. This will require investment into core public-sector capabilities and capacities, including enabling public-sector organisations to connect with businesses to design contracts which deliver products and services that genuinely meet the public's needs (Mazzucato and Kattel, 2020).

One way the government intends to achieve this is through their Transforming Public Procurement green paper, which sets out the government's intentions for the future of public procurement. In this paper, the government describes their intention to simplify and increase the speed of procurement processes with core principles that include buying products and services which are value for money and increasing opportunities for small businesses to innovate in public service delivery (Cabinet Office, 2020). This will be achieved through a single framework with three simple procedures which are: (1) flexible for negotiation and innovation, (2) open for simpler tender competitions and (3) limited for use in specific circumstances such as times of crisis (Cabinet Office, 2020). Additionally, the government's "build back better" mandate sets out their vision for growth. Part of the mandate includes £375million committed to the Future Fund: Breakthrough, which is a new direct co-investment scheme to support the scaling up of the most innovative research and development of small businesses, and mentoring and funding services from the British Business Bank for innovative businesses which are starting or scaling up (HM Treasury, 2021).

Although ideas around "building back better" are vague, businesses must operate in compliance with government policies. Therefore, businesses and the government need to form collaborative relationships to mitigate the risk of an economic crisis (Susskind and Vines, 2020 and Mazzucato and Kattel, 2020). A revitalisation of private and public investment, as well as collaboration between the two sectors, is also required. This necessitates a different type of government that can act as an investor or catalyst to innovative businesses (Mazzucato and Kattel, 2020); thus, leading to greater interest from private sector businesses which could subsequently lead to increased private investment. This supports Collier and Mayer (2020) who suggest that public investment is initially needed to support small businesses and boost private interest and funding.

### 2.3 What is the Role of Anchor Institutions?

#### What is an anchor institution?

"Anchor institution" is a term that is used to refer to large organisations who have the potential to make genuine social and economic impacts to their locality as a result of their size and spending power (GLA, 2021). They are large scale employers and often the largest purchasers of goods and services in their locality. They also often oversee large areas of land and are often tied to a particular location by their mission and history, as well as local relationships (CLES and PCC, 2019). Examples of anchor institutions include public bodies such as local councils and the NHS, and private organisations such as universities.

#### The role of public organisations

Public organisations like the NHS are present throughout the country, exist as large employers of the UK workforce, and buyers of a variety of services and products, and typically serve a specific area/community - this presents a prime opportunity for the NHS to support their local communities and businesses. To demonstrate the strength of their spending power, prior to COVID-19, the NHS spent almost £30bn a year on procurement. In addition to this, the government has also pledged to increase funding for the NHS and other public services (Allen and Allwood, 2020).

The Health Foundation (THF) has partnered with the Centre for Local Economic Strategies (CLES) to understand how NHS organisations can act as anchor institutions in their local communities through

procurement (The Health Foundation, 2020). An example of how THF can work with CLES to cement the role of the NHS as an anchor institution is CLES's collaboration with Preston City Council (PCC). The PCC identified that Preston had several influential anchor institutions which collectively spend over £1bn per year and employ thousands of local people (CLES and PCC, 2019). CLES began working with Lancashire County Council and other anchor institutions in Preston to redirect their spending towards local suppliers with a focus on institution spend on goods, works and services (CLES and PCC, 2019). CLES and PCC (2019) found that of the £750m spent by the anchor institutions on procuring goods and services, £458m (61%) was spent outside of the Lancashire economy.

To understand how much was being spent within the local economy, CLES and the anchor institutions analysed the types of products and services that were bought outside of the local economy and subsequently analysed which contracts could be separated into smaller tenders and/or opened to greater competition. One example was a school catering tender, which was separated into smaller contracts to enable local businesses to win tenders (CLES and PCC, 2019). To open opportunities to a wider range of suppliers meant that procurement procedures needed to be overhauled, and procurement spending where funding was being used inefficiently, or was "leaking" out of the Lancashire economy, needed to be identified (CLES and PCC, 2019). From 2012-13, when the work with anchor institutions first started, £38.3m of procurement spend was retained in Preston; this amount increased substantially in 2016-17 to £122.3m being retained; an increase of over 200% within 4 years (CLES and PCC, 2019). Similarly, within Lancashire in 2012-13, £288.7m was retained in comparison to 2016-17 when £488.7m was retained (CLES and PCC, 2019).

This case study demonstrates the potential impact public institutions can have on local, small businesses and shaping local economic activity. By setting out clear and purposeful actions, through local procurement policies and targets, public institutions, like the NHS, could use their role as an anchor institution to support local businesses and thus help to mitigate some of the negative social and economic impacts of the pandemic (Allen and Allwood, 2020).

#### The role of private organisations

Private institutions such as universities are also important stakeholders in their localities in promoting improved development and quality of life (Kempton et al., 2021a). In this context, universities play a major role as anchor institutions as they are often large employers and buyers of services and products. They also play a key role in developing intellectual capital, which is integral to the knowledge economy.

A call for universities to become more active in the development of their localities has led to questions about how this demand can be met through their institutional strategies and structures (Kempton et al., 2021b). This has produced three different models of universities: entrepreneurial, engaged, and system-based (Kempton et al., 2021b). The engaged university is defined by an involvement of the institution in a broader range of activities with external actors; this involves contributions to local development including providing consultancy services to businesses, advising governments on policy making and economic engagement with community groups (Kempton et al., 2021b). This model opens the university to more holistic potentials, such as contributions to local development, which include creating new opportunities for businesses (Kempton et al., 2021b). Literature which supports the anchor institution movement highlights that best practices include the strategic targeting of resources, strategies which address the community physically, socially and economically, and a balance between university and community needs and goals (Ehlenz, 2016). Alternatively speaking, universities' obligations to society also need to align with the interests of their internal citizens (e.g students and staff) and university issues. Additionally, it is

important for universities to understand how they can engage in development that is shaped by government policies and national scale funding programmes (Kempton et al., 2021b). Applied to the context of this report, it is important that institutions' resources are strategically targeted, with government policies and funding schemes in mind, to benefit small businesses whilst also generating the best return for the university.

As centres of knowledge production, universities play an important role in nurturing innovation. This is exemplified by start-up incubators which nurture and provide environments in which small businesses are given the opportunity to develop innovative business ideas within the administrative environment of an anchor institution (Mcadam and Marlow, 2007). UCL's Hatchery start-up incubator gives aspiring entrepreneurs a space where they can network with other entrepreneurs, angel investors and venture capitalists to develop their ideas (UCL, 2021). Additionally, administrative support is provided for entrepreneurs, in the form of mentors, lawyers, accountants, and experts in minimum viable product creation (UCL, 2021). These services are vital to the success of less experienced entrepreneurs and small businesses.

Whether anchor institutions are public or private organisations, they can provide valuable support to small businesses and the entrepreneurs who run them by setting local procurement policies or providing a supportive space where entrepreneurs can develop their business. Well directed, the relationship between anchor institutions and small businesses has potential to be of mutual benefit.

## 2.4 How Can Anchor Institutions Help Small Businesses?

### Setting local procurement policies and targets

Local procurement policies, which encompass local and small businesses, and spending towards the functioning of local economies is essential in terms of keeping the local economy healthy, especially during times of economic and fiscal restraint (CLEs, 2010).

In 2010, Manchester City Council (MCC) and the CLES worked to demonstrate the benefit of progressive procurement policy and spending during a time when the UK was emerging out of prolonged recession (CLEs, 2010). The MCC lacked a quantitative understanding of how local procurement spending benefitted the local economy and how sustainable procurement policies and practices could be improved (CLEs, 2010). CLES subsequently set out a research process, which was used to understand the local economic, social, and environmental benefits of procurement, called the National Procurement Strategy (NPS) (CLEs, 2010). The NPS subsequently began discussions on the benefits of a sustainable procurement strategy and community benefits (CLEs, 2010). The strategy states that councils need to firstly encourage a range of suppliers to stimulate a competitive and varied marketplace, and secondly prepare a community plan to promote economic, social, and environmental well-being for their immediate communities (CLEs, 2010). However, cutting up larger service tenders into smaller pieces means that large organisations may risk losing the economy of scale. McInroy challenges this assumption and suggests that breaking up tenders is an act to free up the market, not an exercise in subsidising small businesses (Vize, 2018). Since larger firms tend to have a monopoly of the market, a series of smaller tenders would increase competition and subsequently reduce overall costs (Vize, 2018).

Both public and private institutions can set local procurement policies. Public anchor institutions such as local authorities fund many local services, from schools to rubbish collection, and thus need to buy a wide range of goods and services. Therefore, they are well placed to support small businesses of all industries. Additionally, setting local procurement policies would be in their interest as it would contribute to their

own local economies. While local authorities may lose out on the economy of scale when splitting tenders into smaller contracts, because of their high spending power, their investment would work to boost the local economy by increasing the amount of tax revenues collected, thereby helping the council to fund further local services and keep the local economy healthy. Moreover, private institutions can also set local procurement policies. For example, Kings College London's socially responsible procurement policy includes a pledge to encourage the inclusion of SMEs, particularly local businesses, by making procurement processes proportionate (KCL, 2019), thus giving small businesses an opportunity to win competitive tenders.

#### Providing business incubators

While public institutions still have budget pressures, setting local procurement policies and targets may be more suited to institutions that can include factors which consider the wider picture, such as the positive impact on the local economy. However, for private institutions which typically have a shorter-term horizon and a strong objective to make profits, losing the immediate savings from economy of scale may present a conflict of interest. Therefore, it may be easier for private institutions to support small businesses and entrepreneurs by providing business incubators. The benefit of incubators is seen where incubated businesses exceed in job provision and sales performance compared to non-incubated businesses (Lasrado et al., 2015). However, literature analysing the impact of incubators on small businesses suggests that the intensity of the support given by incubators may ultimately become a hinderance when businesses reach a point in their development where they need to independently develop their business structure (Mcadam and Marlow, 2007). This directly contradicts Lasrado et al. (2015) but could be explained by different levels of support provided by different incubators. Nevertheless, the impact of this is seen as a decline in the success of small businesses in the short-term after leaving the incubator (Lukeš, Longo and Zouhar, 2019). Therefore, there is a need to improve the structure of incubators across the board so that businesses can be developed independently; thereby, ensuring their long-term longevity. Furthermore, there are limited spaces in incubators, leading to high competition between start-ups. This leads to a divide in the success of incubated businesses and non-incubated businesses, where incubated businesses become disproportionately more successful than those who were not (Lukeš, Longo and Zouhar, 2019). Consequently, greater accessibility to business support for non-incubated businesses is needed to minimise the gap between incubated and non-incubated businesses.

### 2.5 Section Summary

In summary, as a result of the pandemic, small businesses have faced increasing challenges with respect to business survival and growth. Businesses' abilities to grow and maintain their social networks have been impacted by the rapid digitalisation of entrepreneurship, expedited by the pandemic. This rapid digitalisation may have disadvantaged businesses who were unable to respond quickly enough to this change. Another issue, which has been exacerbated by the pandemic, is the pressure of uncertainty on small businesses. These uncertainties have substantial implications on the early-stage financing of small businesses and include whether and when the market will recover post pandemic. Thus, impacting on small businesses' abilities to raise finance to conduct business; for example, scaling up production processes to meet demand.

Anchor institutions play important roles in the local economy as they are large employers of the UK workforce, and buyers of a wide range of services and products. Public and private anchor institutions have different strengths which play a role in the main kind of support they can provide. Nevertheless, by setting local procurement policies, both public and private anchor institutions can set out tangible strategies to help small businesses.

### 3. Data

This section of the report explains the datasets that were used in the methodology section. Datasets were downloaded from the London Datastore, Office for National Statistics (ONS) and Financial Analysis Made Easy (FAME).

#### 3.1 Small Business Data

Two datasets were used to examine London's small businesses:

1. The ONS's Business Population Estimates (BPE: ONS, 2020) 2015 to 2020 sheets for London were used to set a baseline showing how all small businesses were performing. It was also used to show how small businesses were performing by industry sector. Estimated data on the number and percentage turnover of businesses (all and by industry sector) was extracted and used in the analysis.
2. The Local Units by Employment Size dataset (London Datastore, 2020a) was used to map the number of businesses per employment size by borough. It contains information on the number of VAT and/or PAYE based businesses based on employment size at London borough, inner/outer London and regional levels for enterprises and local units. The local units version of the dataset was selected because all places of work were considered to encompass all types of businesses.

#### 3.2 Anchor Institution Data

Survey results from Bloomberg Associates' Anchor Institution Survey were provided by Bloomberg Associates (2021). The results include information about anchor institution buying and hiring needs. The feedback responses from anchor institutions gave an indication of their local procurement intentions and future targets. Information on anchor institutions top goods and services purchased by value in 2019 were used to indicate relevant industries.

#### 3.3 Locational Data

Six datasets were used to map the registration borough, and longitude and latitude coordinates of London's small businesses, and anchor institution locations:

1. The Statistical GIS Boundaries dataset was used to map the boundaries of the London boroughs and contains National Statistics data and Ordnance Survey data from 2015 (London Datastore, 2014).
2. The FAME dataset was used as the most current source of small business information. It was extracted from the FAME database using employment size, SME businesses and location as identifiers. It contains company information including company name and number, registered office postcode and primary SIC code (FAME, 2021).
3. The Directory of London Businesses (Businesses in London) dataset was used to identify businesses' registration boroughs. It contains information on small businesses in London as of 2020 (London Datastore, 2020b).
4. The Postcode Directory for London dataset was also used to identify businesses' registration boroughs. It contains current and terminated postcodes in London and their matching boroughs (London Datastore, 2020c).
5. The FreeMapTools (2021) dataset was used to identify small businesses' registration longitude and latitude coordinates.
6. Finally, a sample of anchor institution locations was provided by Bloomberg Associates and downloaded from Google Maps (Google Maps, 2021a).



## 4. Methodology

The wider research question, “How can anchor institutions help small businesses post COVID-19?” was broken down into four smaller themes; two of these were answered by analysing the data outlined in Section 3.

2. How are small businesses performing by industry sector?
4. How can anchor institutions help small businesses?

For anchor institutions to understand how they can help small businesses, as well as strategically target resources, they first need to know how small businesses are performing by industry sector and subsequently, which require the most support. Additionally, anchor institutions need to be able to set and ensure that they are meeting their local procurement policies and targets. To do so, this research develops a tool which shows the locations of small businesses in relation to anchor institution locations. The tool is intended to help anchor institutions set and assess their local procurement policies and targets by visually plotting the locations of small businesses in London. When setting local procurement policies, institutions will be able to see the locations of, and how many, small businesses per industry there are in London/ their locality. When assessing the effectiveness of their procurement policies, anchor institutions can combine the tool with a list of small businesses who have obtained tenders from the institution, to assess how much procurement has been small, and/or local. The process of analysis for the datasets outlined in Section 3 is displayed in Figure 1. R-Studio and QGIS (software) were used to complete the analysis.

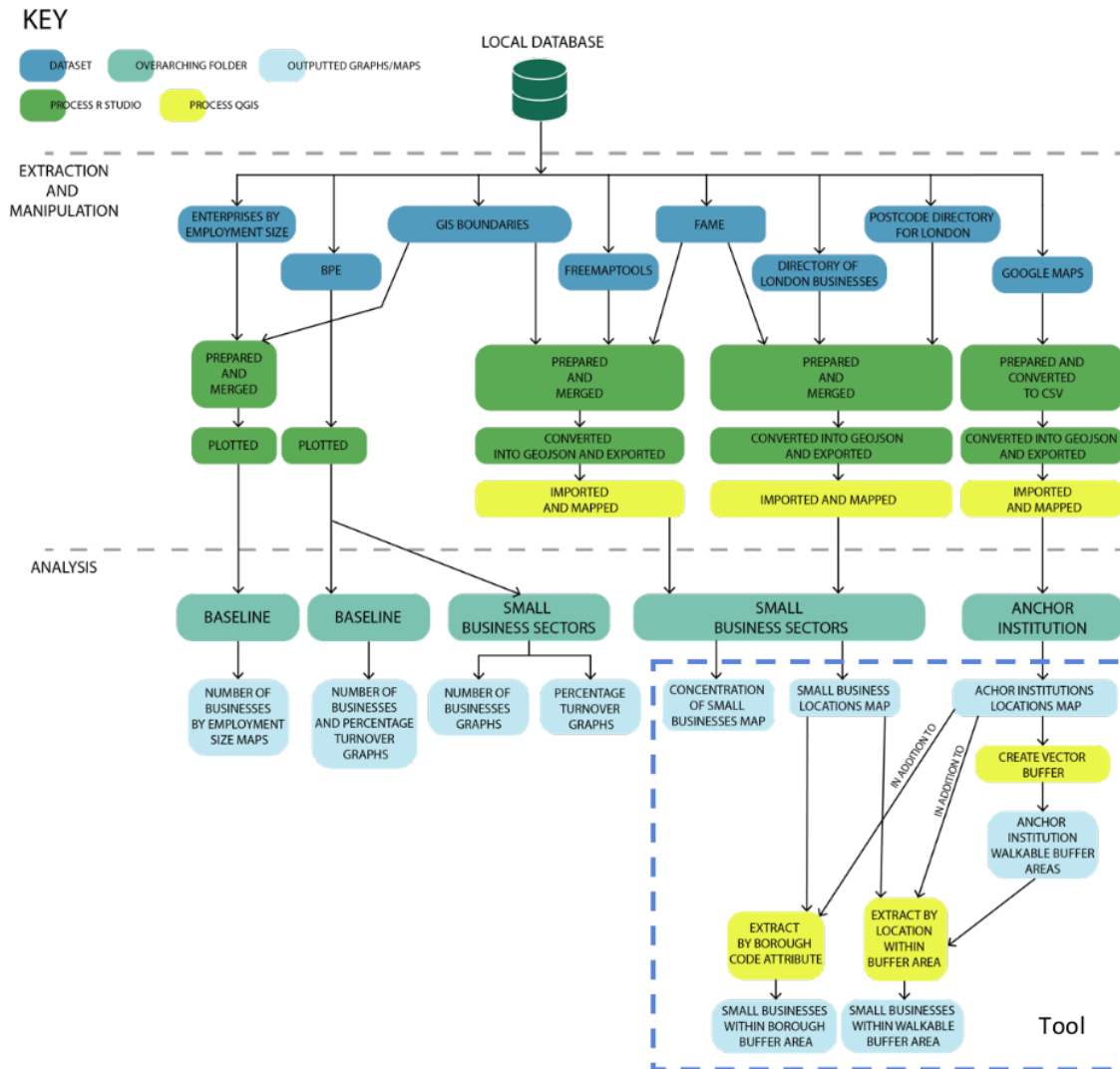


Figure 1 Analysis flow chart

#### 4.1 Stage 1 – Setting a Baseline

Before any observations can be drawn about how small businesses have been affected by the pandemic, it is important to determine a baseline of how small businesses in London have been performing in previous years prior to the pandemic. To do this, data from five years pre-pandemic was used (2015-2019) and compared to data from one year since the beginning of the pandemic (2020).

##### Number and percentage turnover of small businesses

To graphically display the number and percentage turnover of all small businesses, the BPE dataset was downloaded, and the relevant datasheets (2015-2020) were compiled into one excel document. This was converted into a .csv file, then read and cleaned in R-Studio. Data on the number and percentage turnover of all small businesses in London with employees of 0 (unregistered), 0 (registered), 1, 2-4, 5-9, 10-19, 20-49 was extracted from the BPE dataset in R-Studio and line graphs were produced for both number and percentage turnover of small businesses using ggplot2 (R package).

##### Small business employment sizes

To map the number of businesses by employment size by borough, the statistical London boundaries were used to plot the London boroughs. The Local Units by Employment Size dataset contained a range of separate sheets within the same document. As all the sheets contained relevant data, all of the data from each sheet was consolidated into one complete dataset using excel, and the relevant employment ranges extracted (0-4, 5-9, 10-19, 20-49 employees) in R-Studio. The London boundaries data and the local units data were then merged together in R-Studio and mapped using Thematic Maps package (tmap R package) in the form of a timeseries map, which shows the changing number of businesses in each employment size group over time.

#### 4.2 Stage 2 – How are Small Businesses Performing by Industry Sector?

At this stage, small businesses were grouped into general industry groups and analysed to explore how business industries were performing, and which needed the most help.

##### Grouping standard industry codes (SIC)

The BPE dataset was used as it contains data already grouped by industries using SIC sectors (letters), hereafter referred to as “industry sectors”. To compare the number of businesses by industry, BPE’s industry sectors were grouped together to gather businesses categorised under the same general industry group: services, wholesale, logistics and transportation, manufacturing and other, as defined in Appendix A. Subsequently, the most relevant general industry groups were selected based on the results from the Anchor Institutions Survey collected by Bloomberg Associates (2021). In their survey responses, public organisations reported the top five goods and services purchased by value in 2019 (Figure 2); these were businesses from the services, and wholesale, logistics and transportation (WLT) industries. Therefore, these industries were chosen as the main general industry groups for analysis.

Goods/Services Bought by Anchor Institutions (In no particular order)	Standard Industrial Classification	General Industry Group
Computer equipment, accessories, and software	G – Wholesale and Retail Trade	Wholesale, Logistics and Transportation
Office equipment and supplies	G – Wholesale and Retail Trade	Wholesale, Logistics and Transportation
Consumables	I – Accommodation and Food Service Activities	Services
Telecommunications and media services	J – Information and Communication	Services
Estates and maintenance services	L – Real Estate Activities	Services
Marketing	M – Professional, Scientific and Technical Activities	Services
Professional and legal fees	M – Professional, Scientific and Technical Activities	Services
Management and business services	N – Administrative and Support Service Activities	Services
Security services	N - Administrative and Support Service Activities	Services
Office administrative and printing services	N – Administrative and Support Service Activities	Services
Building services	N – Administrative and Support Service Activities	Services
Human resources services	N – Administrative and Support Service Activities	Services
Educational services (and subcontracting services)	P – Education	Services
IT services	S – Other Service Activities	Services

Figure 2 Survey results on top 5 goods and services bought by anchor institutions in 2019 (Bloomberg Associates, 2021)

### Number and percentage turnover of businesses by industry

The BPE dataset was used to plot the estimated number and percentage turnover of businesses by industry sector. The converted and cleaned BPE file, which had already been read into R-Studio for the baseline number and percentage turnover of all small businesses graph, was used again for this analysis as it also contained the estimated number and percentage turnover of businesses by industry sector. The same manipulation process was followed as above, however, in addition to this, the industry sectors were grouped together under the services and WLT general industry groups. Then, the number and percentage turnover of small businesses by industry sector were graphed using ggplot2 (R package), with one graph per industry sector, grouped together under the relevant general industry group.

Results for businesses categorised under the general manufacturing industry group were also produced as a comparison (Appendix B).

### 4.3 Stage 3 – Creating A Mapping Tool to Help Anchor Institutions

#### Number of small businesses by borough

To show the number of businesses per industry group in each borough, the FAME dataset was used. It contains registration postcodes which are useful in identifying the location of small businesses. Postcodes can be used to identify other locational information about small businesses, such as the borough. The FAME data was first read into and cleaned in R-Studio, and then merged with the Businesses in London dataset, using 'left join' (R merge operation) with the company name and number as identifiers. This newly merged dataset was subsequently merged with the Postcode Directory for London dataset using 'left join' again with the company postcodes as identifiers; this was done to identify the small businesses' registration boroughs. The resulting dataset was then filtered by local authority code (ladcd) and then filtered by SIC code using the general industry groups identified above (Figure 2). As R-studio uses logical operators (true/false) to count the number of variables that meet the filter requirement, businesses which were classed as true (for each general industry group), were then counted and the total placed in new dataframes by borough. The subsequent dataframes containing the number of businesses per industry group in each borough were then merged into one dataframe. This final dataframe was then merged with the London statistical boundaries data and then used to plot maps, using the Thematic Maps package (tmap R package), showing the number of businesses per industry group in each borough.

#### Small business locations

The FAME dataset was also used to plot the locations of small businesses using QGIS. The postcodes in FAME were used to identify longitude and latitude coordinates. As such, the FAME dataset was merged ('left join') with FreeMapTool's UK Postcodes with Latitude and Longitude dataset to find the registration longitude and latitude coordinates using the postcodes as identifiers. This dataset was then filtered by SIC code to categorise the businesses by industry group (service and WLT) and exported into a geojson file format. The geojson file and London statistical boundaries data was then imported into QGIS and plotted in conjunction with QGIS's openstreetmap extension to show the locations of small businesses by industry group across London.

#### Anchor institution locations

A sample of anchor institution locations was provided by Bloomberg Associates via a shared Google Map. This information was exported from Google Maps into a KML document and read into R-Studio using `st_read` (R simple features package). This data was then plotted with the London statistical boundaries data using the Thematic Maps package (tmap R package).

#### Buffer/catchment areas

To show anchor institutions where and how far away small businesses are located from the institutions' location(s), two buffer areas were defined: walkable and borough. When selecting the buffer areas, it was important to consider the product and service requirements of anchor institutions. The main variable being considered was the distance between anchor institutions and small businesses. These two buffer areas were chosen because of the different methods of travel: walking and motor vehicle.

#### *Walkable buffer area*

When choosing the walkable buffer areas, 1km, 3km and 5km buffers were selected for short, mid, and furthest walking distances respectively. 1km (1000m) is a 15–16minute walk in central London, for example from Goodge Street to Leister Square (Google Maps, 2021b). Therefore, a 75minute walk was calculated for the 5km (5000m) buffer area. Additionally, regarding the area coverage of these buffer zones, it was useful to use the area of London (1572km<sup>2</sup>) (London Datastore, 2021d) as a comparison to

understand the reach of the institutions by walkable distance, using the walkable buffer areas. The area of a 5km radius buffer zone is 78.54km<sup>2</sup>. Therefore, if the number of anchor institution locations is known, the total area of London that the walkable buffer areas cover can be calculated and thus provide a quantitative measure which indicates the reach of the anchor institutions.

$$\text{Area} = \pi r^2 = 3.14 \times 5^2 = 78.54 \text{ km}^2$$

To plot the walkable buffer areas, the anchor institution locations KML files were first converted into .csv files, using a file converter (Data Design Group, 2021), and then read into R-Studio to convert the .csv files into geojson files. These geojson files and the London statistical boundaries data were then imported into and plotted, in conjunction with QGIS's openstreetmap extension, in QGIS to show the anchor institution locations; 1, 3 and 5km buffer areas were drawn around the institution locations using QGIS's 'buffer' tool.

#### *Borough buffer area*

The second buffer area was set as the borough boundaries because anchor institutions may require products that are delivered in larger quantities, and therefore need to be delivered by motor vehicle, or are not available within the walkable buffer area. Additionally, these locations can be considered 'local' as some anchor institutions, such as local authorities, distribute services and products borough wide. The borough buffer areas were identified using the statistical London boundaries dataset (London Datastore, 2014).

#### *Small businesses and anchor institutions*

To show anchor institutions where small businesses are located in the walkable buffer areas, the small business locations maps (services and WLT) were used. From these maps, small businesses within the 1,3 and 5km buffer zones were extracted using QGIS's Extract by Location function. Similarly, to show the locations of small businesses by borough, the small business locations maps were used. Small businesses were extracted by ladcd using QGIS's Extract by Attribute function. For both buffer areas and general industry groups, attribute tables were printed to show relevant information (e.g. company name, SIC code, number of businesses) on the small businesses within the buffer areas.

#### *4.4 Ethical Considerations*

The majority of the datasets used in the analysis were sourced from publicly owned databases, including the London Datastore and Office for National Statistics. Data from the FAME database was accessed through the UCL Library but could also be accessed directly from the Companies House public database. Privately owned data was also used in the analysis; a survey undertaken by Bloomberg Associates was used to identify anchor institutions' local procurement and employment intentions. This information was aggregated and anonymised, and permission was granted from Bloomberg Associates to use the results of their survey as part of this research paper. Both publicly and privately sourced datasets have been clearly cited. Observations made from the findings of the analysis are high level observations about the impact of the pandemic on small businesses in London. A Low-Risk Ethics application was submitted and approved by the UCL Ethics Board.

## 5. Results

### 5.1 Setting a Baseline

To compare how small businesses were performing before (2019) and during (2020) the pandemic, this sub-section sets out a baseline using the number, percentage turnover and employment figures of all small businesses. Small businesses have been separated into employment groups and includes businesses with 0 employees who are registered and unregistered for VAT and/or PAYE.

#### Number and turnover of small businesses

Overall, the number of small businesses in London has remained stable from 2019 to 2020. The highest number of businesses are those with 0 employees (both unregistered and registered). As BPE uses estimated figures, 2020 figures show that the number of unregistered businesses with 0 employees was estimated to increase, suggesting an increase in the number of start-up businesses with no initial employees (Figure 3). However, when compared with the estimated percentage turnover of all small businesses (Figure 4), larger businesses with 2-4, 5-9, 10-19 and 20-49 employees had the highest estimated percentage turnover. This suggests that while there are less businesses with more employees, these are the businesses that generate the highest turnover. Interestingly, the percentage turnover of businesses with 10-19 employees was estimated to decrease drastically between 2019 and 2020.

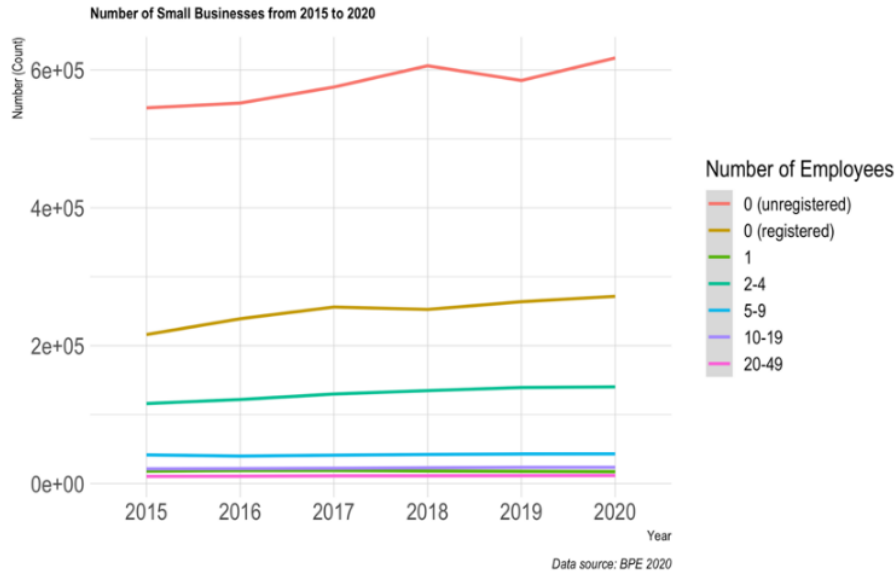


Figure 3 Number of small businesses in London from 2015 to 2020

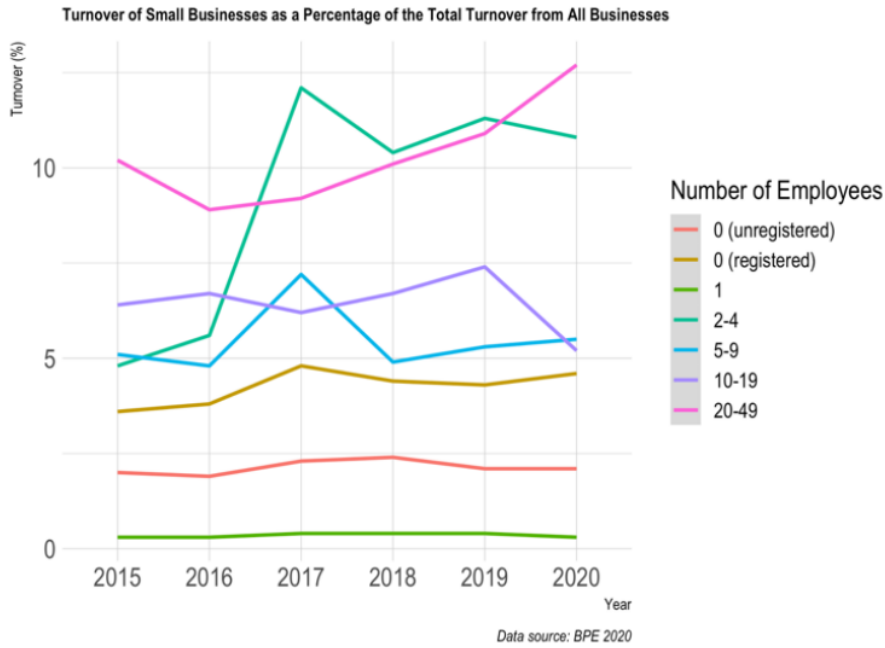


Figure 4 Turnover of small businesses in London as a percentage of the total turnover from all businesses in London from 2015 to 2020



**Small businesses by employment size**

In terms of the number of small businesses in London by employment size, we can see that across all employment groups (0-4, 5-9, 10-19 and 20-49) the highest concentration of businesses remains in Westminster, with the least number of businesses in the east, west and southwest (Figures 5 and 6). Additionally, the majority of small businesses fall into the 0-4 employees' group followed by 5-9, 10-19 and 20-49. The number of small businesses in the 0-4 employees group also increases each year and across most boroughs. Interestingly, from 2019 to 2020 the number of businesses in Ealing with 5-9 employees increased while the number of businesses with 10-19 employees decreased (Figures 5 and 6).

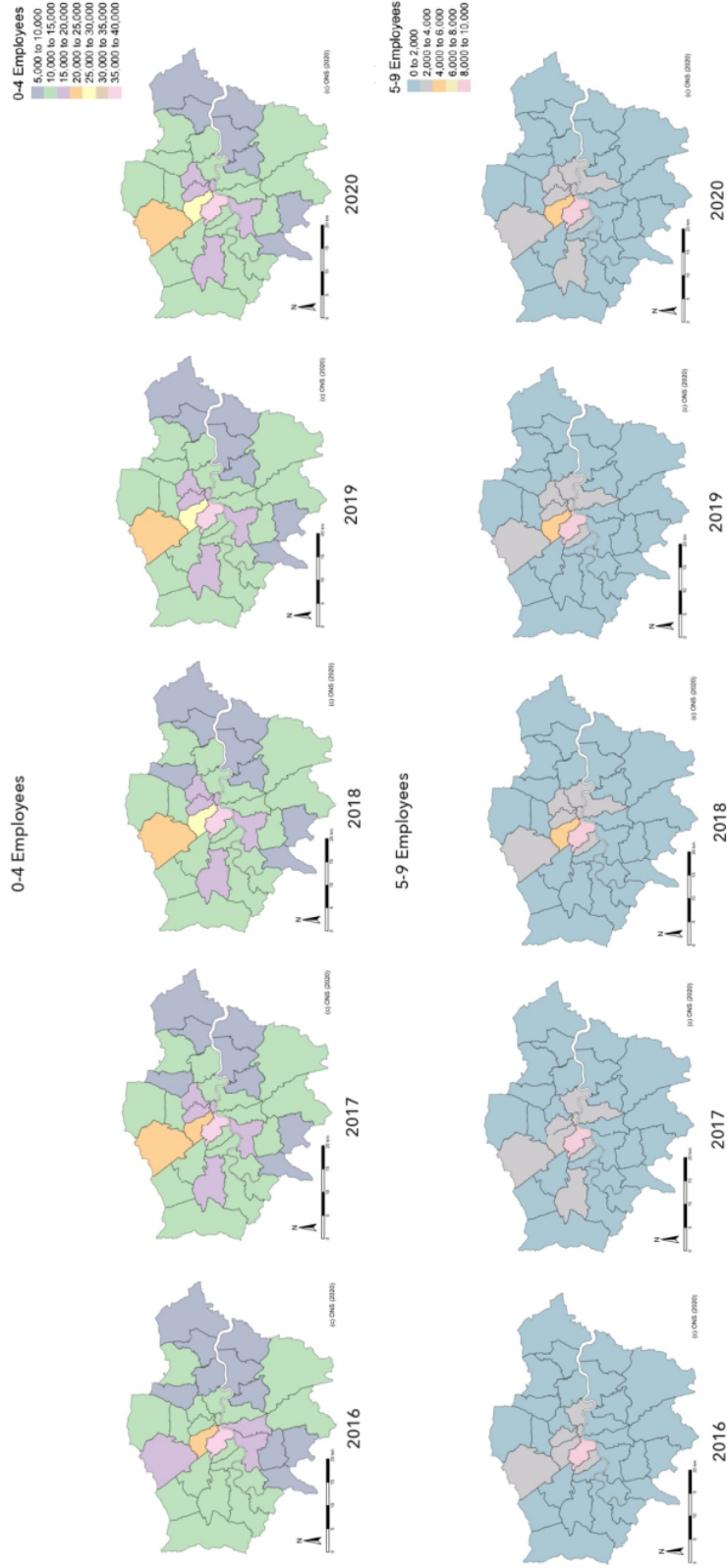


Figure 5 Maps showing the number of businesses in London by employment sizes (0-4 and 5-9)

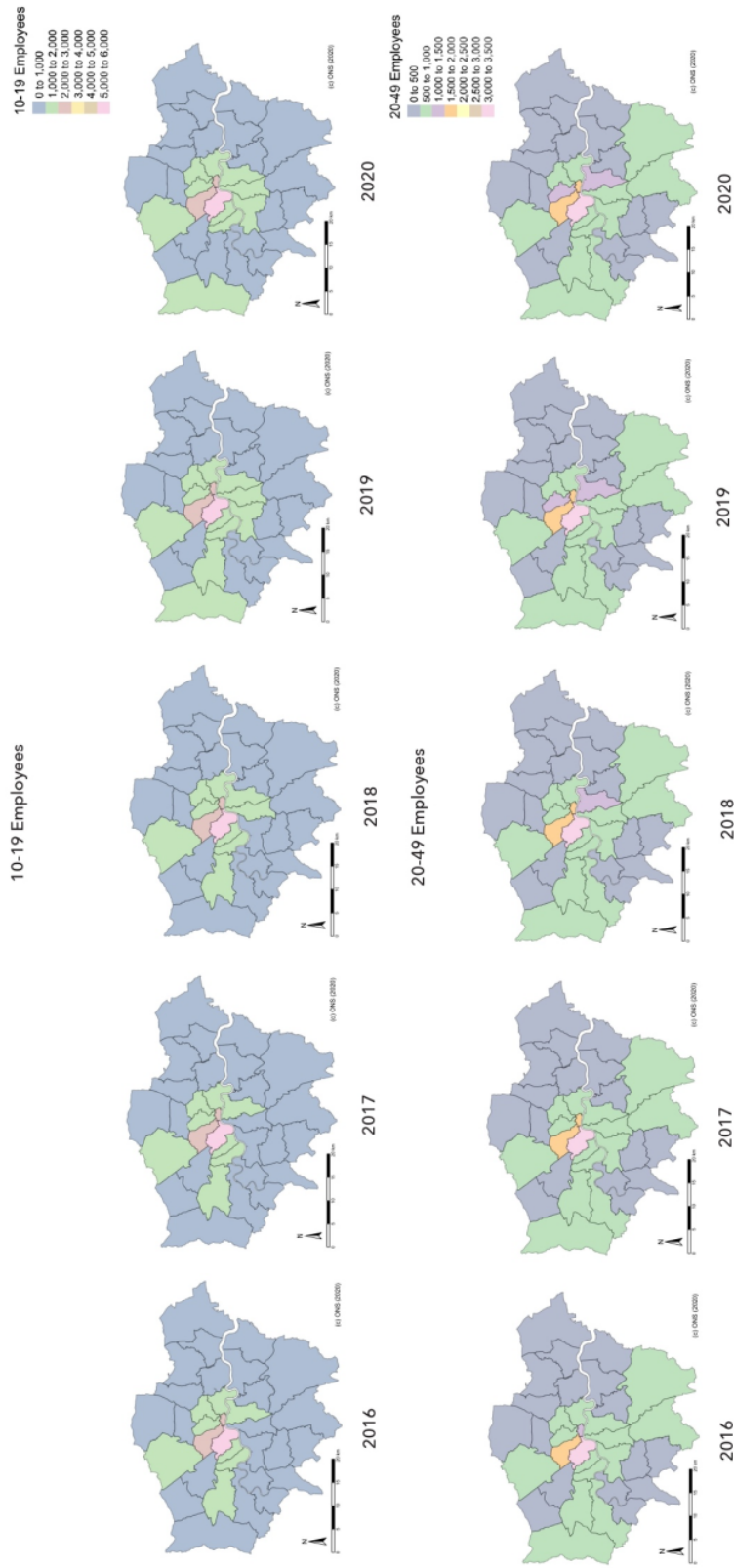


Figure 6 Maps showing the number of businesses in London by employment sizes (10-19 and 20-49)

## 5.2 How are Small Businesses Performing by Industry Sector?

To understand how and if different industry sectors have been affected by the pandemic, small businesses by sector have been analysed. Business industry sectors were grouped into two general industry groups: (1) services and (2) wholesale, logistics and transport (WLT) industries, as mentioned in section 4.2 and broken down in Appendix A.

### Number and percentage turnover of service businesses

Figures 7, 8 and 9 show the number and percentage turnover of businesses by service industry sectors. Overall, the number of businesses with 0 (registered) and above employees was estimated to remain stable. The most significant estimated change was seen in the number of unregistered businesses with 0 employees. In general, businesses with a higher number of employees had the highest percentage turnover across all service industry sectors. For example, accommodation and food service businesses with 20-49 employees were expected to contribute 10.5% of the total estimated turnover from all accommodation and food service businesses in 2020, compared with 2.75% from unregistered businesses with 0 employees (Figure 8). However, although the largest employee group size (20-49) generally had the one of the highest estimated turnovers across all service industry sectors, these businesses displayed a negative correlation over the 5-years prior to the pandemic. Interestingly, in 2020, the percentage turnover of these businesses did not follow this trend and was estimated to remain close to 2019 figures.

Moreover, the service industry sectors that did not follow this trend were: real estate; professional, scientific, and technical; education; human health and social work; arts, entertainment, and recreation and other service activities businesses, where businesses with fewer employees had the highest estimated percentage turnover. Unregistered education businesses with 0 employees, for example, contributed 28% of all education business turnover compared with businesses with 20-49 employees who contributed 10% (Figure 9).

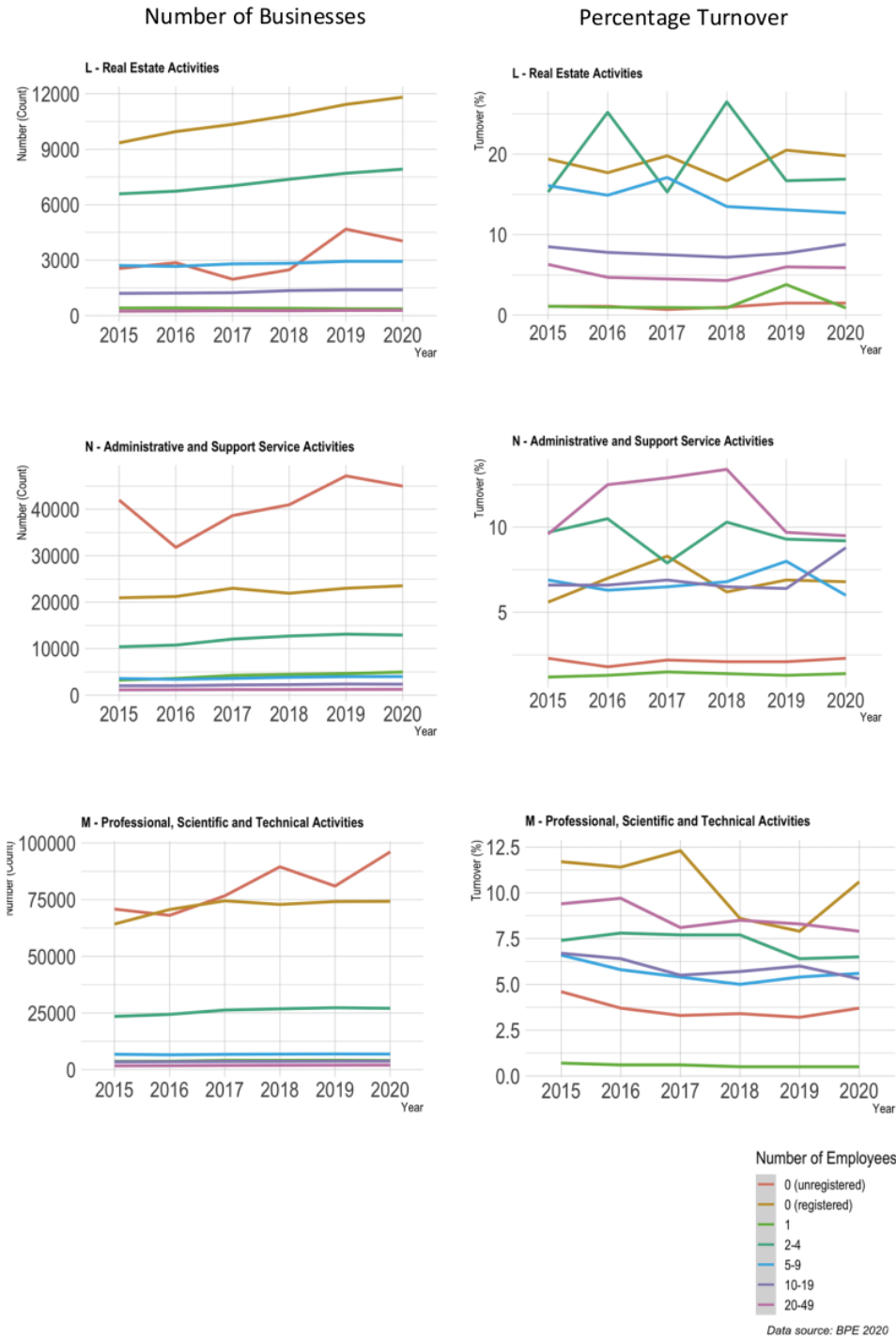


Figure 7 Number and turnover, as a percentage of the total turnover generated by that industry sector, of small businesses in London broken down into service sectors (real estate, professional, scientific, and technical, and administrative and support service activities)

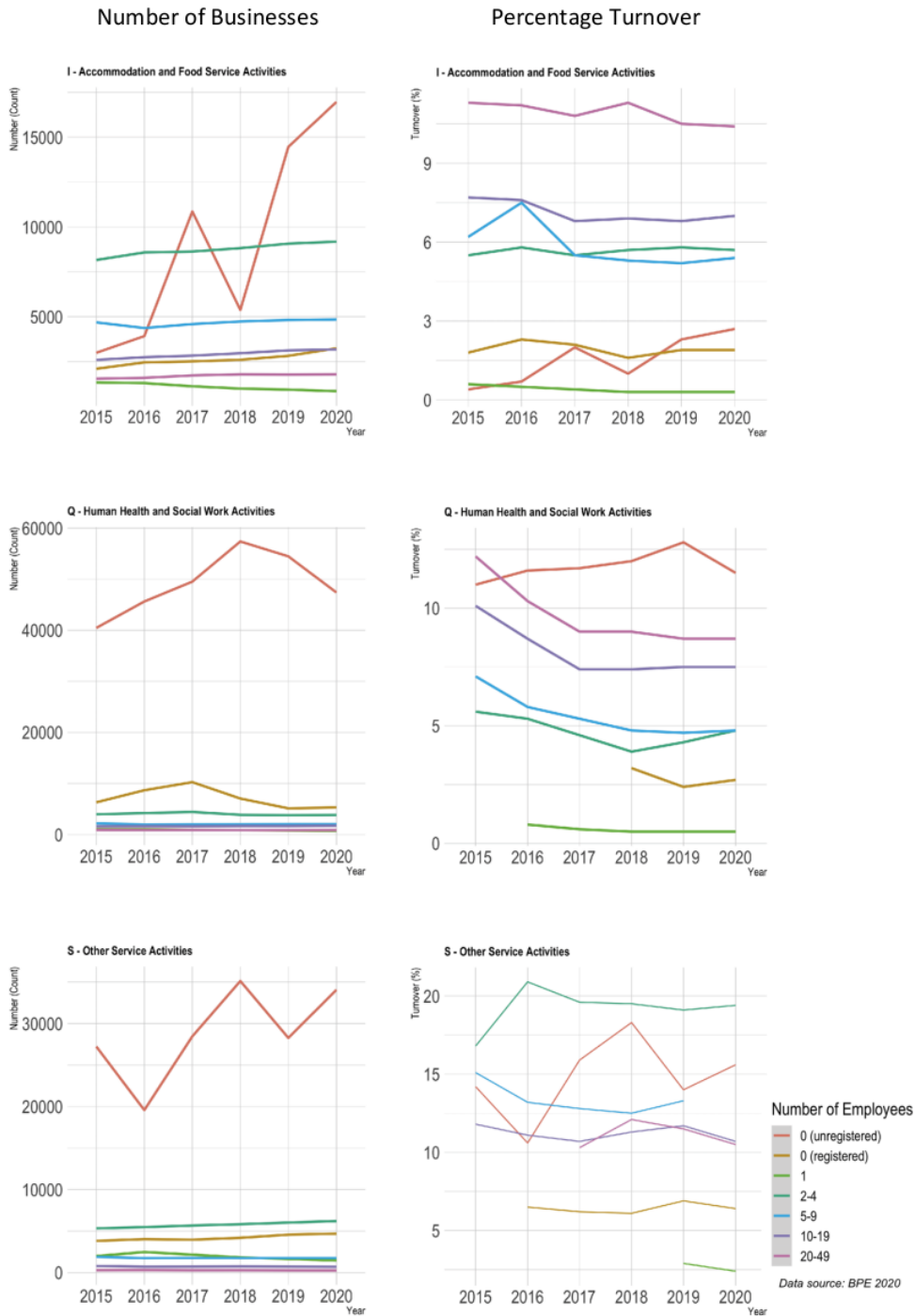


Figure 8 Number and turnover, as a percentage of the total turnover generated by that industry sector, of small businesses in London broken down into service sectors (accommodation and food service activities, human health and social work activities, and other service activities)

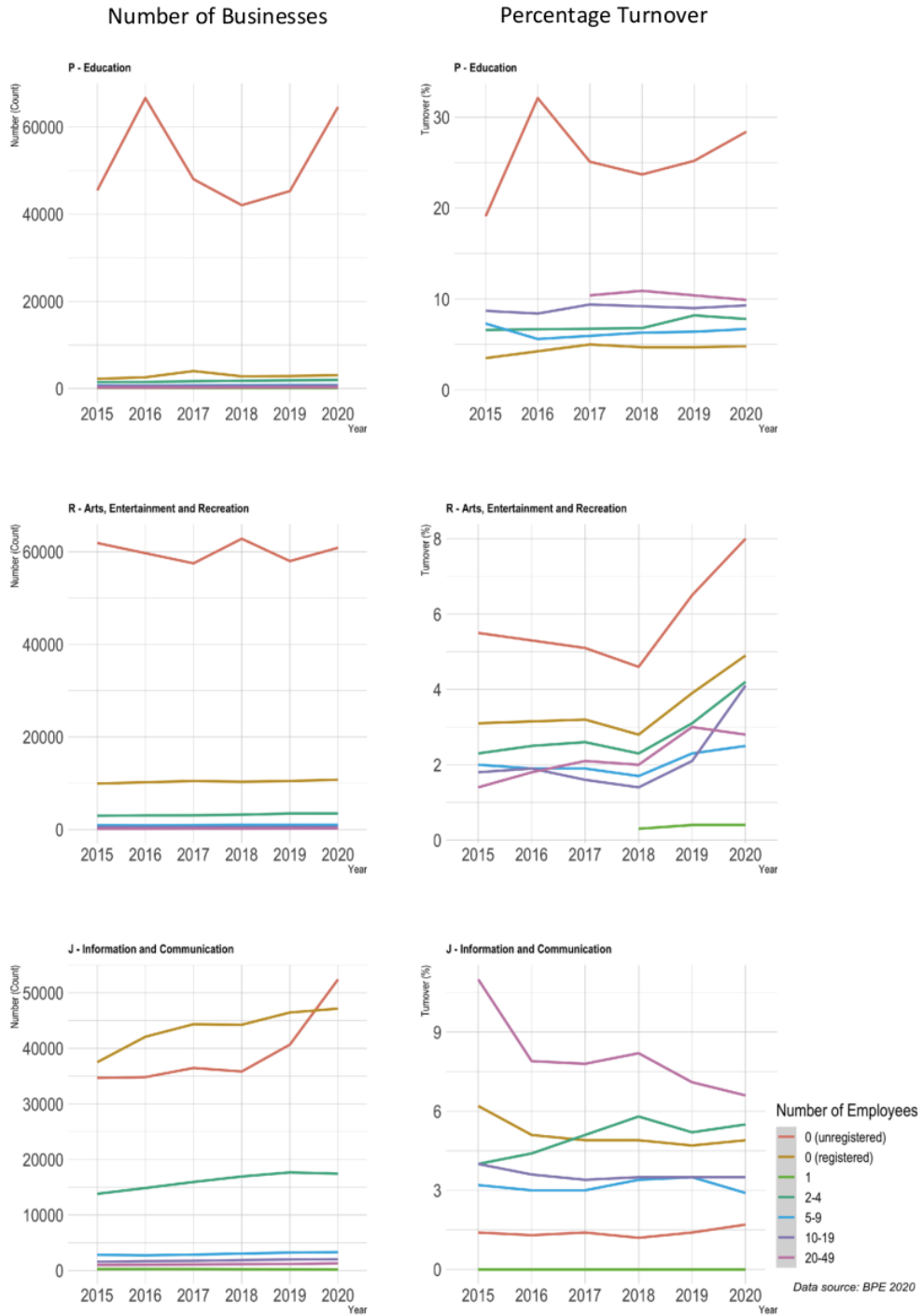
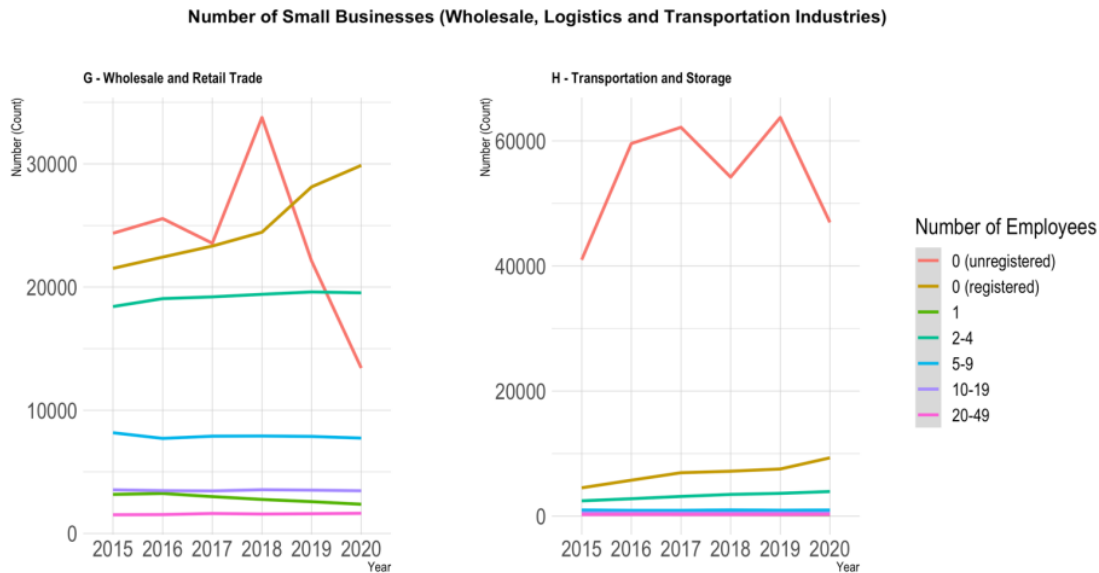


Figure 9 Number and turnover, as a percentage of the total turnover generated by that industry sector, of small businesses in London broken down into service sectors (education, arts, entertainment and recreation, and information and communication)

**Number and percentage turnover of wholesale, logistics and transport (WLT) businesses**

Figures 10 and 11 break down the industry sectors grouped under the WLT group. The number of registered businesses with 0 employees, and businesses with 1 and above employees remained stable. However, the number of unregistered businesses with 0 employees, for both wholesale and retail, and transportation and storage sectors was estimated to decline significantly from 2019 to 2020. Unregistered wholesale and retail businesses with 0 employees followed the same decline as the previous year (2018-2019), however, unregistered transportation and storage businesses with 0 employees were estimated to sharply decline despite an increase in the previous year.

Businesses with the highest number of employees had the highest estimated percentage turnover for both wholesale and retail trade, and transportation and storage sectors. However, wholesale and retail trade businesses with 10-19 employees were estimated to suffer a sharp decrease in percentage turnover from 2019-2020, despite an increasing trend in the previous years. Contrastingly, businesses in the same industry sector with 20-49 employees substantially increased from 2019-2020. Moreover, transportation and storage businesses with 5-9 employees, and unregistered businesses with 0 employees, were estimated to decrease further, following previous years' trends.



Data source: BPE 2020

Figure 10 Number of small businesses in London broken down into wholesale, logistics and transportation industries

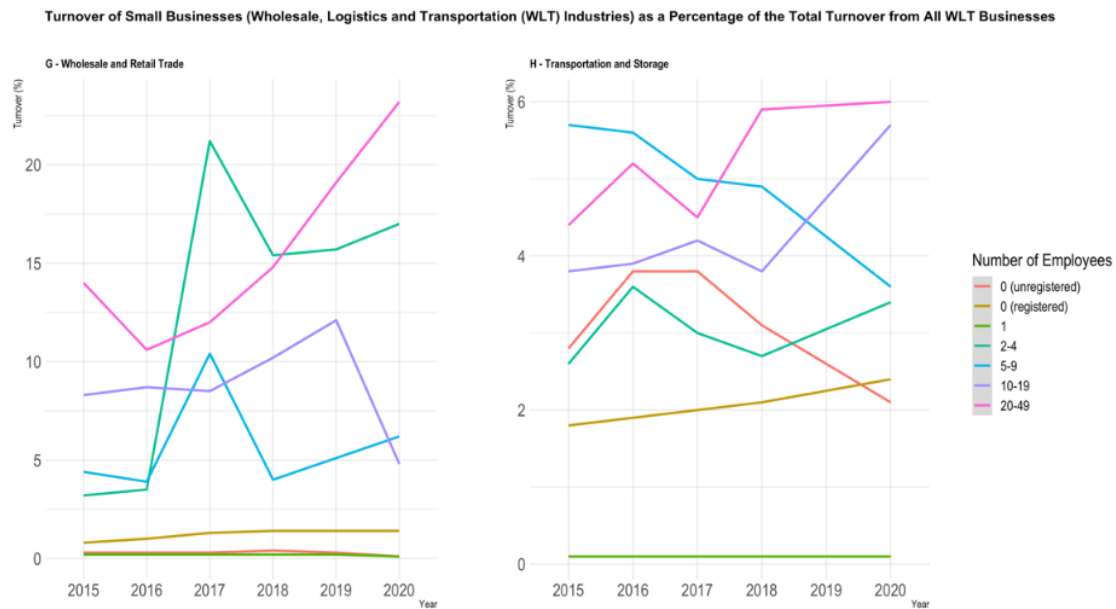


Figure 11 Turnover, as a percentage of the total turnover from all WLT businesses, of small businesses in London broken down into wholesale, logistics and transportation industries

### 5.3 How can Anchor Institutions Help Small Businesses? - Creating A Mapping Tool to Help Anchor Institutions

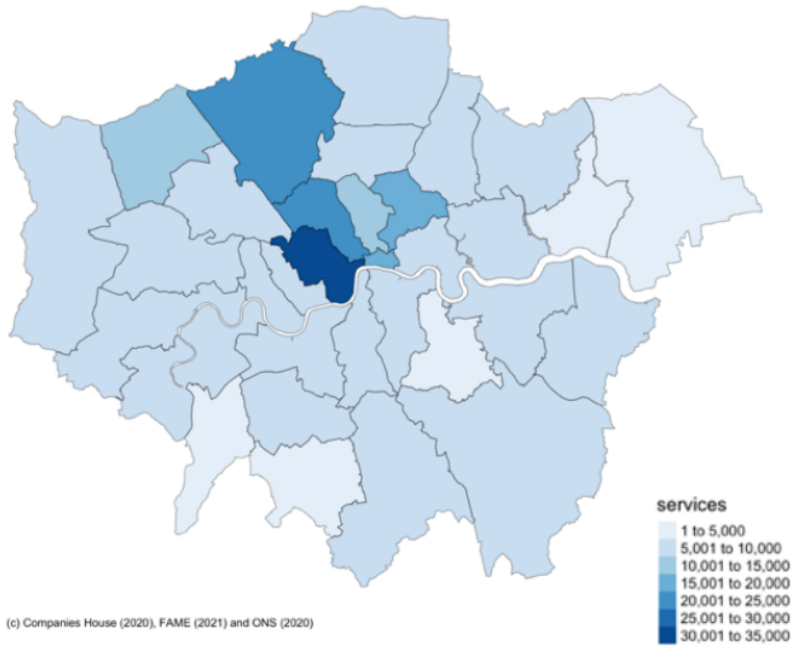
In order to help anchor institutions set and assess the effectiveness of their local procurement policies and targets, this research proposes a tool which geographically indicates where small service or WLT businesses are located. The tool uses the plotted locations of small businesses and anchor locations to identify the small businesses that are located within the anchor institution’s walkable and borough buffer areas. In combination with a list of successful tender businesses, the tool will allow anchor institutions to visually identify which small businesses they have offered tenders to, in comparison to the total number of small businesses from the same industry sector, thereby showing anchor institutions how effective their local procurement policies have been.

#### Small business industry clusters

Geographically, it is useful to see the concentration of businesses in each borough. Figure 12 shows that there is a concentration of both industry groups in Westminster, Camden, and Barnet. However, the distribution of service businesses across London is more evenly dispersed than WLT businesses which cluster in the north-west. From Figure 13, service and WLT business locations have been plotted so that they can be filtered down later when buffer areas are implemented. Anchor institutions may then use this to identify the location and number of small businesses by industry group in their local area. Together, Figures 12 and 13 indicate where small businesses by industry group are located in London.



Number of companies classified under the service industry



Number of companies classified under the wholesale, transport, and logistics industries

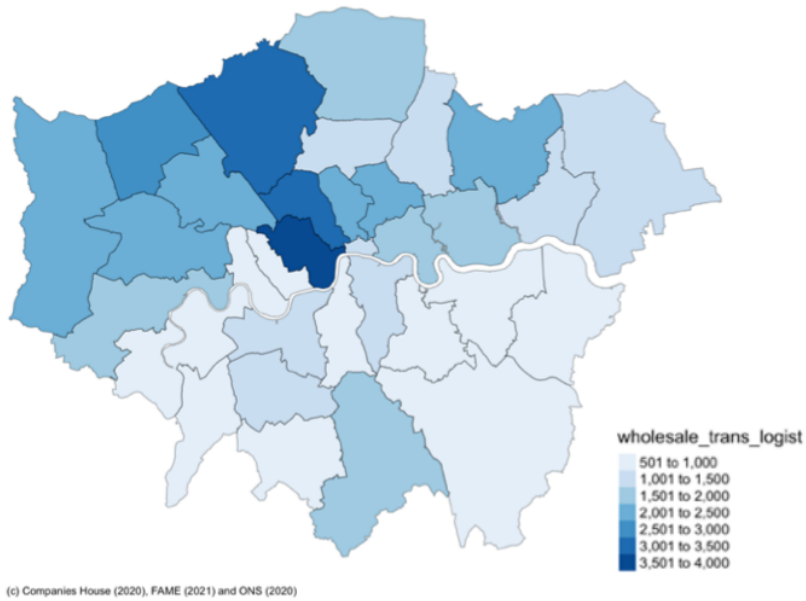


Figure 12 Number of small businesses in London by borough

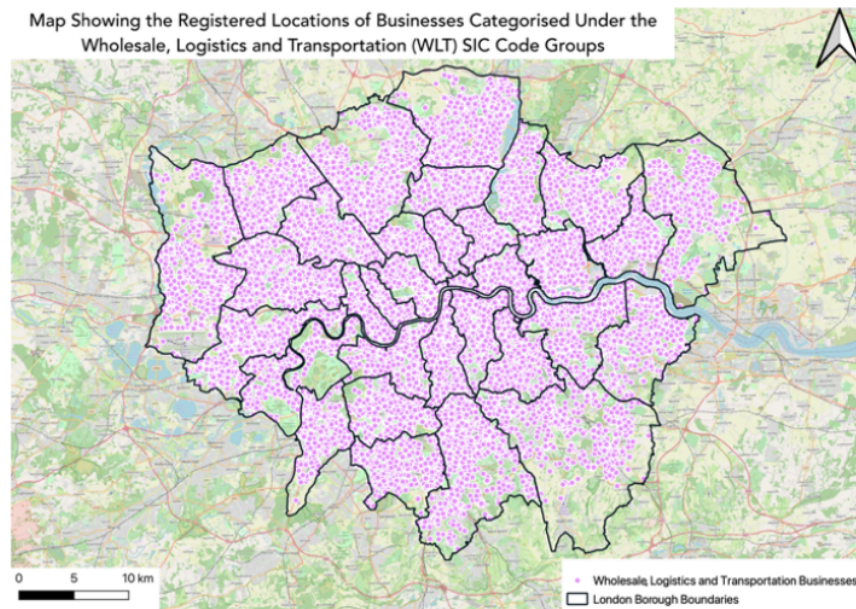
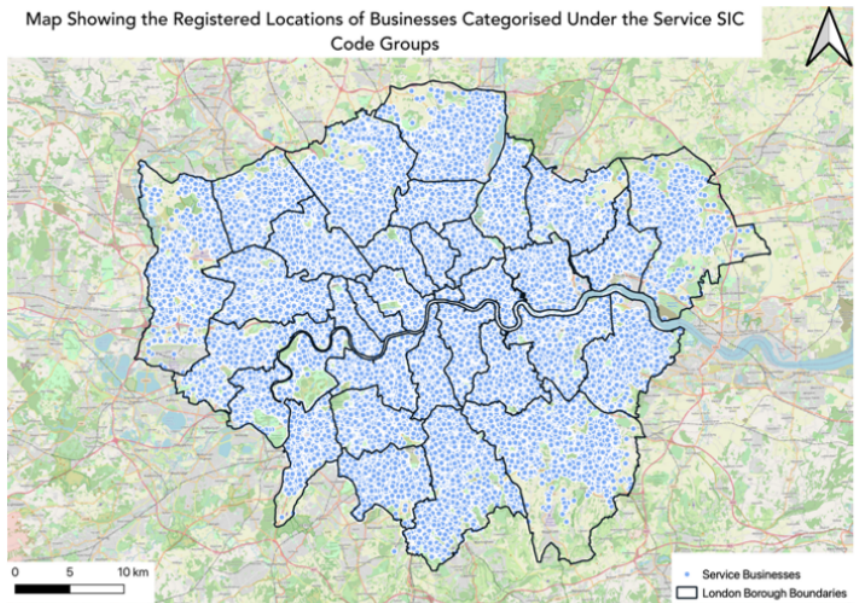
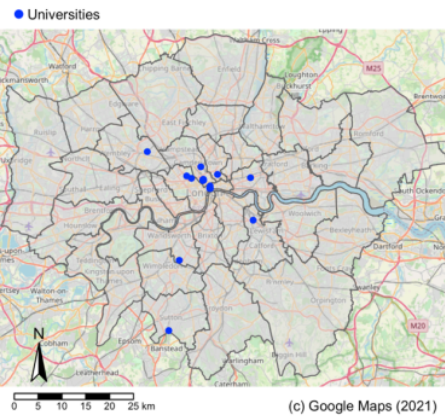


Figure 13 Location of small businesses in London

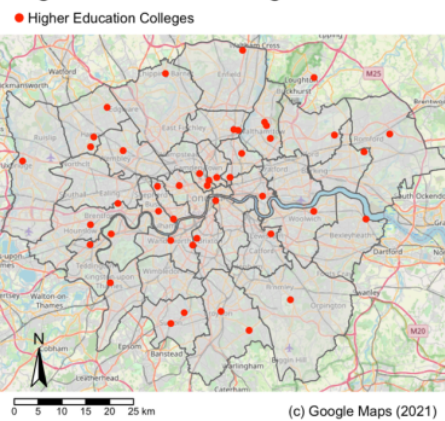
### Anchor institution locations

The distribution of anchor institutions varies for each institution. For example, Figure 14 shows that NHS and higher education college locations have an even distribution of locations, with locations covering outer London boroughs such as Bexley in the south-east. However, university locations are concentrated in central London with one just location in the south.

#### University Locations



#### Higher Education College Locations



#### NHS Locations

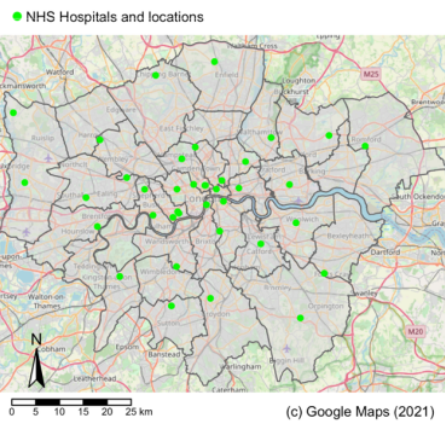


Figure 14 Locations of anchor institutions in London

### Anchor institution buffer areas

Figures 15, 16 and 17 show the walkable buffer areas around anchor institution locations.

The distribution of anchor locations thus dictates the total area of London that is covered by the walkable buffer areas. For example, university locations are clustered in the centre of London (Figure 17); therefore, they may not have an impact on the outer London boroughs. However, we can see that multiple central London boroughs are included within walking distance from the university location. This suggests that, although there is a cluster, universities could potentially have a wider reached impact on small businesses outside of their local borough.

While this is only a sample of the anchor institutions identified, it highlights the issue that some pockets of London (particularly the outermost areas) are not sufficiently covered. Further expansion of the buffer zones could be implemented, however, the distance would be further than 75 minutes of walking, which is considered to be more suited to other forms of transport, for example by vehicle. These 'missed' areas could be covered by the borough buffer areas.

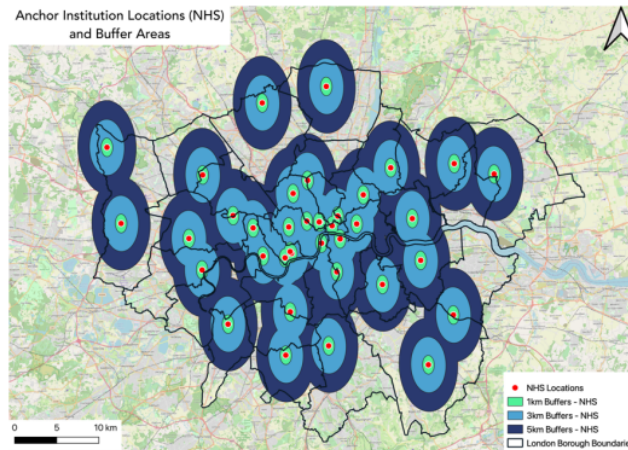


Figure 15 Anchor institution locations and walkable buffer areas (NHS)

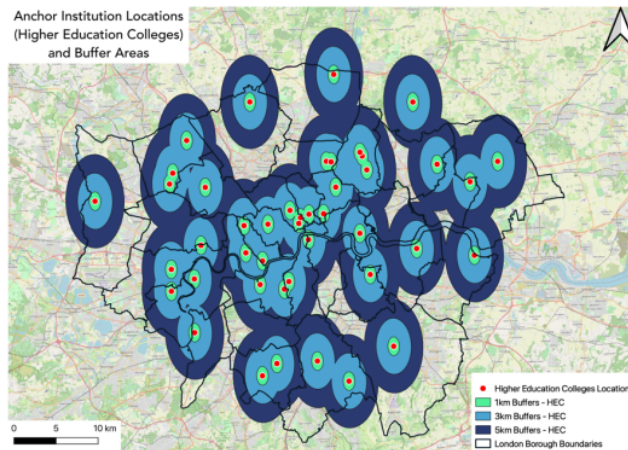


Figure 16 Anchor institution locations and walkable buffer areas (Higher Education Colleges)

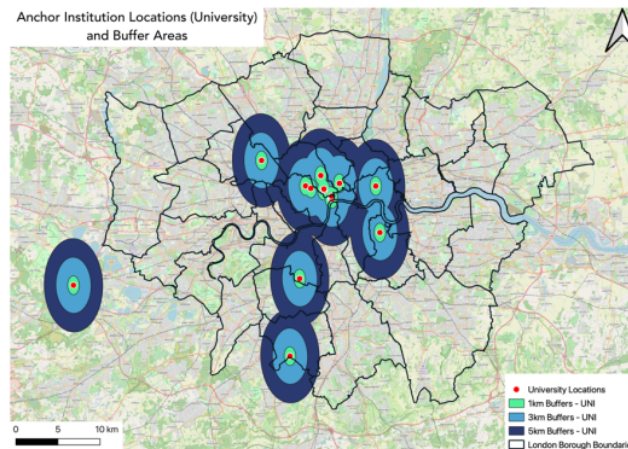


Figure 17 Anchor institution locations and walkable buffer areas (University)

### Anchor institutions and small businesses – walkable buffer areas

To show the number of, and what businesses are in walkable distance from anchor locations, small businesses were extracted by location (QGIS function) (Figure 18). For the purpose of this research, NHS locations (indicated by the red dots) have been chosen as an example due to a wide distribution of sample sites across London. The purpose of the walkable buffer areas is to show anchor institutions what and how many small businesses are within a walkable distance, should they require a service or product in close vicinity. Using this, institutions will be able to make informed decisions when setting local procurement targets and policies. Exporting the attribute table from QGIS (Figure 19) will enable anchor institutions to use the tool to see what and how many small businesses are located within walkable distance of their location. Combined with a list of businesses they have offered tenders to, anchor institutions will be able to see the proportion of small businesses within a walkable distance which have been successful.

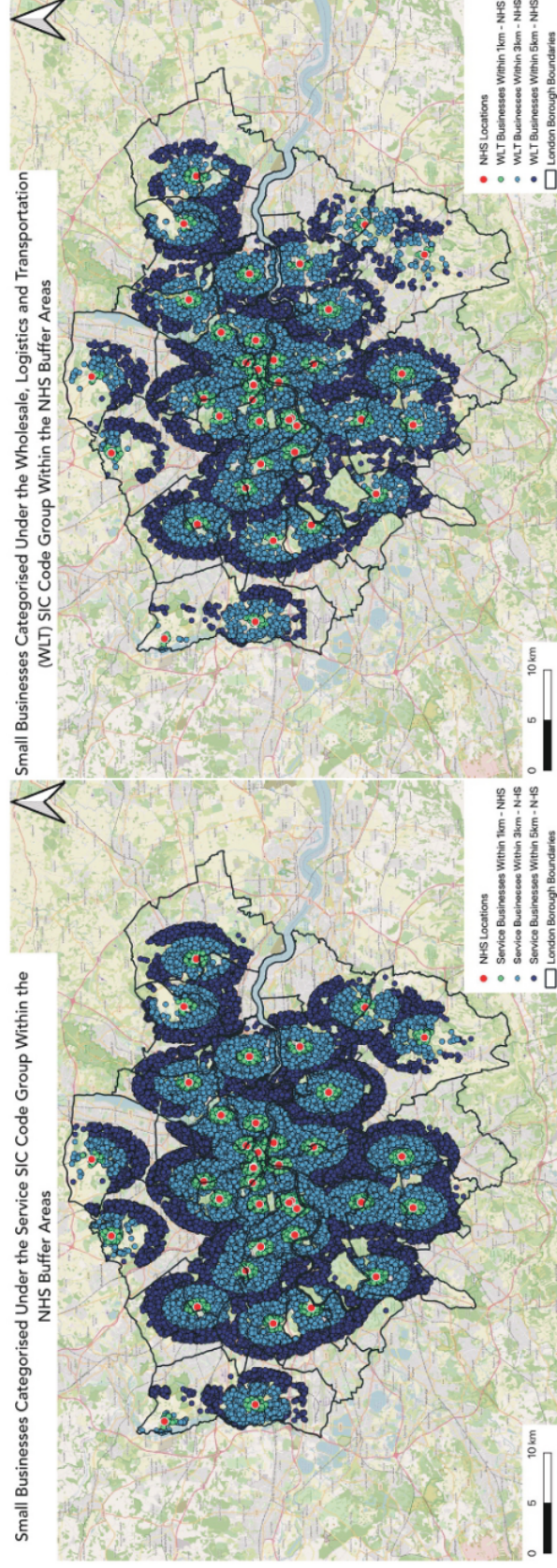


Figure 18 Example of small businesses in the service and wholesale, logistics and transportation industries captured within the anchor institution walkable buffer areas

Service Businesses Within 1km - NHS — Features Total: 76380, Filtered: 76380, Selected: 0

	company_name	company_number_r_o...	full_postcode	sic_code	ladcd
1	CHESTERHIL...	01039844	EN5 4BW	68100	E090000003
2	ALEXAN LI...	10455036	EN5 3EG	69202	E090000003
3	AVOCETS CO...	06773616	EN5 4EF	70210	E090000003
4	NICOMON C...	03676626	EN5 4EF	62012	E090000003
5	CHRISTOPHE...	06517443	EN5 4EF	69201	E090000003
6	LUX MANOR ...	11205437	EN5 2RY	68209	E090000003
7	CONNECT S...	07781562	EN5 2DE	82190	E090000003
8	BRIANCO SE...	00384006	EN5 4DL	68209	E090000003
9	CHALK FARM...	00807161	EN5 4DX	68209	E090000003
10	ASHGOAL LI...	01417066	EN5 4DJ	70229	E090000003
11	J.A.CLARK & ...	01858218	EN5 4BX	96030	E090000003
12	MELANIES E...	02024204	EN5 4DJ	56210	E090000003
13	TEAMREALM...	02078447	EN5 4DX	68209	E090000003
14	DAWNCHUR...	02194080	EN5 4DR	68320	E090000003
15	LASER BUSIN...	02460866	EN5 3BB	62020	E090000003
16	VISUAL INFO...	03051006	EN5 2PX	62012	E090000003

WLT Businesses Within 1km - NHS — Features Total: 10268, Filtered: 10268, Selected: 0

	company_name	company_number_r_o...	full_postcode	sic_code	ladcd
1	HUNTSPIN LI...	00839695	EN5 3BA	46160	E090000003
2	P.L.PLASTICS...	01543570	EN5 4EP	46900	E090000003
3	T & H MOTO...	01618735	EN5 4NL	45200	E090000003
4	NJ STONES (...)	03697672	EN5 3EA	46900	E090000003
5	HOME AND ...	07618950	EN5 2AT	47910	E090000003
6	HAPPY FROG...	08128765	EN5 2QF	47910	E090000003
7	VL CIP LIMIT...	08574085	EN5 2AL	49410	E090000003
8	SURPLUSDRI...	09412758	EN5 4JL	46510	E090000003
9	WHOLE TRA...	09439196	EN5 4EP	49410	E090000003
10	ALL SORTS ...	09575804	EN5 4BW	47190	E090000003
11	LARREN (UK)...	09694573	EN5 3BP	46900	E090000003
12	VA-TRANS LTD	09816037	EN5 2SS	53202	E090000003
13	MINTED ME ...	10467981	EN5 2QU	47910	E090000003
14	M & L LOND...	10531488	EN5 4DB	46370	E090000003
15	DCAR LOND...	10772973	EN5 3EG	47890	E090000003
16	AFOPE ATOY...	10856312	EN5 2DF	47990	E090000003

Figure 19 Example attribute tables from QGIS which identify service and wholesale, logistics and transportation industry small businesses captured within the anchor institution walkable buffer areas

### Anchor institutions and small businesses – borough buffer areas

For products and services that could be sourced from further away, it would be useful for anchor institutions to identify how many, what and where small businesses are within their local borough (Figure 20). Using the borough buffer area, institutions will be able to clearly assess the effectiveness of their local procurement policies as borough boundaries will be clearly defined. Using the exported attribute table from QGIS (Figure 2.1) paired with data on the small businesses they have offered tenders to, anchor institutions in the City of London, for example, will be able to identify what proportion of the total number of relevant businesses they have impacted. Consequently, they will be able to assess the effectiveness of their local procurement policies.

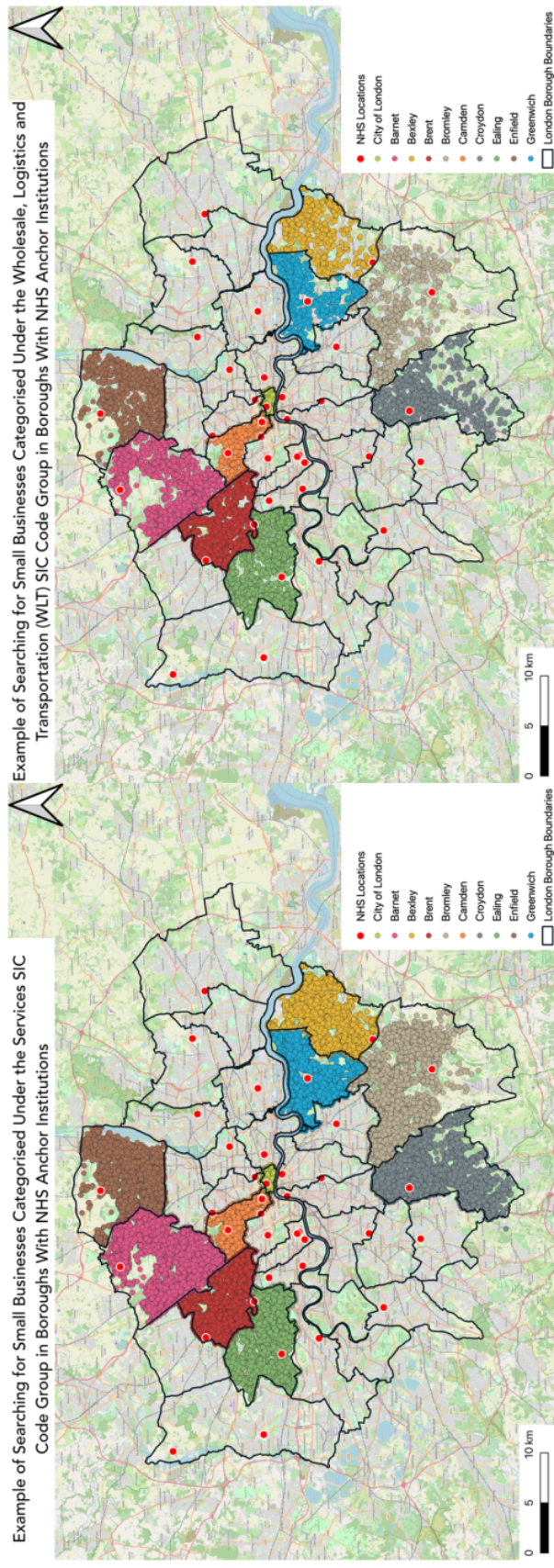
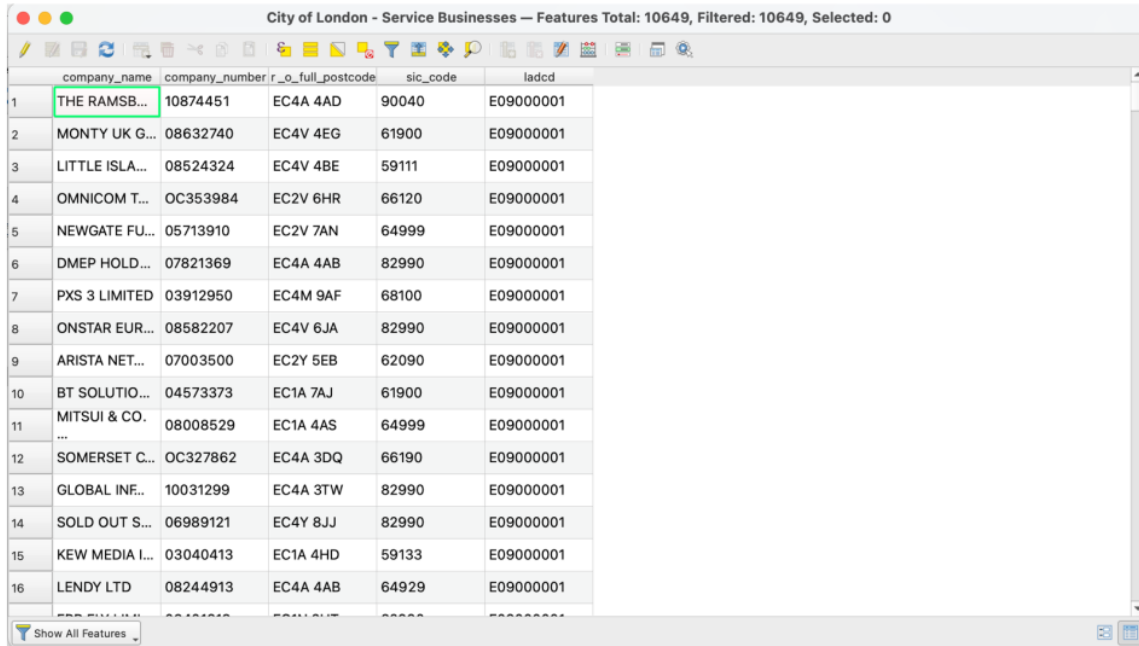


Figure 20 Example of small businesses in the service and wholesale, logistics and transportation industries captured within the anchor institution borough buffer areas



City of London - Service Businesses — Features Total: 10649, Filtered: 10649, Selected: 0

	company_name	company_number	r_o_full_postcode	sic_code	ladcd
1	THE RAMSB...	10874451	EC4A 4AD	90040	E09000001
2	MONTY UK G...	08632740	EC4V 4EG	61900	E09000001
3	LITTLE ISLA...	08524324	EC4V 4BE	59111	E09000001
4	OMNICOM T...	OC353984	EC2V 6HR	66120	E09000001
5	NEWGATE FU...	05713910	EC2V 7AN	64999	E09000001
6	DMEP HOLD...	07821369	EC4A 4AB	82990	E09000001
7	PXS 3 LIMITED	03912950	EC4M 9AF	68100	E09000001
8	ONSTAR EUR...	08582207	EC4V 6JA	82990	E09000001
9	ARISTA NET...	07003500	EC2Y 5EB	62090	E09000001
10	BT SOLUTIO...	04573373	EC1A 7AJ	61900	E09000001
11	mitsui & CO. ...	08008529	EC1A 4AS	64999	E09000001
12	SOMERSET C...	OC327862	EC4A 3DQ	66190	E09000001
13	GLOBAL INF...	10031299	EC4A 3TW	82990	E09000001
14	SOLD OUT S...	06989121	EC4Y 8JJ	82990	E09000001
15	KEW MEDIA I...	03040413	EC1A 4HD	59133	E09000001
16	LENDY LTD	08244913	EC4A 4AB	64929	E09000001

Show All Features

Figure 21 Example attribute table from QGIS which identifies service industry small businesses within the borough buffer areas (City of London)



## 6. Discussion

This discussion section critically analyses how the results of the analysis answer the questions posed at the beginning of the paper. This section also covers the limitations of the analysis and further research that could be carried out in the future.

The wider research question, “How can anchor institutions help small businesses post COVID-19?” was broken down into four smaller themes:

1. What are the challenges to small businesses’ survival and growth?
2. How are small businesses performing by industry sector?
3. What is the role of anchor institutions?
4. How can anchor institutions help small businesses?

### 6.1 What Are the Challenges to Small Businesses’ Survival and Growth?

It is clear that small businesses were already facing several challenges prior to the pandemic, for example, uncertainties relating to market demand and financing. However, this research has found that the pandemic has not only exacerbated existing challenges, but has also given rise to new ones. Existing issues around uncertainty have been augmented, owing largely to the turbulence caused by national lockdowns and restrictions, and subsequent unpredictable demand for goods and services, impacting on businesses’ access to early-stage financing. Furthermore, changes to the way in which entrepreneurs socialise has impacted on entrepreneurs’ ability to grow their network and given rise to unequal business growth, as entrepreneurs who were unable react to the rapid digitalisation of entrepreneurship were subsequently unable to compete.

### 6.2 How are Small Businesses Performing by Industry Sector?

It is clear that all small businesses require support, however, this research has shown that service and WLT industry group sectors have been impacted differently by the pandemic. The analysis suggests that small businesses with the highest employee sizes in the service industry group require support, as the percentage turnover of these businesses was estimated to have a negative correlation from 5 years prior to the pandemic (2015-2019). As mentioned, the difference in percentage turnover of these businesses from 2019 to 2020 was minimal. This could be due to the government financial support packages, such as the JRS which paid employee wages and relieved some financial burden from business owners. However, as these service businesses have more employees, this negative correlation in percentage turnover, in conjunction with the unpredictable demand for goods and services as a result of the pandemic, could result in these companies making large-scale redundancies once the JRS scheme ends in September, and short-term financial support is discontinued.

Small businesses with the lowest employee sizes in the WLT industry group also require support, as the analysis shows a significant decrease in the estimated number of businesses from 2019 to 2020. These decreases in the number of businesses with the smallest employee sizes may indicate a reduced survival rate of start-up businesses in these industry sectors, suggesting that they require the most support to overcome challenges related to the early stages of business development. Two of these challenges were explored in the literature review and have both been exacerbated by the pandemic: growing and maintaining networks to benefit from the sharing of knowledge and access to investors, and dealing with uncertainty related to financing. These challenges limit an entrepreneur’s ability to build a strong and successful business.

Furthermore, in 2020 the percentage turnover of businesses with 10-19 employees in the wholesale and retail trade industry sector was estimated to decrease substantially in contrast with businesses with 20-49 employees, which was estimated to be the opposite. This suggests that the pandemic had an impact on these businesses, and could be explained by businesses with 20-49 employees having had more resources to continue work during the pandemic, in comparison to businesses with 10-19 employees. Alternatively, this could be explained by retail store closures, which were already happening pre-pandemic, being accelerated as a result of COVID-19 lockdowns and causing a skew in the analysis. Nonetheless, this change in the estimated percentage turnover could result in companies with 10-19 employees also making large redundancies once the JRS scheme ends in September, similar to businesses with the largest employment size in the services industry group.

### 6.3 What is the Role of Anchor Institutions?

In order to combat the challenges around uncertainty, public investment has been proposed to boost small businesses and subsequently encourage more private investment (Collier and Mayer, 2020)). However, although this method of raising capital for small businesses seems like a reasonable strategy to pump funding into already struggling businesses, the government has already spent, and are expected to spend, huge amounts to fund existing COVID-19 schemes, such as the JRS and the potentially high default rate of the BBLS. Therefore, whether they will be able to further fund small businesses is uncertain, as any additional borrowing (on top of borrowing due to COVID-19 (BBC, 2021)) by the government to fund small businesses may push the UK into an economic crisis or cause huge budget cuts to other public sector finances (Emmerson and Stockton, 2021). Alternatively, anchor institutions can help small businesses by setting local procurement policies, as this is funding which will be inevitably spent in order for institutions to function. They can achieve this by assessing their current spend on procurement from small and larger companies, and how much of the procurement spend is being wasted, as demonstrated by CLES and PCC (2019).

While private institutions are encouraged to set local procurement policies and targets, it is acknowledged that private institutions have an obligation to buy best value products and services and spend donor's funding cost-efficiently. In some cases, a large business may offer a better value product than smaller businesses, and therefore, it may be a conflict of interest between their donors and their local procurement policies. Consequently, as private institutions, such as universities, are at the centre of knowledge production, this means that they are in a position to nurture small businesses and provide support from an administrative perspective. Some universities already do this, for example UCL's (2021) Hatchery start-up incubator. The existence of these incubators provides a recognisable setting which brings together a wide range of relevant people into one space. Therefore, incubators support small businesses with regards to building their social network, as entrepreneurs are able to gather together to find advice and guidance from others and meet investors who can reduce financial uncertainties. However, while these incubators attempt to give start-ups a boost, the intense support provided to small businesses means that once these businesses leave the incubator space, they may struggle to independently develop their business (Mcadam and Marlow, 2007). Therefore, the support which incubators provide needs to be structured in order to push entrepreneurs to make independent business decisions. Moreover, the incubator application process is usually highly competitive. This restricts the number of businesses which incubators can support, leading to a divide in the success of incubated and non-incubated businesses (Lukeš, Longo and Zouhar, 2019). In order to increase the accessibility for small businesses to receive business support, altered forms of these incubators should subsequently be provided so that

entrepreneurs can access the necessary advice they require, as well as minimise the gap between incubated and non-incubated businesses.

Consequently, while public and private institutions have different roles to play in helping small businesses. Both public and private anchor institutions can publish tangible strategies to help small businesses by setting local procurement policies and targets. As a result of this, this solution was considered to be the most suitable way for anchor institutions in London to help small businesses.

#### 6.4 How Can Anchor Institutions Help Small Businesses?

##### Creating A Mapping Tool to Help Anchor Institutions

As mentioned, both public and private institutions can help small businesses by clearly setting out their local procurement policies and targets. This supports small businesses because it holds institutions accountable to procuring products and services from small and local businesses.

A tool, which shows the location of small businesses and anchor locations, would allow institutions to set ambitious and targeted local procurement efforts for small businesses in industries which require the most help by creating easy to access information on the number and location of small businesses. The two buffer areas, walkable and borough, were chosen to cater to the different preferences with regard to an institution's product and service requirement with travelling distance and therefore mode of transport being a main consideration. The walkable buffer areas can be used by anchor institutions to identify required services/products that are in close proximity, while the borough buffer areas can be used to identify services/products which can be delivered from further away. Institutions would be able to use this tool to identify the success of their local procurement policies by comparing how many small, local businesses have applied for and obtained tenders out of the total number of small businesses in their local area. The tool would visibly indicate what proportion of the small businesses in the institution's locality their local procurement policies have impacted and thus how effective their local procurement policies have been.

#### 6.5 Limitations

This research topic is novel, and so new data is being released continuously. As such, this presents one of the main limitations to this report, in that these observations may be subject to change within a short period of time, particularly due to the unpredictable nature of the pandemic and its impact.

Another main limitation of the analysis was the use of registration postcodes in comparison to operational locational data. This presents two issues which reduce the accuracy of the tool. Firstly, small businesses do not necessarily operate at the location where they have registered their business. Secondly, postcodes are difficult to map as they can refer to multiple addresses within an area. This meant that the data needed to be aggregated into boroughs. To overcome this, an attempt to link postcodes with longitude and latitude coordinates was done in the analysis, however, another limitation was that the longitude and latitude of some postcodes could not be identified as they had been recently added. Therefore, some businesses could not be mapped, and this data was lost. The tool could be improved if operational address data was used instead of registration postcodes. To source this data, web-scraping and text mining tools can be used to take material from online sources and derive business addresses. This issue could not be solved within the duration or scope of this project. Once this data is made available, it would be useful for the registration postcodes to be substituted with operational addresses for a more accurate map identifying where small businesses are located.

Estimated figures for the number of businesses and business turnover were used to show how businesses in London were performing. These figures only provide an estimated indication of how businesses are expected to perform and do not reflect how businesses are actually performing. Further analysis using comparison figures could have been used, for example, comparing the FAME dataset with the BPE 2020 data, however, this was out of scope for this analysis due to a lack of time.

Another limitation was the lack of distinction within the general industry groups' sectors, for example, the combination of supermarkets and retail shops within the WLT industry group. This means that anchor institutions will not be able to differentiate between the different types of businesses within each industry sector, which has implications on the usability of the tool to enable anchor institutions to compare like with like, and on the industry sector analysis as certain sub-industries within industry sectors may skew the results of the analysis, for example, the significant decline of retail. The SIC coding system may consequently be too broad in describing business industries (Nathan and Rosso, 2015), and therefore could have been further separated to better realise the differences between each subtype of industry sector. This would allow anchor institutions to have a better understanding of how small businesses are performing by industry and how many businesses in each industry are in their localities.

### 6.6 Further Work

As mentioned, further development would be of use to update the current data to improve the accuracy and reliability of the small business analysis and subsequently the tool for long-term use.

Additionally, further analysis might also be conducted to improve our understanding of how anchor institutions can help small businesses by including analysis around the influence of anchor institutions on the locality where a small business operates. One way this could be done is by analysing whether there is a higher concentration of certain businesses surrounding anchor institutions (i.e., hospitals and healthcare businesses). Alternatively, research surrounding the performance of small businesses in the presence of anchor institutions can be studied through an examination of the annual turnover of businesses with anchor institution presence, compared with areas where there is no anchor institution.

## 7. Conclusion

In conclusion, the pandemic has exacerbated and introduced new challenges to business survival and growth. COVID-19 has unexpectedly accelerated the digitalisation of entrepreneurship, meaning that small businesses who were unable to, or did not have access to the right resources to be able to, adapt at speed to the new way of networking, are now at a disadvantage. Nevertheless, this challenges entrepreneurs' ability to grow and maintain their social networks, which has subsequently impacted on entrepreneurs' ability to improve their business administration knowledge. This has further impacted on the uncertainties that entrepreneurs face in regard to obtaining financial investment, since entrepreneurs' ability to raise finance relies on their ability to network and meet with investors.

Analysis conducted as part of this research suggests that service and wholesale, logistics and transportation (WLT) industry group sectors have been impacted differently by the pandemic. The percentage turnover of businesses with more employees in the service industry group sectors was estimated to decrease minimally in 2020, despite a strong negative correlation in the years prior to the pandemic, possibly due to the COVID-19 financial support measures implemented, such as the JRS scheme. This raises concerns about how these companies will perform post pandemic when these support measures are discontinued. Additionally, small businesses with the smallest employee size in the WLT industry group sectors were estimated to have significant decreases in the number of businesses in 2020, suggesting that these businesses struggle in regard to the early stages of business development (business survival and growth). Finally, the percentage turnover of businesses in the wholesale and retail trade industry sector with 10-19 employees were estimated to decrease substantially in 2020, while the percentage turnover of businesses with 20-49 employee was estimated to substantially increase. This suggests that the latter may have benefitted from a greater access to resources, and therefore capabilities in terms of work during the pandemic, or that the analysis was skewed due to the extreme situations of some sub-industries within the sector. This decrease in estimated turnover gives rise to concerns about large scale redundancies, should the businesses with 10-19 employees struggle to recover.

Anchor institutions can be broken down into public and private institutions. Both have important roles to play which dictate the best way anchor institutions can help small businesses. However, both public and private institutions can set local procurement policies and targets which will help hold institutions accountable for their procurement spending. These can be identified by analysing how much of previous procurement spend was spent on small businesses compared to large ones and making sure to minimise procurement spend leakage. However, public institutions may find buying small and local more beneficial than private institutions because in return for spending local, they may see an increase in spending income through business tax, and investment into the local economy. Private institutions on the other hand may experience conflict of interest because of their obligation to spend donor's funding cost-efficiently. In some cases, this means choosing a large business over a small business. However, this does not mean that private institutions cannot or should not set local procurement policies. Nevertheless, private institutions can alternatively help small businesses by offering services such as business incubators, which support entrepreneurs by providing them with networking opportunities and other amenities to support and progress their business.

To enable anchor institutions to target outreach and engagement efforts, the research has developed a tool which will support anchor institutions to make informed decisions about setting and assessing the effectiveness of their local procurement policies and targets. Using the tool, they will be able to see the locations of small businesses in relation to anchor institution locations, and therefore, how many small,

local businesses they have offered service/product tenders to out of the total number of small businesses in their local area. The tool uses buffer areas to isolate the businesses which meet procurement requirements in terms of distance (locality) and industry. This will allow anchor institutions to identify where and what small businesses are in their locality, within walkable distance and by borough, and subsequently act as an enabler for anchor institutions to better support small businesses post COVID-19.

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## Appendix A –SIC Code Groups and Breakdown

### Services (I, P, Q, R, S, J, K, L, M, N):

I/R - Leisure (accommodation and food services, creative, arts, entertainment, libraries, gambling, sports and recreation, amusement) 55,56,90,91,92,93

Q - Social work (human health, residential care, social work) 86,87,88

P - Education 85

S - Other services (membership, computer, personal and household repair, other personal activities) 94,95,96

J - Publishing 58

J - Entertainment production (motion picture, video, tv, programming and broadcasting) 59,60

J - Telecommunications 61

J - Computer programming 62

J - Information service 63

K - Financial and insurance (financial, insurance, auxiliary) 64,65,66

L - Real estate (real estate) 68

M - Professional (legal, management, advertising and market research, architectural and engineering) 69,70,71,73

M - Scientific (research and development, veterinary) 72,75

M - Other (professional, scientific, technical activities) 74

N - Rental and leasing 77

N - Employment 78

N - Travel (agency/operators) 79

N - Security 80

N - Building services (landscaping) 81

N - Business support (office administrative/office support/business support) 82

### Wholesale and Retail Trade, Transport, logistics (G, H):

G - Vehicle wholesale 45

G - Non-vehicle wholesale 46

G - Retail 47

H - Land transport 49

H - Water transport 50

H - Air transport 51

H - Transport warehousing 52

H - Postal/courier 53

### Manufacturing (C, F):

C - Consumables (food, beverages, tobacco) 10,11,12

C - Textiles (textiles, leather) 13,15

C - Wearing apparel 14

C - Wood (wood, paper) 16,17

C - Recorded media 18

C - Chemicals (petroleum, chemical products) 19,20

C - Pharmaceutical 21

C - Rubber 22

C - Non-metallic-Mineral 23

C - Metal (manufacture of basic metals, fabricated metal products) 24,25

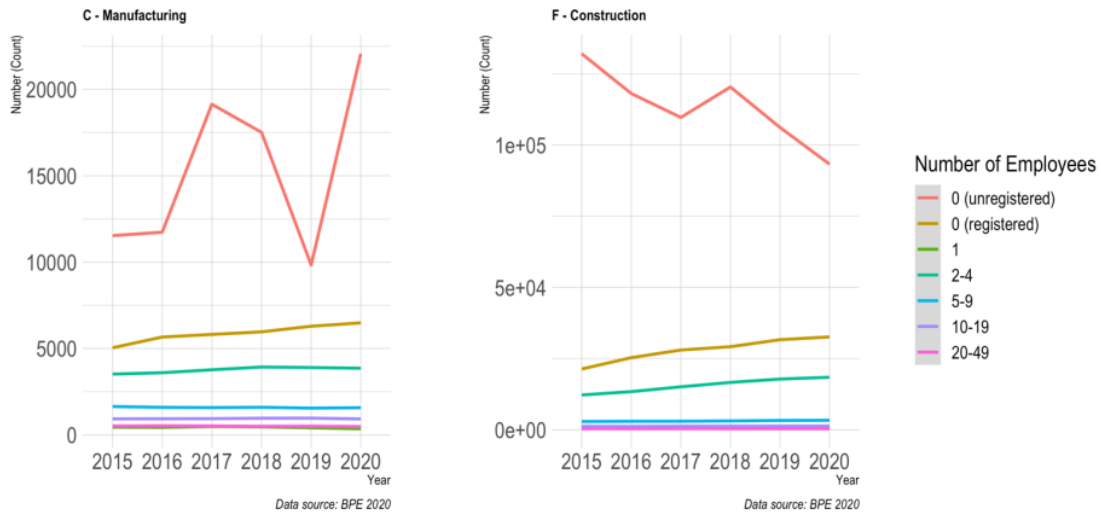
C - Electronics (computer, electronic and optical products, electrical equipment) 26,27  
C - Machinery 28  
C - Transport (motor vehicles, trailers, semi-trailers, other transport equipment) 29,30  
C - Furniture 31  
C - Other Manufacturing 32  
C - Repair and installation 33  
F - Construction (buildings, civil engineering, specialised construction activities) 41,42,43

Other (A, B, D, E, O, T, U):

A - Agriculture, forestry and fishing (crop and animal production, hunting and related service activities, forestry and logging, fishing and agriculture) 01,02,03  
B - Mining and Quarrying (mining of coal and lignite, extraction of crude petroleum and natural gas, mining of metal ores, other mining and quarrying, mining support service activities) 05,06,07,08,09  
D - Electricity, gas, steam and air conditioning supply 35  
E - Water supply, sewerage, waste management and remediation activities 36,37,38,39  
O - Public administration and defence: compulsory social security 84  
T - Activities of households as employers: undifferentiated goods and services- producing activities of households for own use 97,98  
U - Activities of extraterritorial organisations and bodies 99

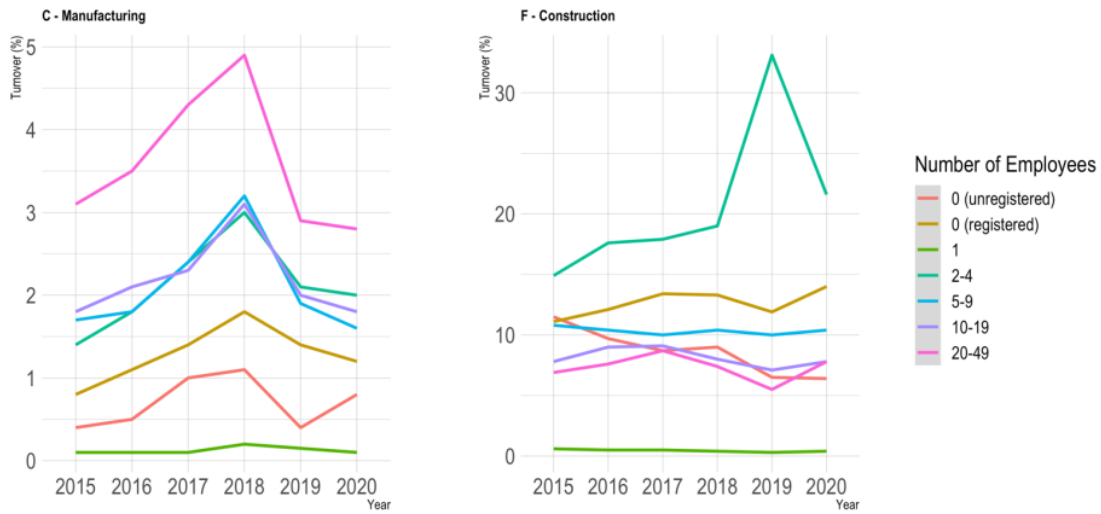
## Appendix B – Manufacturing SIC Group Business Graphs and Maps

### Number of Small Businesses (Manufacturing Industries)



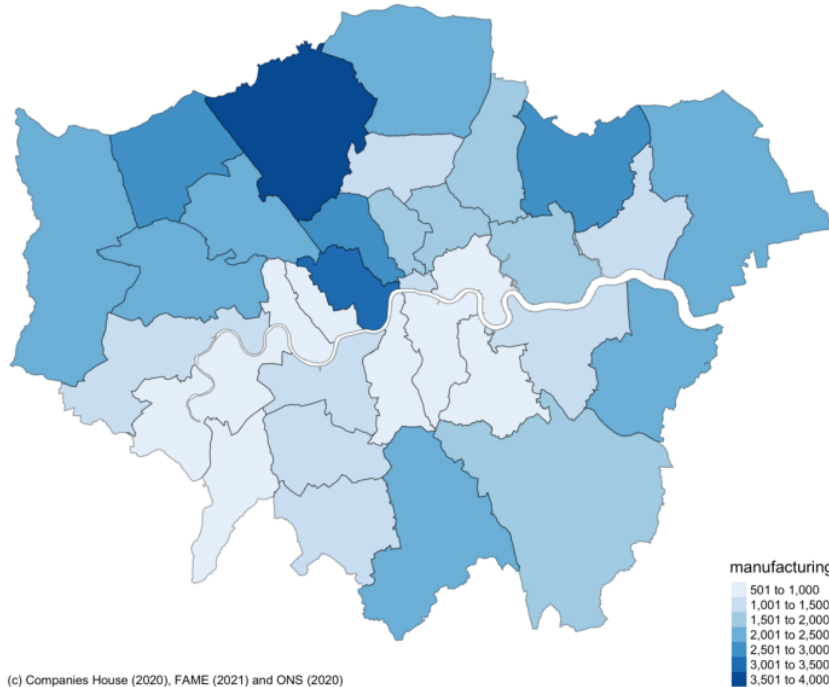
Data source: BPE 2020

### Turnover of Small Businesses (Manufacturing Industries) as a Percentage of the Total Turnover from All Manufacturing Businesses

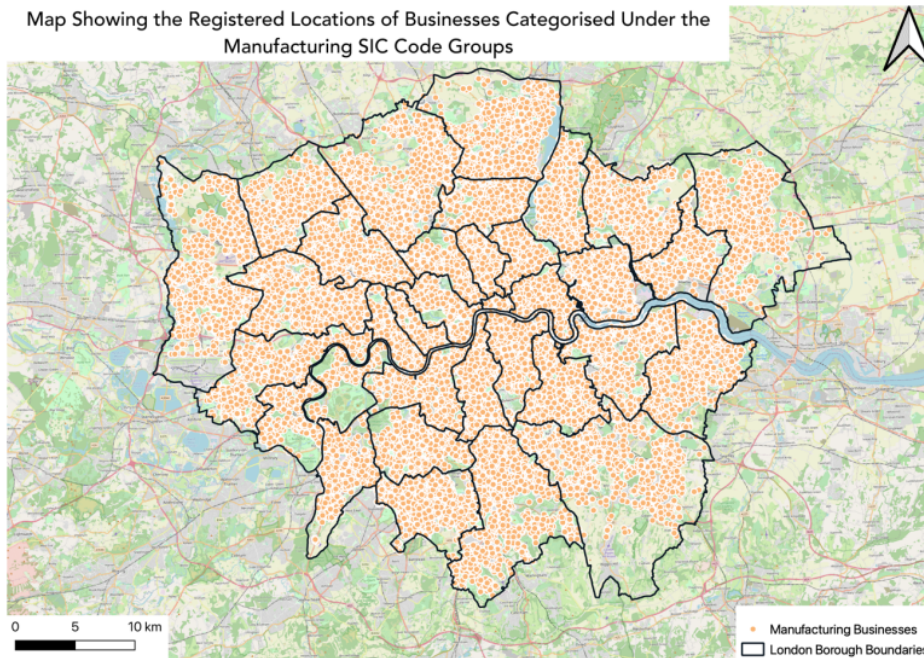


Data source: BPE 2020

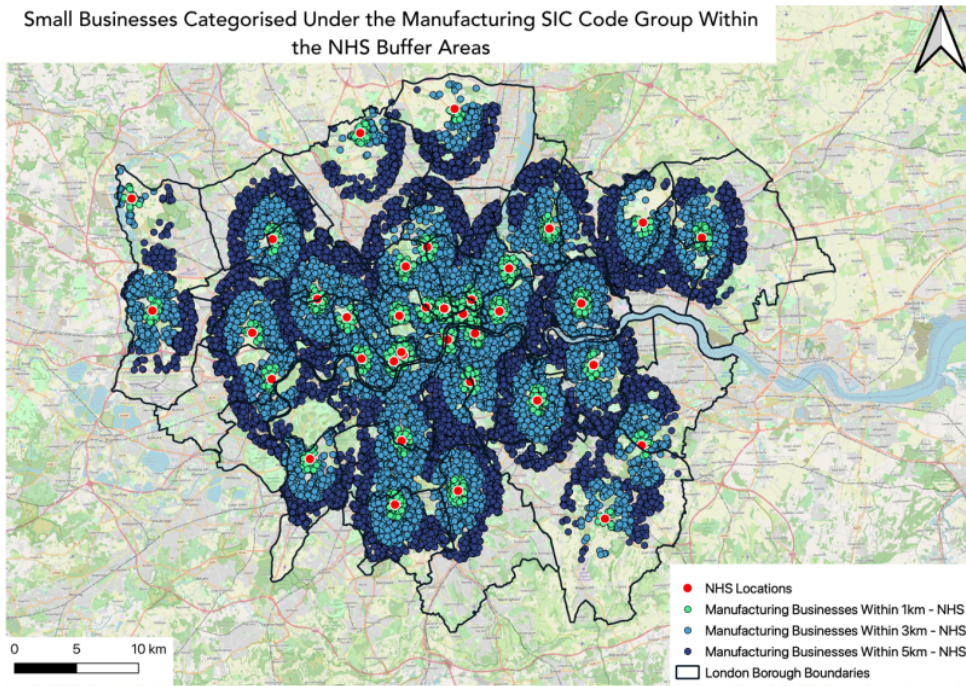
Number of companies classified under the manufacturing industry



Map Showing the Registered Locations of Businesses Categorised Under the Manufacturing SIC Code Groups



Small Businesses Categorised Under the Manufacturing SIC Code Group Within the NHS Buffer Areas



Example of Searching for Businesses Categorised Under the Manufacturing SIC Code Groups Surrounding NHS Anchor Institutions by Borough

