

# COVID-19 SME Economic Impact Analysis

Data Package

August 2020

Created by:

In collaboration with:







# GREATER LONDON AUTHORITY

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Geographic Deep Dive Example: Newham

#### Introduction



The Coronavirus pandemic has hit global, national, and local economies with unprecedented force. As with the majority of crises, the most vulnerable parts of the economy will likely take the hardest hits. By focusing on London's small businesses, this analysis aims to support those in most need, and align to the Mayor's strategy of supporting the Small and Medium Enterprises (SMEs), which account for over 99% of all companies in the Greater London area.

Currently, most recovery research and models take a top-down, macroeconomic approach, leveraging a combination of national-level data, with insights from past economically cataclysmic events. While valuable, there are a few limitations to this approach:

- The top down approaches often miss factors specific to a city level economy
- Over-reliance on insight from past events underestimates the complexity of the current situation
- The model outputs are not sensitive enough to be actionable and applicable at the city level

In this project our team partnered with the GLA Economics, and the GLA's Enterprise and Policy teams to drive a bottom-up approach, which focuses specifically on the most vulnerable combination of sectors and locations in the Greater London area, and accounts for the relationship between the components that make up economic indicators at the business category or business geographic levels.

To this end, we leveraged a combination of publicly available data and combined it with private sector near real-time data (in as close to real time as possible), to get a deeper, more granular, and more realistic understanding of the economic recovery landscape in which SMEs are currently fighting for survival. This perspective does not aim to replace the macroeconomic approach, but rather complement it to provide a more complete, holistic understanding of the economic status at a profoundly granular level.

This exercise was conducted in between March 2020 and June 2020, and leverages the most updated data that was available at the time. It is important to note that new data and evidence constantly emerges, and that the goal is to be able to integrate new data, update the material, and continually update actionable insights in future iterations of this work.

While this approach is tried and tested in other environments and disciplines, the methodology here, described in detail in the data package supplementing this report, is, to our knowledge, the first scalable attempt to apply this approach to the economic assessment for a city. It is also important to note that this project aims to bring to light the most accurate, updated, and relevant insight, but does not go into how this insight should be used to design or impact policy and intervention decisions.

We recognize that like any other data driven economic modelling, it has its assumptions and limitations. Nevertheless, we are confident in the directional validity of our insights, learnings and analysis as key tools that could enable the Greater London Authority to make more informed, evidence-based decisions on policy interventions as they work towards London's economic recovery.

#### Initial macro-economic scenarios



- In May 2020 GLA Economics published a set of projections for London's economy post-COVID-19 reflecting assumptions for the UK economy set out in earlier Office for Budget Responsibility (OBR) and Bank of England scenarios.
- According to the GLA forecasts reflective of the OBR and Bank of England inputs, London's real Gross Value Added (GVA) growth is expected to decrease by -17% in 2020, and then rebound at a rate of +17% in 2021.
- "Standard" rates of growth are not expected to stabilise until 2022 (+4.5%).
- This economic output path is expected to be accompanied with a -7% annual drop in workforce jobs for 2020, and a slow recovery throughout 2021 (+1.4%) and 2021 (+4.9%).
- Charts and graphs here are sourced from GLA Economics.

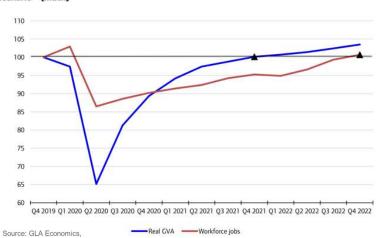
#### **GLA employment Projections:**

- 2020: -420,000 jobs
- 2021: +70,000 jobs
- Not returning to pre-COVID-19 levels until 2023

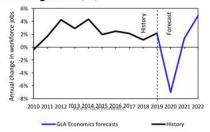
#### **GLA GDP Projections:**

- 2020: -£76.7bn2021: +£65.3bn
- 2022: +£11.0bn and return to pre-COVID-19 levels

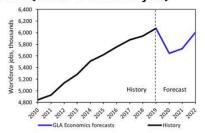
#### Figure 1.3: Expected shape of the economic recovery under the GLA Economics reference scenario 15 (index)







#### Level (million of workforce jobs)



Source: GLA Economics,

	Growth (	annual %)			Level	(millions o	f workford	e jobs)	
	2019	2020	2021	2022		2019	2020	2021	2022
GLA scenario- based forecast	2.2	-7.0	1.4	4.9	GLA scenario- based forecast	6.07	5.65	5.72	6.00

# Updated macro-economic scenarios (July 2020)



In July 2020, GLA Economics updated its forecasts which now created 3 scenarios:

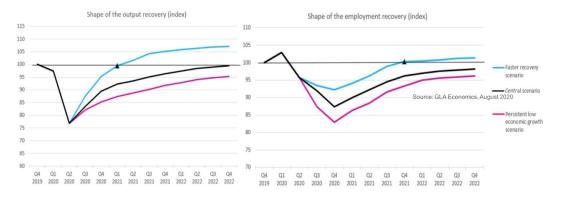
- Fast economic recovery (recover to pre-COVID-19 trends by 2023)
- Gradual return (recovery after 5+ years)
- · Slow economic recovery (diminished growth all the way out to 2030)

Since this analysis was conducted before this data was released, these new scenarios are not reflected in the analysis conducted here but can be included in future iterations.

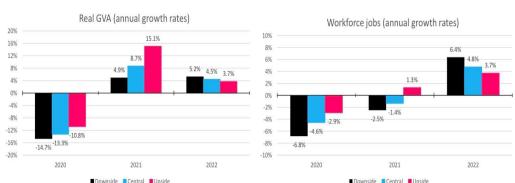
London's real **GVA** growth rate could be -10.8% (£50bn) to -14.7% (£67bn) this year. This growth rate is then expected to rebound to 4.9% to 15.1% in 2021, before returning to more normal figures in 2022 (3.7% to 5.2%)

**Workforce jobs** would decline between **2.9% (170k)** and **6.8% (410k)** this year. These (or other) jobs would return in 2022 under the fast recovery scenario, but unemployment would continue to rise in 2021 under the other scenarios.

#### Medium-term scenarios projections (1)



#### Medium-term scenarios projections (2)

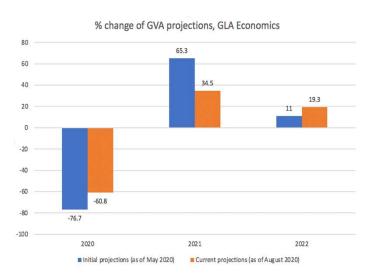


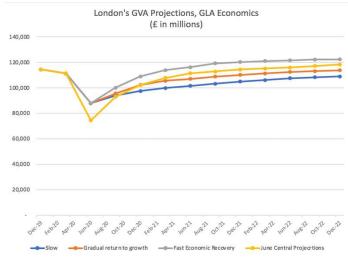
Source: GLA Economics

# Initial vs. current macroeconomic projections



The following graphs present the initial projections released by GLA Economics in May compared to the most recent projections released in August 2020. Current data indicates that the economic impact for 2020 will not be as severe as initially expected (-£60.8BN in projected GVA loss in 2020 vs the initial expectation of -£76.7BN in GVA loss). However, projections also now indicate a significantly slower recovery (+£34.5BN gain in 2021 vs. the +£65.3BN initially expected).







# A localised, cross sectoral, recent data approach



The "top-down" macroeconomic approach applied in most economic impact studies is meaningful but cannot account fully for the challenges people and businesses experience on the ground.

A "bottom-up" representation of granular, up-to-date, and localised data must be considered in order to fully understand and then develop policies, initiatives, and engagements that drive meaningful and measurable economic impact.

SMEs and employees currently impacted or at future risk can be better identified and aided by examining this granular information. Combining public and private data from a range of financial, economic, behavioral, sociographic, and demographic sources helps complement a top-down model by enabling scenarios to be tested against meaningful local data categorised by various London geographies and industry sectors.

In order to manage this 'Big Data' approach it was necessary to develop a flexible technical data model that enables rapid exploration and interrogation of the data in order to uncover the most penetrating insights.

The approach can also enable a deeper and extremely localized exploration, presented in detail throughout the report.

#### **Key advantages**

- Combines market research, data science, and tech platforms
- Leverages multiple private and public data sources
- Representation of close to real time projections
- Clearer, deeper picture of reality
- Enable decision making with local precision
- Probabilistic vs. deterministic approach to predictions
- Creates a scalable platform



#### **Key Limitations:**

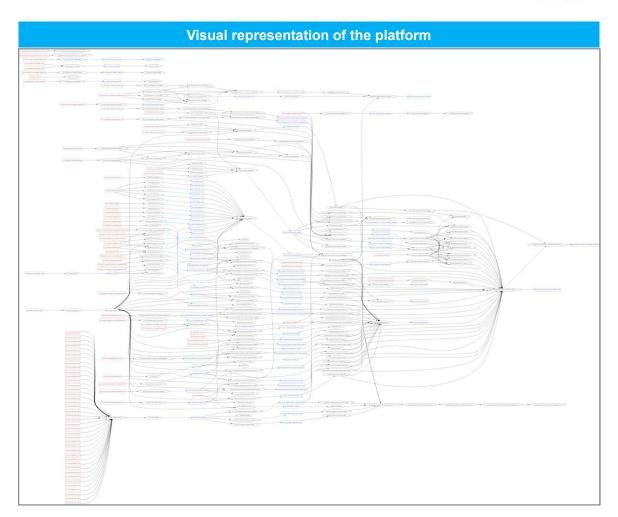
- Predicting the future inherently requires some assumptions
- The validity of outputs is dependent on the scope of inputs
- Ongoing value requires ongoing incorporation of updated data

# Data platform



- 10 unique public and private data sources
- +400 million database rows
- 122 GB database storage processed from over 1 TB of raw input
- 2 million external API requests
- 3.8 million mobile phone journeys across 1.7 million subscribers
- +70 presentation indicators
- 50 breakdown dimensions per indicator
- 26 unique geographical dimensions
- 273 DAG\* processing stages across 21 schemas with 695 interactions

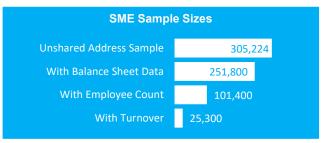
<sup>\*</sup> Refers to a branch of advanced mathematical and data processing termed graph which is particularly well suited to modelling complex relationships that traditional storage constructs such as Relational are ill suited to handle.



# Methodology: a transparent step by step breakdown



- Agreed on a list of key questions that mattered most to the GLA in understanding the economic impact of COVID-19 on SMEs.
- A large sample of individual company details, accounts, financial indicators for SMEs in London were created and confirmed by the GLA.
- In this data set we included the most updated available information as of June 2020. Data made available after June 2020 can be included in future iterations.
- The available financial, economic, and geographic profile of each company formed the building blocks for the core dataset.
- Up to date data, as well as forecasts from both private and public sector companies and organisations were aggregated into a single dynamic data ecosystem.
- All data sets were stripped of any Potentially Identifiable Information before reaching the data environment.
- To this data set, additional pertinent components such as census data, the Index of Multiple Deprivation, and additional indicators were incorporated.
- Standard sectoral and geographic definitions alongside GLA- provided classifications, geographies, and interest area groups were created.
- Mobility data, focused on tracking origin and destination journeys, movement, distance, and patterns was incorporated via CK Delta.
- Open source OpenStreetMap data was integrated to cross examine and verify business profiles and locations in specific areas.
- All data was normalized and loaded into a single environment that connected previously disparate data sets and sources.
- Initial company data was imported from Companies House Register, along with raw accounts, dating back to three years.
- Company data was merged with imported private sector company registration data.
- The database was then enriched with electronic accounts including credit risk scores, keywords, Coronavirus Business Interruption Loan Scheme (CBILS) eligibility, turnover, debt, and other details via DueDil.
- A sample of London SMEs was built by restricting to companies that:
  - Reported total assets of under £12.5M.
  - Had no more than 250 employees.
  - Reported turnover of under £25M annually.
  - Companies that reported total assets under £12.5M but had no reported values for employees or turnover.
- · A reduced sample was built to remove those with a registered address of an accountancy or registration service.



A note on inherent bias There is an inherent bias present since different industries and size bands report different levels of detail in accounts. This can be partly controlled by a careful choice of indicator. Additionally, we apply adjustment to some indicators to account for varying reporting rates to attempt to compensate for this bias. However it must also always be kept in mind when interpreting results.

#### The team



All partners contributed of their time, data, and expertise on a pro-bono basis, for the betterment of London, it's citizens, and the ability of the GLA to lead an effective effort in economic recovery.

Their contributions are critical to the success of this effort and within the scope of our work on this project.





# Part 1: Key Findings

#### Introduction

#### Breakdowns:

- Geography
- Sector
- Companies at risk
- Employment
- Street level breakdown capacities

#### Introduction

A list of indicators were developed in collaboration with GLA Economics that best represents the current and future "economic health" of London's SMEs.

For the purposes of this analysis, "economic health" in this instance refers to the cumulative underlying factors that have allowed different SMEs, employee groups and sectors to better weather the impacts of the COVID-19 lockdown.

- Indicators were chosen to reflect "economic health" in an area by considering pre-COVID-19 measurement for total turnover, profit, credit risk band and liquidity/solvency scores.
- In addition, scenario-based indicators were chosen to reflect possible COVID-19 impact such as companies exposed to higher financial risk folding and the knock-on effect in terms of lost employment.
- The tables included show the range of indicators and rank each industry and borough according to the relevant indicator and provide a cumulative "economic health score" based on the weighted sum of combined indicators.
- This cumulative "economic health score" was calculated both with an additional weighting by deprivation ranking and without.
- These high-level rankings provide a holistic understanding of the general health of SMEs, based on location and industry, and could be used to highlight potential geographies and sectors of interest for further in-depth analysis and investigation.
- This tabular overview has limitations and should be cross examined against more granular investigations where appropriate including policy areas and other quantitative and qualitative investigations of the different sectors and geographies.

# Key findings: Geography breakdown

#### **Highlights:**

- Central boroughs appear to be more severely affected by virtue of the high concentration and density of businesses and employees.
- Barking and Dagenham, Hackney, and Brent have a low overall economic health scores, independent of compounding deprivation rankings for these areas. Many businesses have poor liquidity and solvency scores in these areas.
- The data can help explain how and why there are important differences in the reasons for the low scores. Poor pre-COVID-19 economic health in some cases, versus potential large employment losses and turnover drops under COVID-19 impact scenarios in other cases. However the cumulative effect of many smaller losses in turnover and employment should be examined for both citywide and local economy impact.



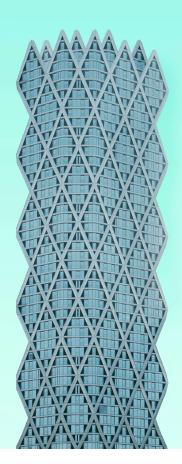
# Snapshot of borough rankings by economic indicators and IMD ranking

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nk ⇒ Loca re	al Authority District	<ul> <li>Average IMD ranking.</li> </ul>	Number of SMEs in Set 2 sample.	Percentage London SMEs at risk in Set 2 sample (Model B OBR).	Estimated total turnover over 12 months of London SMEs in Set 2 sample.	Estimated total post tax profit of companies in London SME in Set 2 sample (outliers removed).	Estimated turnover at risk by London SME in Set 2 sample (Model B OBR).	Percentage turnover at risk by London SME in Set 2 sample (Model B OBR).	Estimated BICS = (COVID Survey) forecast for Q2 turnover drop of London SMEs in Set 2 sample.	BICS (COVID Survey) forecast for percentage Q2 turnover drop of London SMEs in Set 2 sample with data over aggregate breakdown.	Geometric mean of liquidity ratio (current ratio) per company for London SME Set 2 sample.	Geometric mean of debt to assets solvency ratio per company for London SME Set 2 sample.	Average credit risk banding (very low, low, moderate, high) of London SMEs in Set 2 sample by registered address.	Percentage London SMEs in Set 2 sample ineligible for Coronavirus Business Interruption Loan.	Estimated total employees of companies in London SME Set 2 sample.	<ul> <li>Percentage employees at risk by London SME in Set 2 sample (Model B OBR).</li> </ul>	BICS (COVID Survey) estimated furloughed staff for SMEs in Set 2 sample.	<ul> <li>BICS (COVID Survey)</li> <li>estimated</li> <li>percentage</li> <li>furloughed</li> <li>staff for SMEs</li> <li>in Set 2</li> <li>sample.</li> </ul>
Bark	king and Dagenham	1	6286	9	30	5	31	31	29	9	1	2	5	32	25	31	29	29
Ham	nmersmith and Fulham	13	6829	2	12	8	6	1	11	25	15	9	17	14	15	4	20	30
Haci	kney	3	9667	18	10	19	5	2	12	33	2	8	22	3	8	2	8	26
Brec	nt	5	10576	12	9	18	18	25	8	3	6	5	3	16	10	16	7	9
Kens	sington and Chelsea	24	6601	1	13	12	11	7	14	15	16	3	7	11	21	6	17	1
New	vham	2	9056	4	27	22	23	19	25	10	8	1	9	17	17	20	13	6
Wes	stminster	22	16982	3	1	33	1	15	1	21	4	4	2	8	1	3	1	2
Tow	ver Hamlets	6	9640	5	6	16	8	10	9	30	24	16	19	5	6	5	6	23
Lewi	risham	4	7043	11	33	2	33	26	33	1	22	15	30	12	33	28	33	18
Gree	enwich	12	7340	15	32	1	32	32	31	6	12	6	27	23	29	25	27	14
Wah	tham Forest	8	7686	21	29	4	25	16	30	22	19	13	11	24	28	13	25	11
Enfis	eld	15	8517	26	19	21	12	3	19	2	7	14	8	13	19	29	18	5
Bexl	ley	27	6096	22	25	3	20	17	27	13	3	11	15	28	26	32	28	19
Ealir	ng	14	12003	13	8	24	9	8	5	5	10	12	1	26	7	21	3	4
) Lam	nbeth	11	8668	10	15	6	13	14	18	24	23	21	28	4	12	18	12	12
L Cam	nden	18	10520	6	2	32	2	6	2	28	21	20	18	2	2	11	2	27
Croy	ydon	17	10423	16	17	20	15	20	13	4	17	10	20	15	11	22	11	16
Hou Hou	mslow	16	9207	20	7	27	10	11	6	20	9	7	12	30	13	7	10	15
! Islin	ngton	9	8046	14	5	26	4	4	4	29	26	26	26	6	4	8	5	31
Sout	thwark	7	9640	8	4	29	7	13	3	31	25	23	29	9	3	14	4	32
City	of London	28	5045	7	3	30	3	5	7	26	32	32	16	1	5	1	15	33
Redi	bridge	20	10765	27	28	13	30	33	28	12	14	18	10	19	16	26	19	22
l Hari	ingey	10	7695	30	26	11	29	28	26	17	13	22	23	10	30	27	26	7
Barr	net	26	14136	24	14	17	19	23	15	11	11	28	13	7	9	23	9	20
Hilli	ingdon	19	9110	28	11	31	14	21	10	14	5	17	4	31	14	10	14	17
1,11	ering	21	6028	31	24	14	16	12	21	18	20	24	6	29	27	33	24	10
Mer	rton	31	7073	19	22	10	24	22	23	16	27	19	21	25	23	15	21	3
	ndsworth	23	9898	23	18	7	17	18	17	19	28	27	31	18	18	17	16	8
Harr	row	25	10512	29	23	28	28	29	24	32	18	25	14	20	20	2.4	22	24
Sutt	ton	29	5587	33	31	9	21	9	32	2.7	31	30	24	33	32	12	32	25
King	gston upon Thames	32	5496	17	20	23	26	30	20	7	29	29	25	27	31	30	31	13
Bron	mley	30	9356	32	21	15	27	27	22	8	30	31	32	21	22	19	23	21
Rich	mond upon Thames	33	7755	25	16	25	22	24	16	23	33	33	33	22	24	9	30	28

# Key findings: Sector breakdown

#### **Highlights:**

- Looking at the sector impacts, the overview does not diverge significantly from top-down industry level forecasts. Such forecasts were used in the calculation of risk scores, so to a degree it is to be expected.
- However, the unique indicators used here consider characteristics of the London SME landscape specifically. Scores were calculated for the GLA-specific sectoral breakdowns rather than the more commonly used SIC categories.
- Of note is that arts, entertainment and recreation, construction, and administrative and support services are assigned healthier scores in our analysis, despite high predicted GVA drops from other forecasts.
- These same sectors score poorly in terms of turnover at risk or turnover drop, while other indicators suggest businesses in these sectors appear to have potentially better resilience or pre-COVID-19 economic health.



# Snapshot of sector rankings by key indicators

					OE/1 OC	store run	king base	od on Re	y illalout	.010						
⊕ GLA Sector	Number of SMEs in Set 2 sample.	Percentage London SMEs at risk in Set 2 sample (Model B OBR).	Estimated total turnover over 12 months of London SMEs in Set 2 sample.	Estimated total post tax profit of companies in London SME in Set 2 sample (outliers removed).	Estimated turnover at risk by London SME in Set 2 sample (Model B OBR).	<ul> <li>Percentage turnover at risk by London SME in Set 2 sample (Model B OBR).</li> </ul>	Estimated BICS (COVID Survey) forecast for Q2 turnover drop of London SMEs in Set 2 sample.	BICS (COVID Survey) forecast for percentage Q2 turnover drop of London SMEs in Set 2 sample with data over aggregate breakdown.	Geometric mean of liquidity ratio (current ratio) per company for London SME Set 2 sample.	Geometric mean of debt to assets solvency ratio per company for London SME Set 2 sample.	Average credit risk banding (very low, low, moderate, high) of London SMEs in Set 2 sample by registered address.	Percentage London SMEs in Set 2 sample ineligible for Coronavirus Business Interruption Loan.	employees of companies in London SME Set 2 sample.	Percentage employees at risk by London SME in Set 2 sample (Model B OBR).	furloughed	BICS (COVID Survey) estimated percentage furloughed staff for SM in Set 2 sample.
Accommodation and food	13024	2	9	6	5	5	7	1	1	1	1	9	5	2	1	1
Transport and storage	5369	3	13	10	8	2	9	10	3	6	6	11	14	4	12	5
Scientific R&D and veterinary sen	vices 1093	1	18	2	14	4	17	16	14	12	13	5	18	1	17	17
Retail (exc. motor trades)	19634	7	5	12	4	6	6	7	6	2	2	13	8	7	5	10
Wholesale (inc. motor trades)	12814	10	4	13	7	15	2	6	7	4:	3	12	10	12	9	11
Manufacturing	8893	4	7	8	9	14	8	14	5	3	4	19	11	13	6	6
Primary and Utilities	1808	17	16	4	18 9	18	16	8	4.)	8	8	10	17	16	16	14
Travel services and tourism	2078	8	15	5	13	10	13	3	9	S	11	18	15	11	14	7
Arts, entertainment and recreation	on 10820	6	14	11	10	8	11	5	8	7	14	3	12	8	4	2
Households as employers	292	5	19	1	19	7	19	11	12	11	19	8	19	19	19	9
Real estate, architecture, enginee building services	ering and 34918	16	10	16	11	13	10	12	2	14	10	2	6	14	10	12
Administrative and support service	ces 46109	9	1	18	3	9	1	4	10	10	9	6	1	9	2	8
Public administration & education	n 9379	12	12	7	12	12	14	17	15	16	17	1	7	10	13	19
Freight	3057	15	17	3	17	17	15	9	11	9	7	14	16	15	15	4
Construction	31839	11	6	14	6	11	5	2	13	15	5	17	9	5	3	3
Information and communications	43509	14	2	17	1	1	4	19	16	13	16	15	3	3	7	16
Health and social care	16794	19	11	9	15	16	12	18	17	18	18	4	2	17	11	18
High value business support	46510	13	3	19	2	3	3	15	18	17	15	16	4	6	8	15
Financial and insurance activities	8505	18	8	15	16	19	18	13	19	19	12	7	13	18	18	13

# Key findings: Companies at risk

# Percentage of companies at risk by sector, per borough

#### Approach:

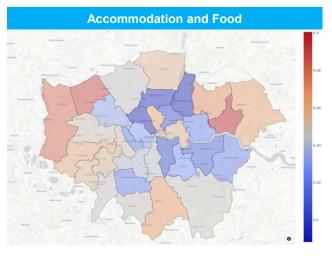
- This table corresponds to the maps in pages 18-20.
- There is a huge variation in where at-risk companies are located, depending on sector.
- For some sectors, high risk is concentrated in small areas, whereas for other industries risk is spread across London.
- Scales for these maps are relative to the sample size for the individual sector, so caution should be exercised when comparing across different sectors.
- Additionally, this is not weighted by the prevalence of an industry in each area and this must be understood when interpreting the maps.
- For a complete definition of how we are defining "risk", please refer to page 34.

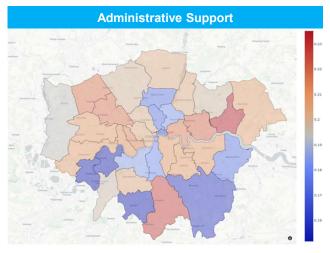
#### Top 3 boroughs with the highest % of companies at risk, per sector

		Highest Risk Borough								
Sector	#1		#2		#3					
Accommodation and Food	Barking	33%	Harrow	30%	Hillingdon	30%				
Administrative Support	Barking	24%	Croydon	23%	Newham	23%				
Arts, Entertainment, and Recreation	Baxley	30%	Redbridge	27%	Havering	26%				
Construction	Camden	28%	City of London	27%	Richmond	25%				
Financial and Insurance	Barking	9%	Greenwich	7%	Kensington	4%				
Freight	Wandsworth	29%	Southwark	29%	Kensington	25%				
Health and Social Care	Hammersmith	4%	Kingston	4%	Islington	3%				
High Level Business Support	Barking	26%	City of London	24%	Newham	23%				
Information and Communications	Kensington	29%	Westminster	26%	Camden	23%				
Manufacturing	Kensington	31%	Hammersmith	30%	Camden	29%				
Public Administration and Education	Kensington	24%	Newham	24%	Lewisham	24%				
Real Estate and Architecture	Greenwich	11%	Lewisham	10%	City of London	10%				
Retail (excluding Motor)	Lambeth	26%	Southwark	25%	Lewisham	25%				
Transport and Storage	City of London	33%	Southwark	32%	Camden	30%				
Travel and Tourism	Kensington	18%	Hammersmith	17%	Newham	17%				
Wholesale (Including Motor)	Lambeth	29%	Bromley	24%	Havering	23%				

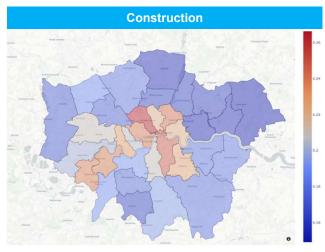
NOTE: Industry + location combination that showed fewer than 50 businesses where relevant were discarded.

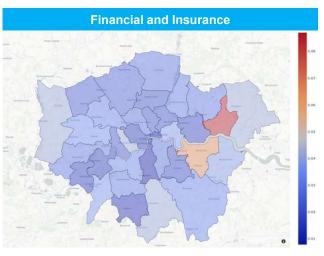
# Percentage of companies at risk by sector, by borough

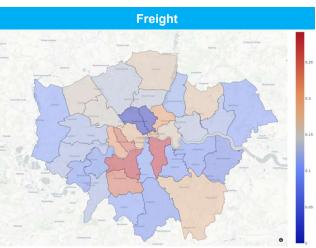




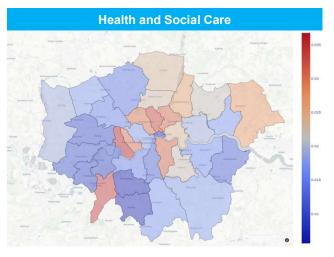


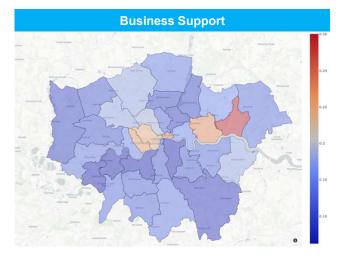


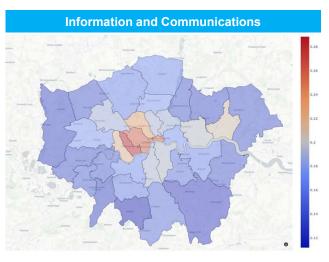


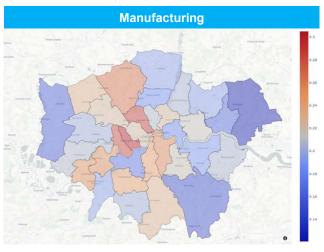


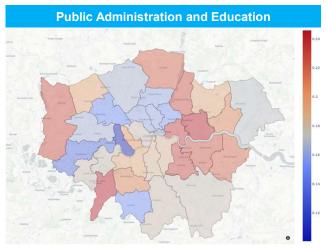
# Percentage of companies at risk by sector, by borough





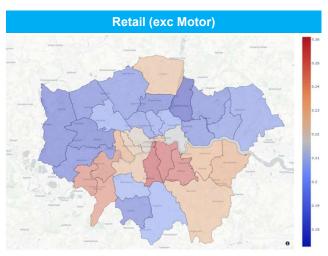


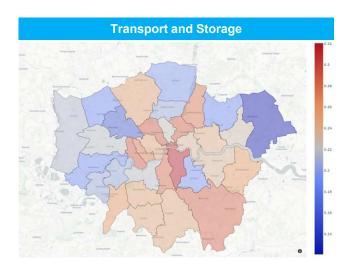




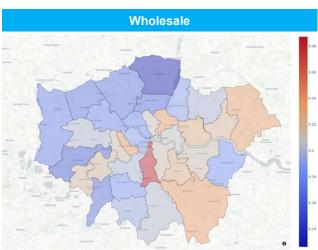


# Percentage of companies at risk by sector, by borough









The maps on these slides show the estimated percentage of companies in a given borough operating in a given industry which are at risk of significant turnover loss under the OBR scenario forecasting applied.

- Our scenario takes the industry sections which the OBR has forecast as being worst affected by COVID-19 and considers a
  situation where the companies with potential risk are those with low current liquidity for their industry section along with
  being highly leveraged compared to the rest of their industry section.
- These indicators are then compared with the company's eligibility for CBILS as well as its credit risk banding and the companies considered at risk under this scenario are those for which these indicators suggest a shortfall of liquidity combined with potentially limited access to loans, according to these indicators.
- This scenario should not be interpreted as a forecast, but rather as a presentation of a particular risk profile of interest to describe calculated scenarios applied based on agreed assumptions.
- This particular risk profile was intended to consider where companies may struggle to service debt, but it is technically straightforward to change and it is thus possible to quickly examine an array of scenarios.

# **Key findings: Employment**

Percentage of employees at risk by sector, per borough

#### Approach:

- This table corresponds to the maps in pages 23-25.
- This scenario presents the highest number of employees at risk per sector, with the boroughs with the highest percentages of employees at risk in that sector represented.
- In this exercise we disregarded any industry and location combination that showed fewer than 50 businesses where relevant, apart from in Travel and Tourism due to the specific business distribution of SMEs in this category.

#### Top 3 boroughs with the highest % of employees at risk, per sector

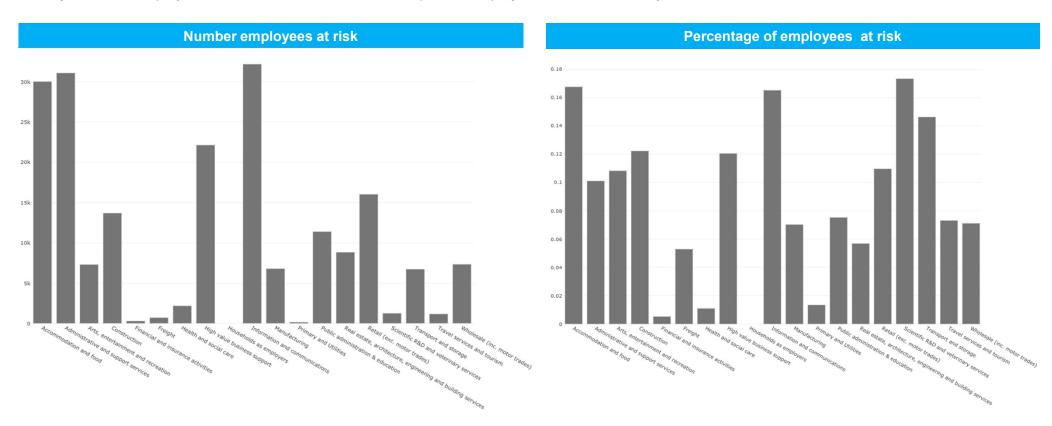
	Highest Risk				( Borough				
Sector	#1			#2			#3		
Accommodation and Food	Barking		52%	Bromley		31%	Richmond		30%
Administrative Support	Harrow		17%	Brent		16%	Merton		16%
Arts, Entertainment, and Recreation	Wandsworth		8%	Camden		7%	Hammersmith		3%
Construction	Tower Hamlets		27%	Westminster		24%	Waltham Forest		22%
Financial and Insurance	Bromley		5%	Kensington		3%	Merton		2%
Freight	Hackney		33%	Hillingdon		23%	Redbridge		23%
Health and Social Care	Sutton		20%	Harrow		2%	Newham		2%
High Level Business Support	Hounslow		23%	Bexley		22%	Hillingdon		18%
Information and Communications	Hammersmith		25%	City of London		24%	Lambeth		21%
Manufacturing	City of London*		26%	Bromley		30%	Richmond		30%
Public Administration and Education	Sutton		27%	Harringey		19%	Hackney		15%
Real Estate and Architecture	Hounslow		30%	Greenwich		13%	Islington		17%
Retail (excluding Motor)	City of London		27%	Westminster		18%	Hillingdon		17%
Transport and Storage **	City of London		58%	Camden		80%	Hammersmith		48%
Travel and Tourism **	Sutton		50%	Islington		37%	Waltham Forest		25%
Wholesale (Including Motor)	Kensington		22%	Camden		14%	Hackney		13%

<sup>\*</sup> City of London showed much higher count of manufacturing SMEs compared to other areas so is listed first

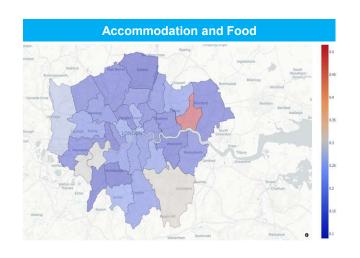
<sup>\*\*</sup> Number of SMEs was very low (under 20) so numbers may be unreliable but presented for context

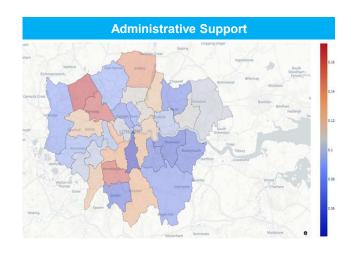
# Employees at risk by sector

- Under this scenario, most employees are at risk in information and communications, administrative and support services, and accommodation and food.
- The number of employees at risk scored by percentage of total employees in the sector shows a different kind of impact. Sectors with fewer employees may have a higher proportional impact for that sector such as Scientific, R&D and Veterinary Services. There may be fewer employees in the sector, but the overall impact to employees in the sector may be more severe.

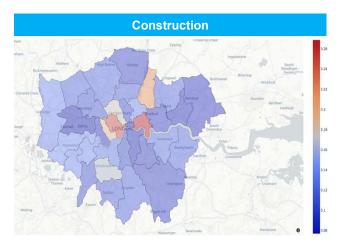


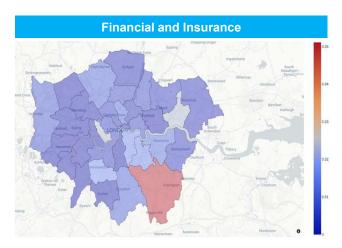
# Percentage of employees at risk by sector, by borough

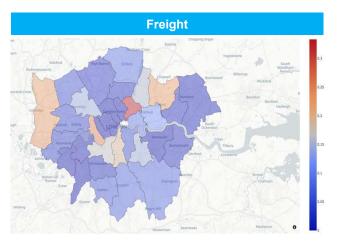






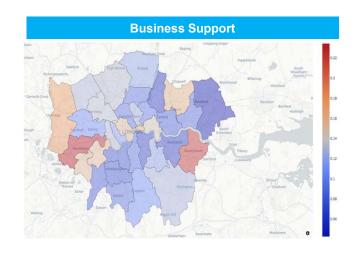


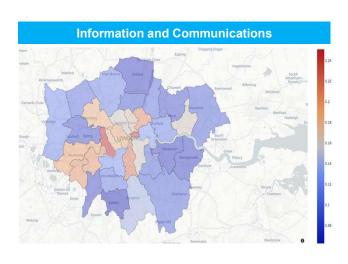




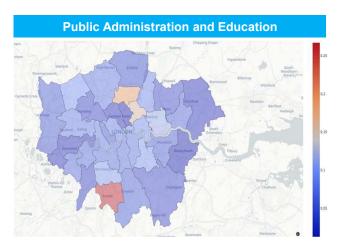
# Percentage of employees at risk by sector, by borough





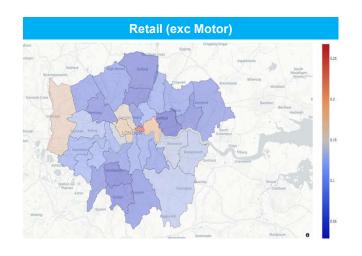


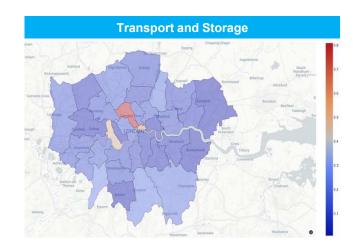


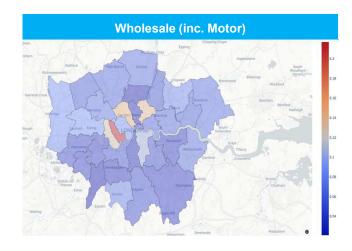


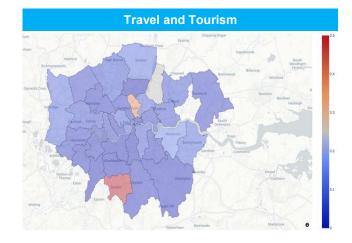


# Percentage of employees at risk by sector, by borough









# Key findings: Street level breakdown capacities

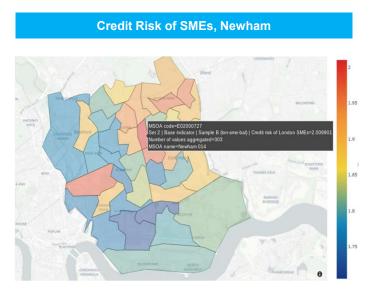
The data enables a street-level analysis capability. In particular, the indicators in this report are calculated from multiple 'bottom-up' data points for each company individually and aggregated to the high-level views presented here.

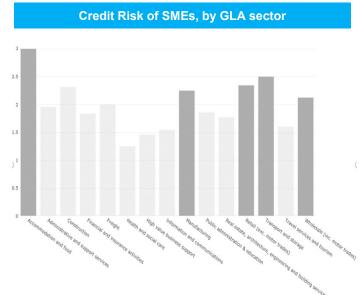
- The high-level view is limited in its ability to capture the full scope and variation of the London SME landscape. However, the fine-grained nature of the data allows one to 'drill down' to focus on a choice of specific geographies and industries.
- In order to illustrate more concretely the sort of financial calculations being undertaken for each company across the sample we show an example of two business in Newham, identified by looking for hotspot areas in the borough with poor credit rating.
- Going forward, this deep dive approach is likely to be the most insightful
  way to explore and interrogate the data with specific questions to obtain a
  more complete and detailed view of the complex and rich nature of London
  businesses.



# Street level drill down capability - Newham

- Breaking down Newham by MSOA we can identify an area with poor average credit rating. This area's credit rating can be further
  analysed by industry showing accommodation and food and retail are amongst the higher credit risk sectors in this MSOA.
- It is then possible to break down the number of companies in this area by Lower Layer Super-Output Area (LSOA), restricting to just those companies in the top five highest credit risk sectors in the MSOA.
- The data platform allows for this sort of rapid drilldown to be done through a user interface with interactive maps and charts, with database queries generated automatically across the full range of presentation indicators and dimensions.







Street level drill down capability to understand mix of business vulnerabilities

- It is possible to identify the businesses on a main road by drilling further to the postcode level. For retail store on line 2, from accounts data it is possible to see reported current assets, cash-on-hand and current liabilities, amongst other details.
- To compute current liquidity ratio as well as its 'quick liquidity ratio' (by deducting stock from current assets, since stock is not quick to liquidate). It has a medium credit risk.
- An imagined scenario for this business is that the ability to sell its stock due to lockdown
  and without access to some form of financial assistance one might expect this or a
  comparable business to struggle to meet its liabilities beyond a few months.
- The Restaurant on line 4 has very large liabilities due and high credit risk. Consequently it appears to be in serious financial difficulty, irrespective of COVID-19 impact.

Liquidity: 1.4
Quick liquidity ratio: 0.2
Current assets: £145,000
Of which cash: £20,000
Current liabilities: £105,000\*

\*rounded numbers for illustrative purposes.

Liquidity: 0.03

Small Business X with name and address

	Company name #	Company postcode	Full address ‡	Top keyword ≑	GLA sector name	*Set 2   Base indicator   Sample B (lon-sme-ba
	<b>10</b>	SAMPLE CONTRACTOR CONTRACTOR		grocer	Retail (exc. motor trades)	2
	SD SD		- [	retail	Retail (exc. motor trades)	2
	30		-[	advertising	High value business support	2
	TD		<b></b> []	restaurants	Accommodation and food	(4
	ED		<u>~</u> []	stores	Retail (exc. motor trades)	3
6.	ED 1			*	Administrative and support services	2
	ED .		.н	clothing	Retail (exc. motor trades)	3
2	Œ		- [	stores	Retail (exc. motor trades)	3
	ъ		-	repain	Manufacturing	1



# Part 2: Sectors

**Current Overview** 

Three key impact analyses:

- Revenue
- Risk
- Employment

#### **Current overview: SMEs in London**

London's SME ecosystem is diverse, complex, and a critical part of the economic, political, and social fabric of the city.

SMEs account for over 99% of all businesses in London, totaling around 1,010,000 businesses. They generate about 48% of all business turnover, equating to over £500M annually. In addition, SMEs sustain around 52% of all employment in the Greater London area, exclusive of the "gig-economy".

Furthermore, SMEs are growing at a much faster pace than large companies. In the last six years their numbers have grown by 29%, faster than the national average, buoyed by micro-businesses with fewer than 49 employees.

The impact of COVID-19 has been severe and wide across all social and economic areas. However, SMEs, who generally have lower amounts of savings, narrower margins, high debt to asset ratios and are dependent on regular cash flow are in a particularly difficult position.

The following section summarizes findings in trying to best understand the current, and potential future uncertainties these SMEs are and will face along three areas of examination- revenue, risk, and employment. In addition to financial and company data, we integrated studies and surveys from the Office of Budget Responsibility (OBR) and the Office of National Statistics (ONS) BICS COVID-19 Impact Study.

48% of all businesses in turnover in London

52% of all employment in London

29% 6-year growth rate 99% of all businesses in London

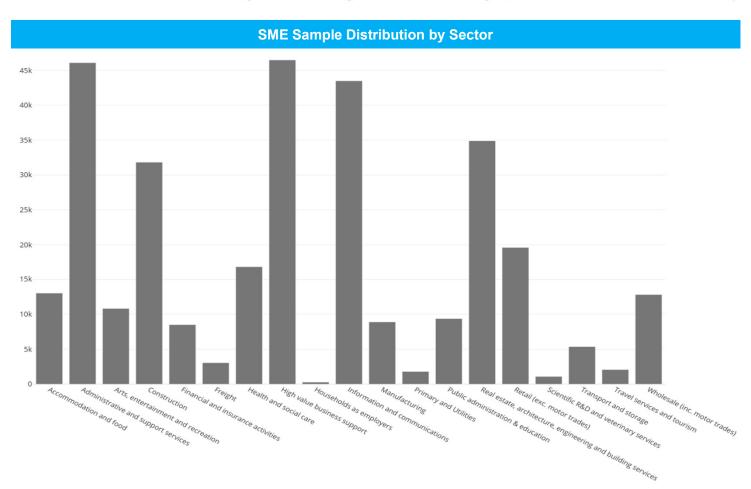
#### **Defining SMEs:**

- Under 250 employees,
- Under £25M in annual turnover
- Under £12.5M in reported assets

Source: https://www.gov.uk/government/statistics/business-population-estimates-2019

# What is the breakdown of London's SMEs by sector?

- The charts indicate the number of SMEs in the sample group, segmented by GLA sector classifications.
- In terms of business numbers and proportions, it is possible see that business sectors and groups such as Administrative and Business Support, Information and Communications, and Digital Technologies account for large portions of London's SME ecosystem.



# Which categories are estimated lose the most total tumover?

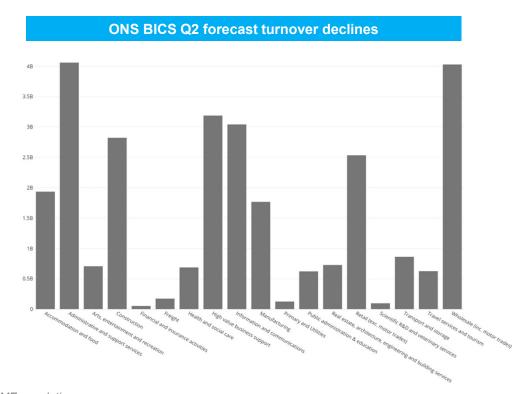
#### **OBR** View of expected total turnover declines

- Admin Support: (-£6.5BN)
- Info and Comms (-£6.2BN)
- Wholesale (-£5.6BN)

# OBR Q2 forecast turnover declines

#### **ONS BICS View of expected total turnover declines**

- Admin Support: (-£4.1BN)
- Wholesale (-£4.1BN)
- Business Support (-£3.2BN)



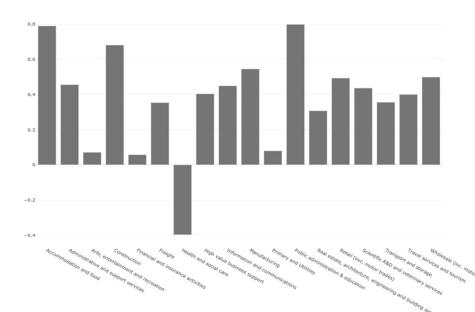
NOTE: Absolute numbers are, as always, based on the sample size available, rather than the total SME population.

# How are the two currently used projections different in tumover % declines?

#### Sharpest turnover percentage drops by OBR:

- Public Administration and Education (-80%)
- Accommodation and Food (-79%)
- Construction (-69%)
- Health and social care (+40%)

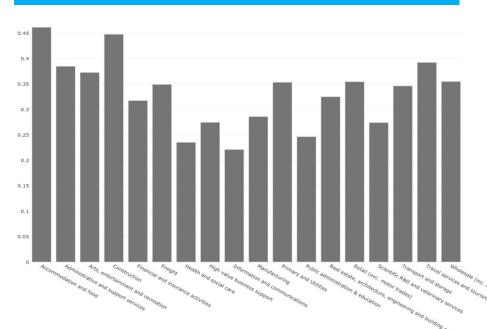
#### **OBR Q2 forecast turnover percentage decline**



#### Sharpest turnover percentage drops by ONS BICS:

- Accommodation and Food (-46%)
- Construction (-44.5%)
- Travel and Tourism (-39%)

#### **ONS BICS Q2 forecast turnover percentage decline**



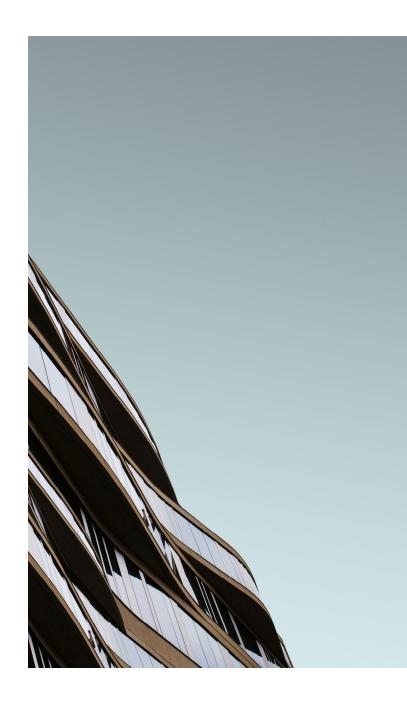
Note: OBR reference scenario forecast not available for SIC sections R (arts, entertainment and recreation), E (water supply; sewerage and waste management) and D (electricity, gas, steam and airconditioning supply). The GLA-defined sectors for arts, entertainment and recreation, and primary and utilities have consequently been omitted from the corresponding graph here.

# Key impact analysis: Financial risk

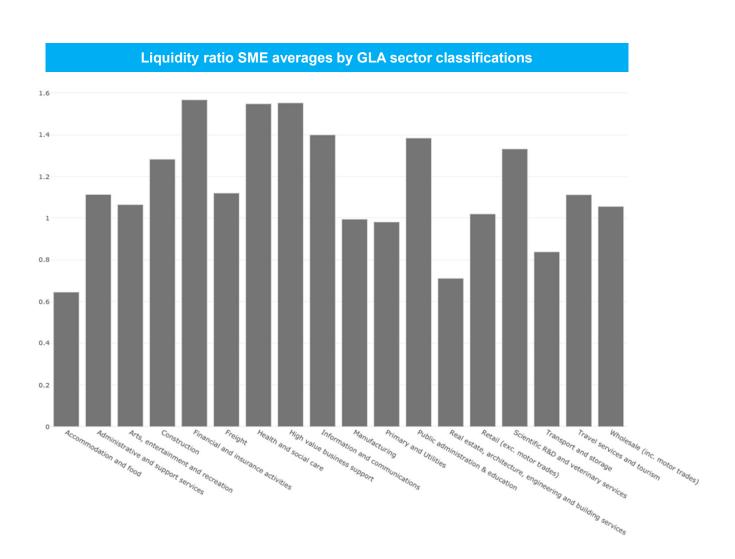
#### Sector classification risk indicators

Using individual companies' reported accounting metrics, a range of indicators have been computed that can be used to assess exposure and risk:

- Current liquidity score: the ratio of a company's current assets to its current liabilities. This captures the ability of a company to readily meet its short-term liabilities. A low liquidity score can indicate a company lacks enough accessible cash to maintain its current liabilities.
- Debt-to-assets ratio: the ratio a company's total debt to its total assets that captures how leveraged a company is. A high score can indicate a company with more debt than it can readily service and may affect its eligibility for financing.
- Credit risk: a proprietary indicator and groups companies by credit score into low, medium, high and very high bands. Low is scored as 1 and very high as 4.
- CBILS eligibility: company specific profiles to determine whether an SME is eligible for the government-backed Coronavirus Business Interruption Loan Scheme (CBILS)



# Which sectors have the lowest liquidity ratios?



#### **Lowest Liquidity Ratios by sectors**

0.61

Accommodation and Food

0.69

Real Estate

0.83

Transport and Storage

Notes regarding liquidity:

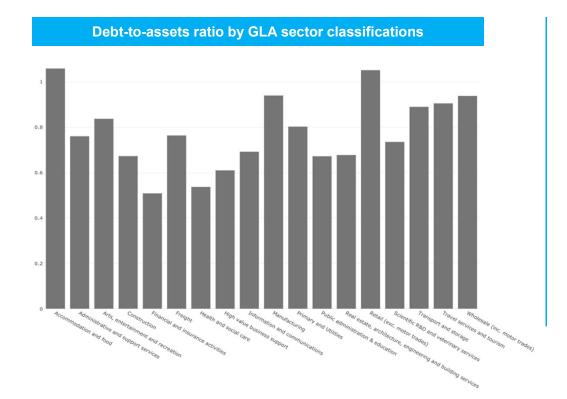
Care must be taken when drawing conclusions from this about the relative health of different sectors. Different industries naturally operate at different liquidity levels.

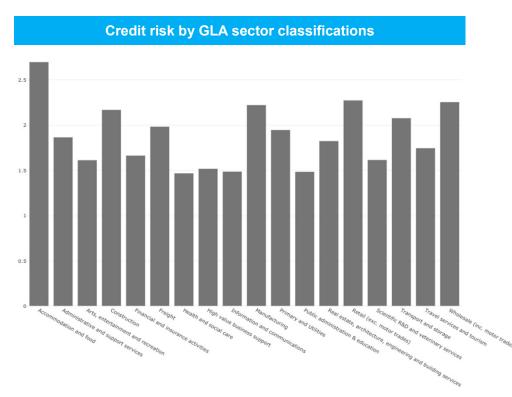
Average liquidity ratio has been computed using the geometric mean

# Which sectors have the highest credit risk and debt-to-asset ratios?

High debt-to-assets and/or high credit risk could indicate difficulty in obtaining financing and may indicate the degree to which a sector may be able to withstand a downturn and then recover. There is a visible correlation between these two indicators.

Accommodation and Food, and Retail SMEs showing highest risk rates across both indicators.

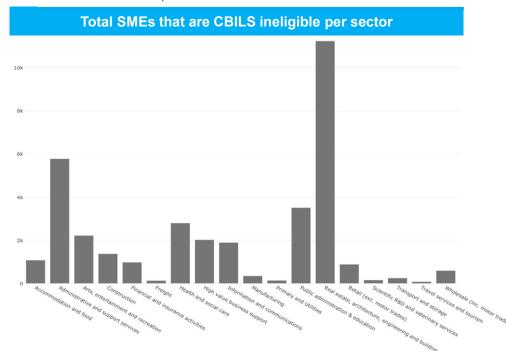




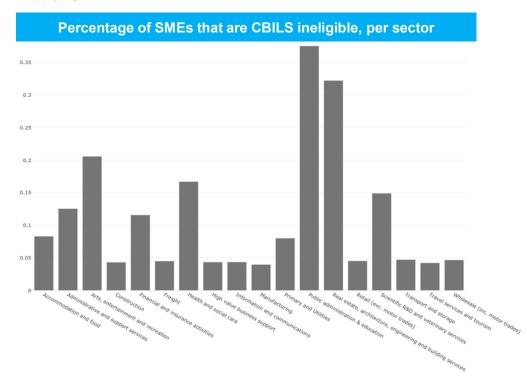
## Which sectors have the highest numbers / percentages of CBILS ineligible SMEs?

A score was computed based on the number of companies in the sample ineligible for CBILS, as well as the percentage of each sector ineligible for CBILS. Eligibility is principally determined by SIC code. Other criteria for CBILS eligibility Corona Virus Business Interruption Loan Scheme (CBILS) Eligibility are:

- Must be UK-based in its business activity
- Have an annual turnover of no more than £45 million
- Have a borrowing proposal which the lender would consider viable, were it not for the current pandemic



- Self-certify that it has been adversely impacted by the coronavirus (COVID-19)
- Not have been classed as a "business in difficulty" on 31 December 2019, if applying to borrow £30,000 or more

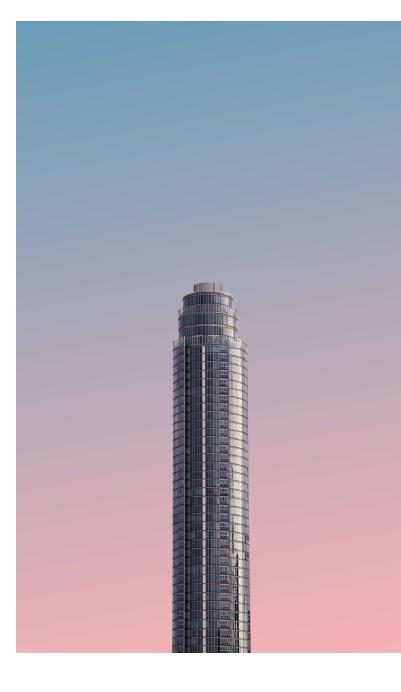


## SME risk scenario based on combined indicators

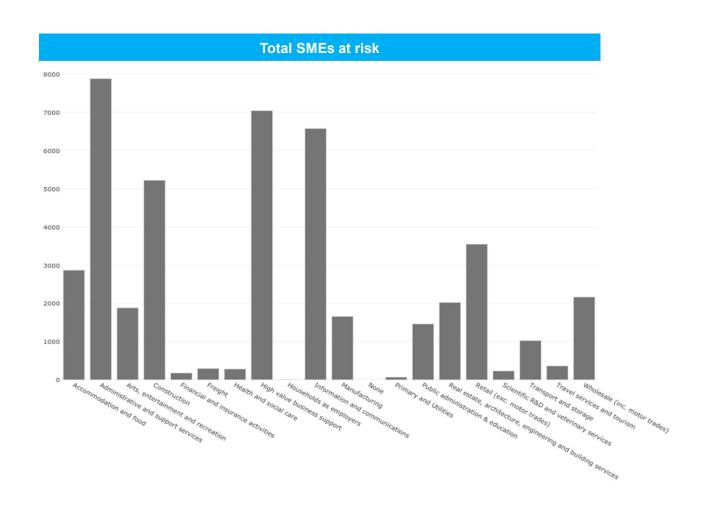
The previous impact measures and risk indicators can be combined at the individual company level to give a London-centric indication of where the greatest exposure of SMEs may be under certain scenarios.

The scenario used here considers a company to be at-risk if any aspect of the company's business falls under a section the OBR reference scenario as having a greater than 25% drop in output and any of the following are true:

- The company has a liquidity score in the bottom 10% for the industry section
- The liquidity score is in the bottom 20% and any of the following are true:
  - The company is not eligible for CBILS
  - The company has a debt-to-assets solvency ratio in the top 20% for the industry section
  - The company has a credit risk of high or very high
  - The liquidity score is in the bottom 30% and the company has a credit risk of very high
- This scenario should not be interpreted as a forecast, but rather as a presentation of a particular risk profile.
- Absolute numbers of companies at risk can be considered in the sample used which weights the score
  towards sectors with a larger number of companies. Alternatively we can consider the percentage of SMEs
  at risk within each sector under this scenario. For clarity, sectors with fewer than 5,000 sampled SMEs
  have been removed from the latter.
- OBR reference scenario not available for SIC sections R (arts, entertainment and recreation), E (water supply; sewerage and waste management) and D (electricity, gas, steam and air-conditioning supply).
   Alternative forecasts were considered to decide whether or not a greater than 25% drop was appropriate for these sections.



### Which sectors have more SMEs at risk?



~7800

Administration and support services

~7000

High Value Business Support

~6550

**Information and Communication** 

~5000

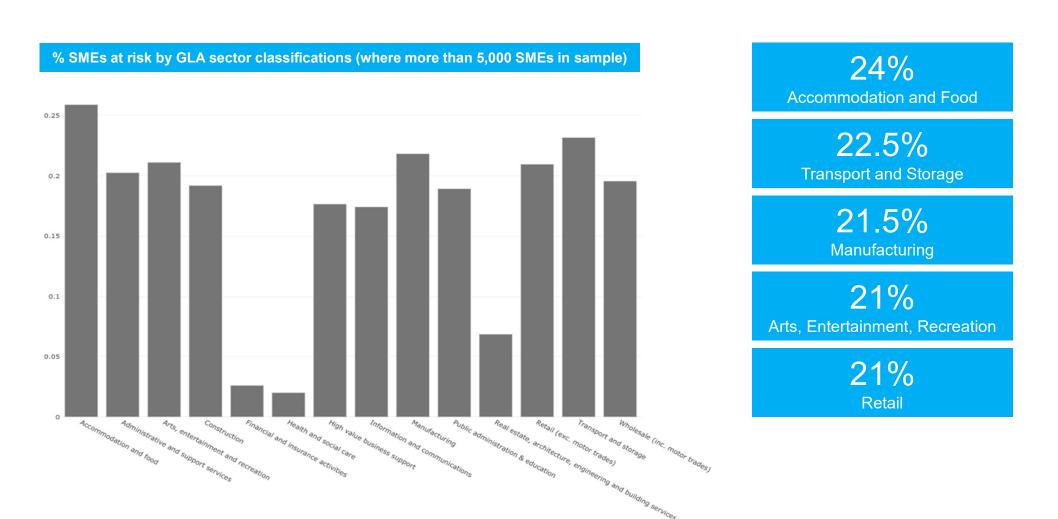
Construction

~3600

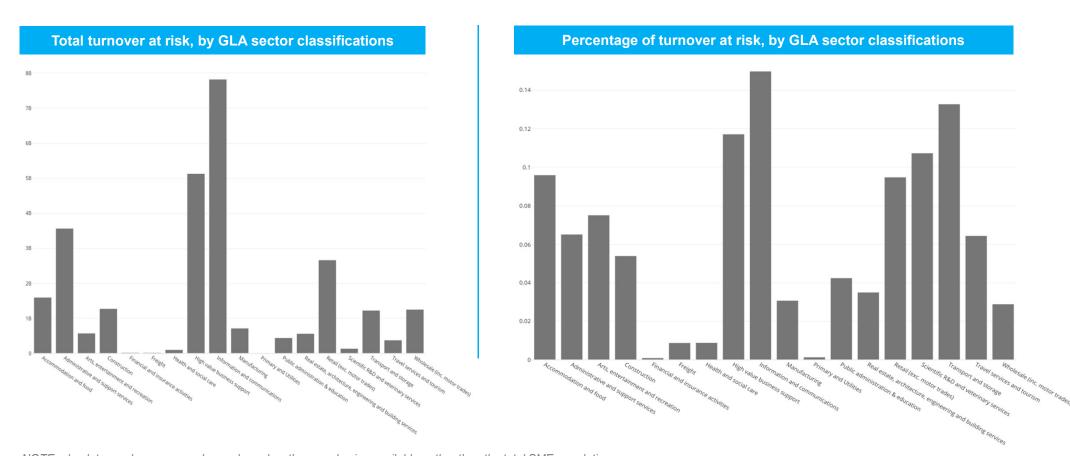
Retail (exc. Motor)

NOTE: absolute numbers are based on the sample size available, rather than the total SME population, so proportions indicate the level of risk.

## Which sectors have a higher percentage of SMEs at risk?



## Which sectors have the highest risk scores and % of turnover at risk?



NOTE: absolute numbers are, as always, based on the sample size available, rather than the total SME population.

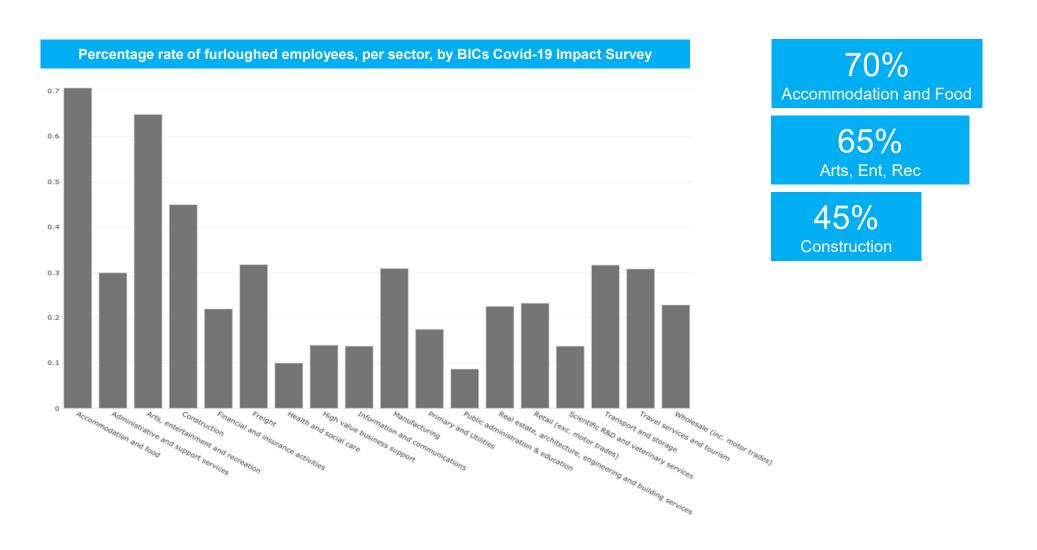
## **Key Impact Analysis: Employment**

#### Sector employment analysis

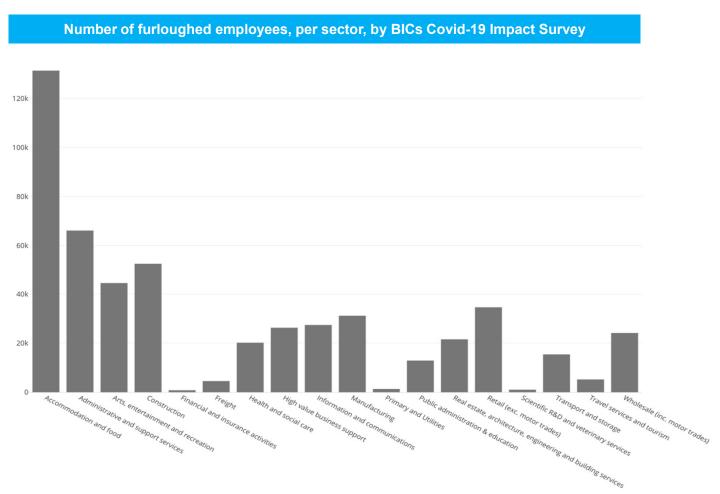
- An absolute furlough score and a percentage of employees furloughed score was computed using the number of reported employees of individual companies together with the reported furlough rates in the BICS COVID-19 impact survey.
- Data contributed by Burning Glass was added to the analysis. This assesses and gathers job advertisements from across multiple digital sources and aggregates information broken down by SIC code, as well as city level granularity.
- Employees at risk is calculated by identifying each individual company at risk with a reported total employees' figure and identifying those employees to be at risk.
   Percentages are calculated relative to the total turnover or employees of the corresponding subsample of companies with the relevant data reported.
- It is important to note that in examining employment, furlough rates data is derived from ONS Business Impact COVID-19-1 9 (BICS) survey as this is the most accurate and timely data available at the time of analysis, HMRC data has since become available, which may create some differences across London sectors and boroughs.



## Which sectors have the highest % rates of furloughed employees?



## Which sectors are estimated to have the most furloughed employees?



130,000

Accommodation and Food

65,000

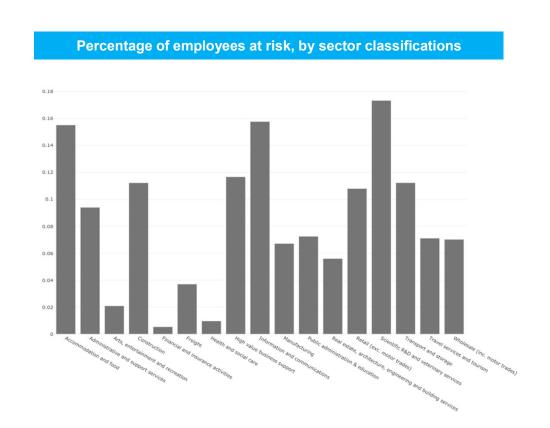
Administration and Support Services

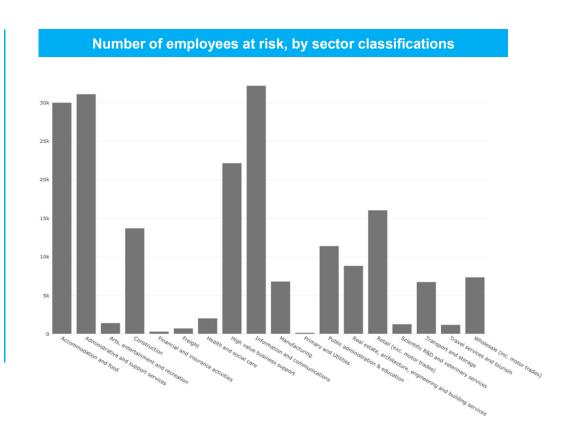
47,000

Construction

NOTE: absolute numbers are, as always, based on the sample size available, rather than the total SME population.

## Which sectors are projected to have the most employees at risk?

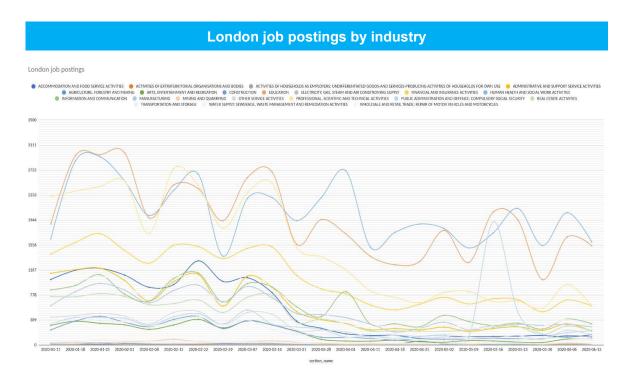




NOTE: absolute numbers are, as always, based on the sample size available, rather than the total SME population.

## Which sectors have seen the sharpest decreases in job posting for the year?

- It is possible to compare indicators across data sources for validation and further insight. Here is data from Burning Glass tracking online job advertisements in London over time, broken down by sector.
- One can compare the percentage drop in advertisements to furlough rates and employment at risk. There is a spike in advertisements in May for public administration and education, which one might hypothesise to be a result of a public sector COVID-19-related recruitment drive.



#### GLA sectoral job posting % drop January - June **GLA Sector** = %drop Accommodation and food 84% Travel services and tourism 81% Administrative and support services 76% Real estate, architecture, engineering and building services 75% High value business support 74% Scientific R&D and veterinary services 74% Freight 73% Transport and storage 73% Arts, entertainment and recreation 70% Retail (exc. motor trades) 69% Wholesale (inc. motor trades) 69% Information and communications 62% Financial and insurance activities 57% Manufacturing 54% Primary and Utilities 48% Construction 47% Public administration & education 20% Health and social care 3%



## Part 3: Impact Across London Geographies

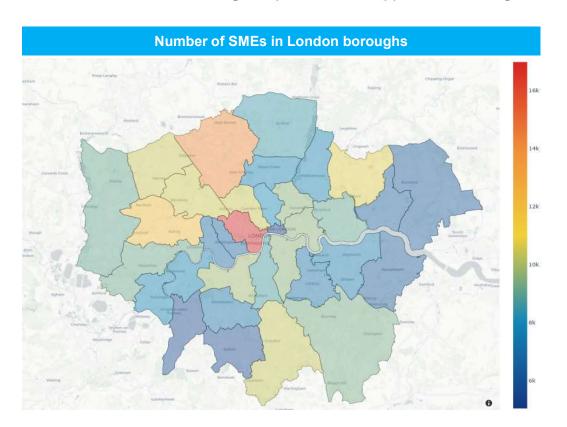
Concentrations and employee movement

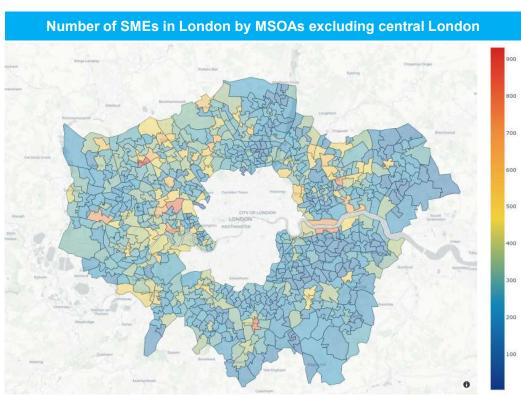
Three key impact analyses:

- Turnover
- Risk
- Employment

### Where are SMEs concentrated across London?

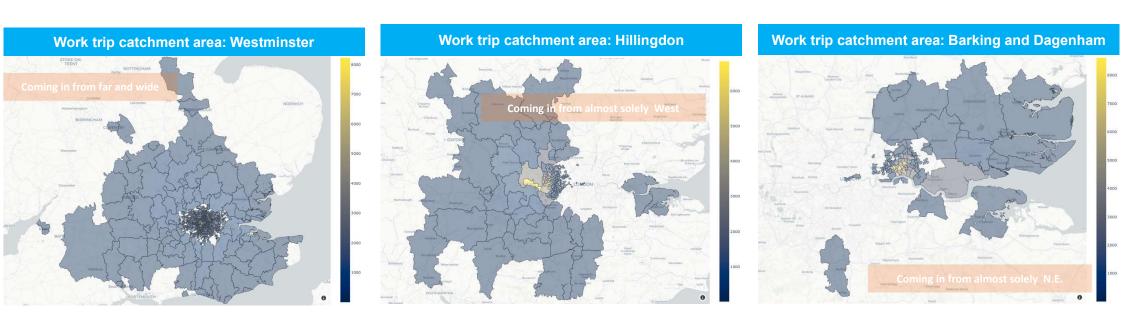
- These maps show the ways that SMEs are located across the boroughs of London and by MSOA based on a sample.
- The number of SMEs by location in the sample was initially obtained by filtering on financial constraints required to be considered as an SME as well as removing companies which appeared to be registered at the address of an accountancy/company registration service.





## Employee movement across the Greater London region

- The maps below show a high-level representation where from, and how far employees that work in a specific area of London come
  from to their place of employment. Understanding where employees live and where they work and taking into consideration the need to
  commute to jobs is an important factor.
- This shows that many areas of London attract employees from a very wide area, but there is some geographic preference for the Outer London boroughs.
- The design and deployment of interventions might be determined by both the GLA as well as local authorities based on a deeper understanding of population movement and its relevance to city planning, transport, and services.



### Key impact analysis: Turnover

#### Location turnover impact analysis

Turnover changes across London's SME's can help to illustrate the degree to which a borough or MSOA's businesses may be experiencing impacts, and how and where appropriate recovery efforts might be deployed.

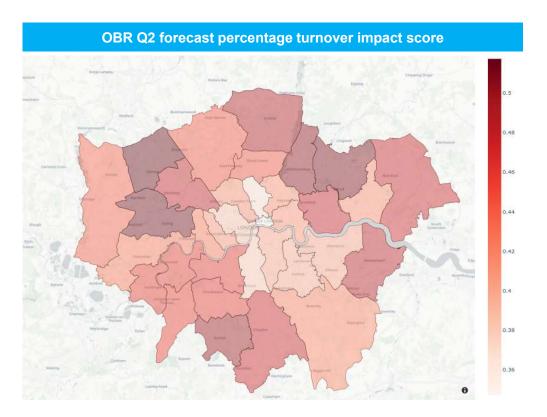
Multiple inquiries are possible when examining the revenue of SMEs at the borough level and an understanding of the mix of sectors is needed to draw real takeaways. Percentages changes were calculated for an area with respect to the geographic area.

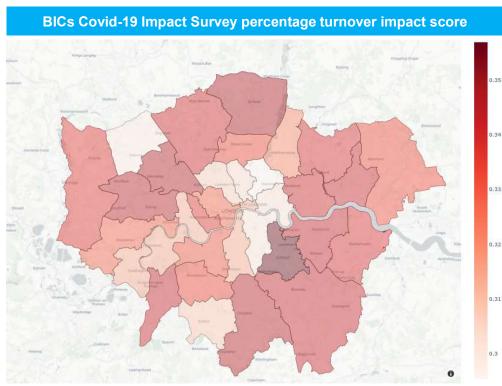
#### **Key Takeaways:**

- A negative percentage impact on turnover is spread over London with all areas seeing a score of between 30–50%.
- Areas in central London seem less negatively affected under this percentage indicator. Similarly, while Lewisham, Enfield and Brent are estimated to have seen the largest reported percentage turnover drop, the difference is marginal, and all areas have seen a drop between 30–35%.
- When considering the sample's total absolute drop across areas when removing Central London from the map since turnover contribution being heavily centralised distorts the scale, providing little insight. Central London is displayed separately.
- Discounting Central London, under both indicators, we see a strong impact provided by SMEs in the west of London, likely due to larger turnover contribution.

### Percentage turnover impact

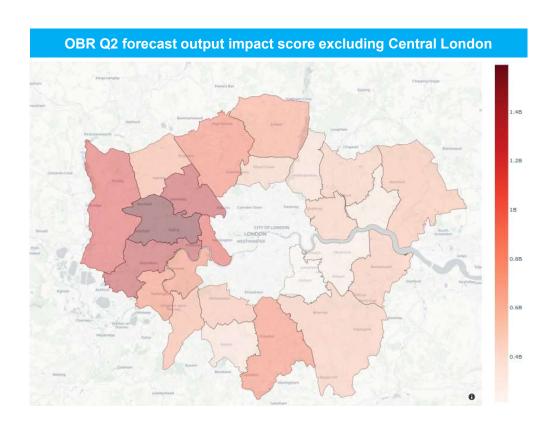
• OBR forecasting and BICS Covid-19 impact surveys have no geographical dimension, but it is possible to use addresses of individual companies as well as the reported turnover for each company to recalculate percentage score relative to the total turnover across as companies in a geographic area.

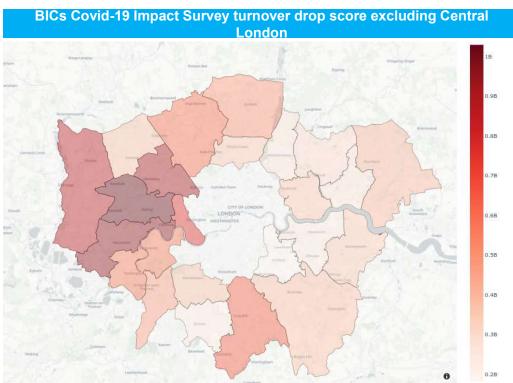




## Total tumover impact, excluding Central London

• The impact can be presented as a total drop across the area based on reported values, which considers the different turnover contributions for different areas. The scales here should be interpreted as a relative score.

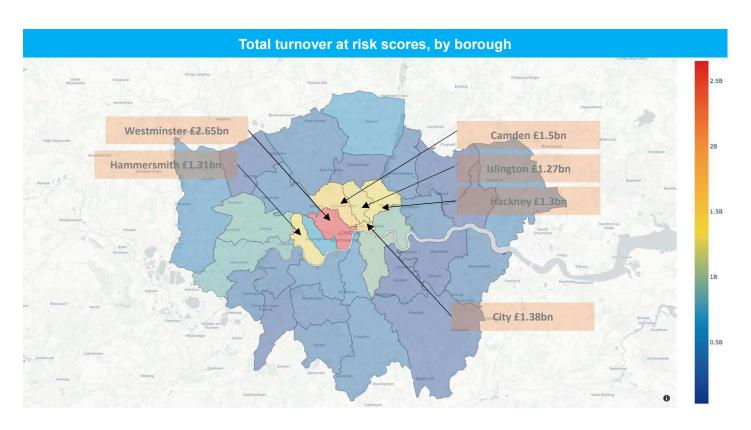




### Which areas have the highest tumover at risk?

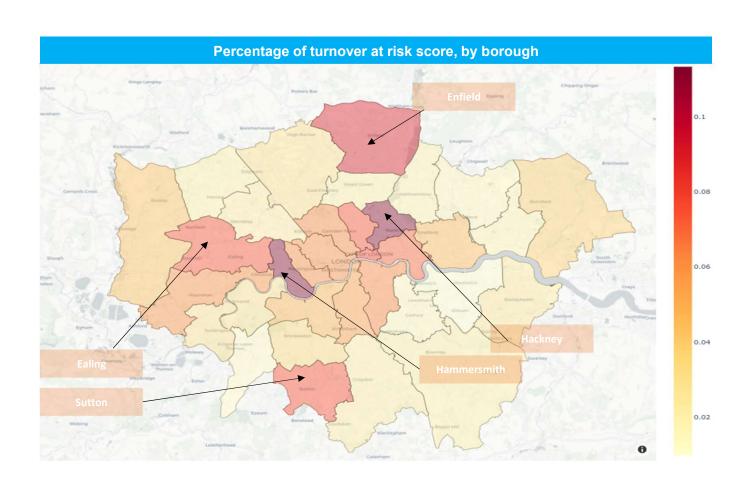
Revenue at risk is calculated by identifying each individual company at risk with a reported turnover figure and identifying that turnover to be at risk. Basic adjustment is applied to account for varying reporting rates. Percentages are calculated relative to the total turnover of the corresponding subsample of companies with the relevant data reported.

The impact can be presented as a total drop across the area based on reported values, which considers the different turnover contributions for different areas, or as a percentage drop seen on page 54.



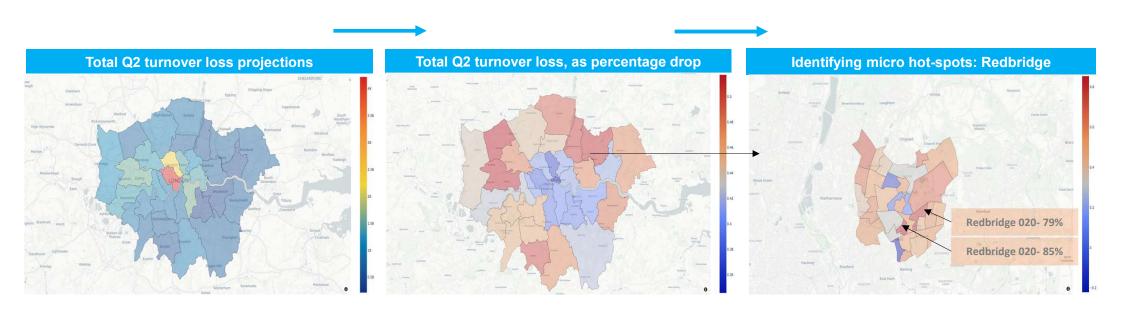
NOTE: absolute numbers are, as always, based on the sample size available, rather than the total SME population.

## Which areas have the highest percentage turnover at risk?



### Where are micro hot spots of tumover drops?

- It is possible to identify revenue loss hot spots at a very granular level. Starting with an overall view of where total revenues are projected to fall, then calculating the percentage drop based on previous performance.
- It is possible to dig deeper into specific areas (in this case, Redbridge), and identify smaller areas ( to the street level) to pinpoint areas or even locations and specific businesses.



## Key impact analysis: Financial risk

#### Risk indicators by geography

Using individual companies' reported accounting metrics, combined with their addresses, it is possible to compute a range of indicators that can be used to assess exposure.

The same indicators as previous risk sections are presented, including current liquidity score, debt-to-assets ratio, credit risk band, CBILS eligibility.

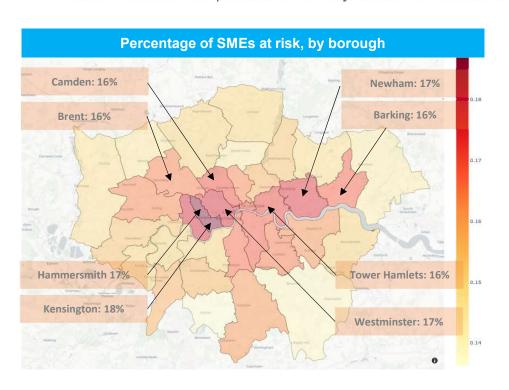
These indicators suggest a disparity between East and West of London as well as North and South of London.

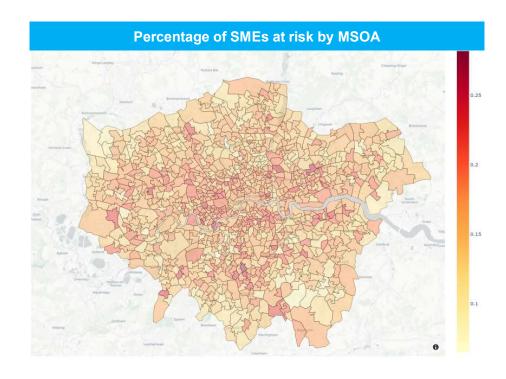
- East London and North–West London have generally lower liquidity.
- Barking and Dagenham, and Newham have the worst debt-to-assets ratios.
- North London appears to suffer higher credit risk.
- CBILS ineligibility is generally concentrated in central boroughs, which is likely due to prevalence of certain industries.



### Where are the highest concentrations of high-risk SMEs?

- The previous impact measures and risk indicators can be combined at the individual company level to give a London-centric indication of where the greatest exposure of SMEs may be under certain scenarios.
- At the borough level, there is a focus of risk in Central London, East London and South-East London. However breaking down at a smaller resolution it is possible to identify clusters of concern across London.

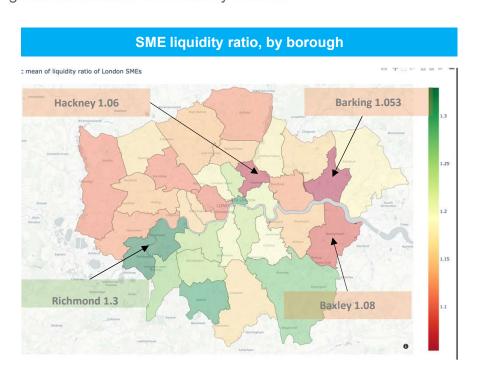


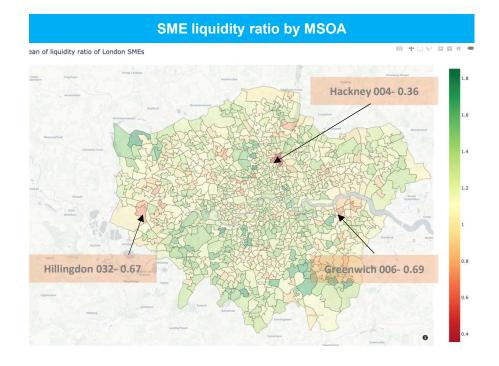


### Where are SMEs with lowest liquidity ratios?

- Liquidity ratios indicate the degree to which an SME may have cash on hand to deal with unforeseen financial impacts or expenses.

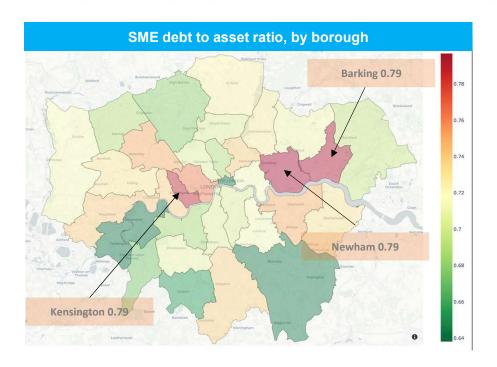
  Higher liquidity ratio may mean that the SMEs in that area were better equipped to weather a lockdown or loss in business.
- Geographic clusters of high or low liquidity ratios may indicate the clustering of certain kinds of traditionally low-liquidity businesses.
   It could also indicate that businesses in certain areas are lower income and therefore the operating and revenue margins for their goods or services is inherently thinner.

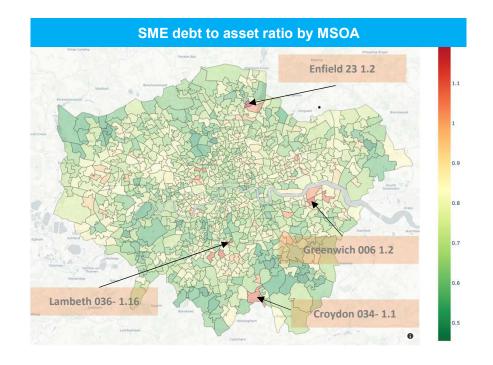




## What are the Debt to Assets ratio of SMEs across boroughs and MSOAs?

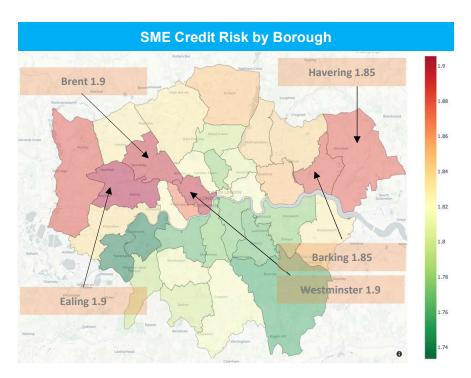
- The debt to asset ratio can help explain how capable or likely SMEs are to pay debts. Geographic concentrations of high or low debt to asset ratios may suggest clusters of SMEs that are carrying more debt and therefor less able to sustain during a downturn.
- The variability by borough and MSOA should be examined considering the variation across geographies, but debt to asset ratio is generally more revealing when examined at the sectoral level
- The range of solvency may look extreme on the map, but the ranges between the greatest and least are only 0.156.

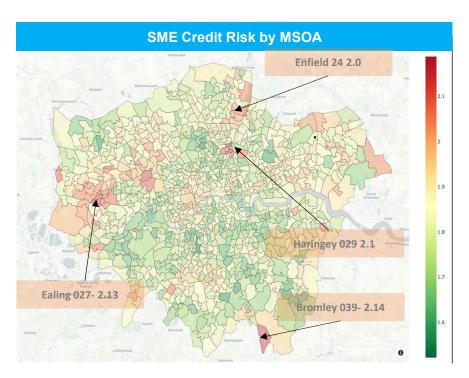




## What is the credit risk distribution of SMEs across boroughs and MSOAs?

- Credit risk may indicate that an SME has a history of both taking out and paying on debt on a scale of 1-4.
- Lower credit scores are not always directly related to but are a good indication of poor repayment or other negative financial behaviors. Lower credit scores may also indicate the ability of the SMEs to access lines of credit.
- The ranges of credit risk across boroughs is not extreme at approximately 1.73 to 1.95 across boroughs





NOTE: Credit risk is a proprietary indicator and groups companies by credit score into low, medium, high and very high bands. Low is scored as 1 and very high as 4.

## Key impact analysis: Employment

#### Location employment analysis

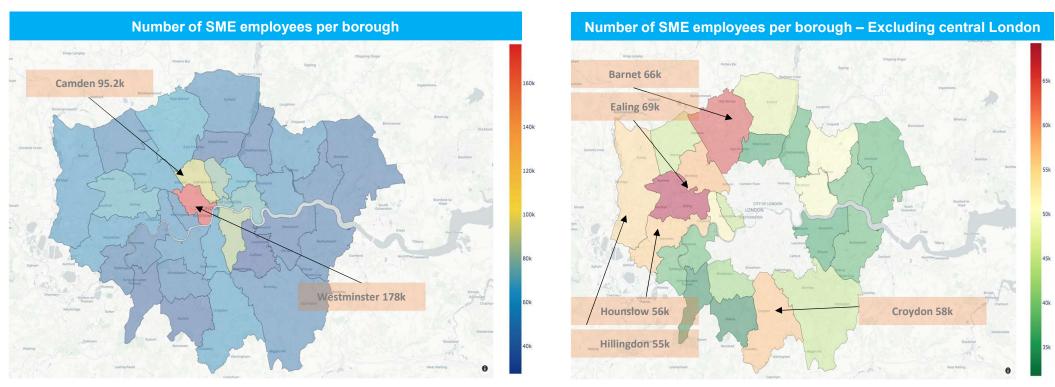
An absolute furlough score was computed as well as a percentage of employees furloughed score using the number of reported employees of individual companies together with the reported furlough rates in the BICS Covid-19 impact survey.

Employees at risk is calculated by identifying each individual company at risk with a reported total employees' figure and identifying those employees to be at risk. Basic adjustment is applied to account for varying reporting rates. Percentages are calculated relative to the total turnover or employees of the corresponding subsample of companies with the relevant data reported.



### How are SME employees distributed across London?

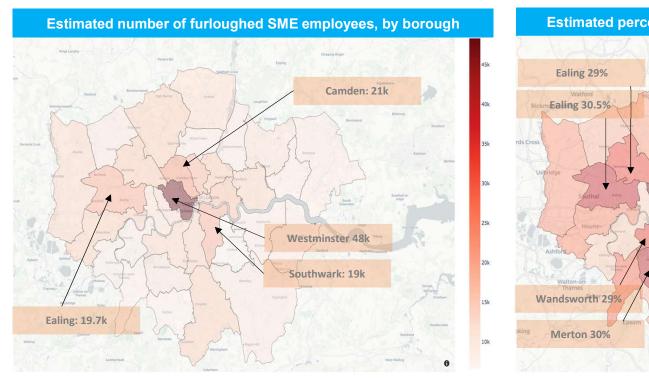
- These maps show the ways that SMEs employees are clustered and concentrated across the boroughs of London and by MSOA.
- With Central London boroughs removed, more can be understood about the clustering and concentration of SME employees in Outer London.

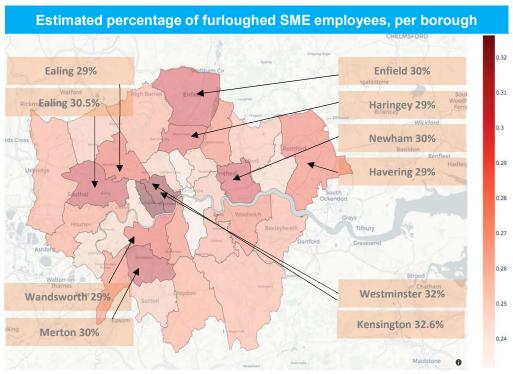


NOTE: absolute numbers are, as always, based on the sample size available, rather than the total SME population.

## Where is the highest increase in furloughed employees?

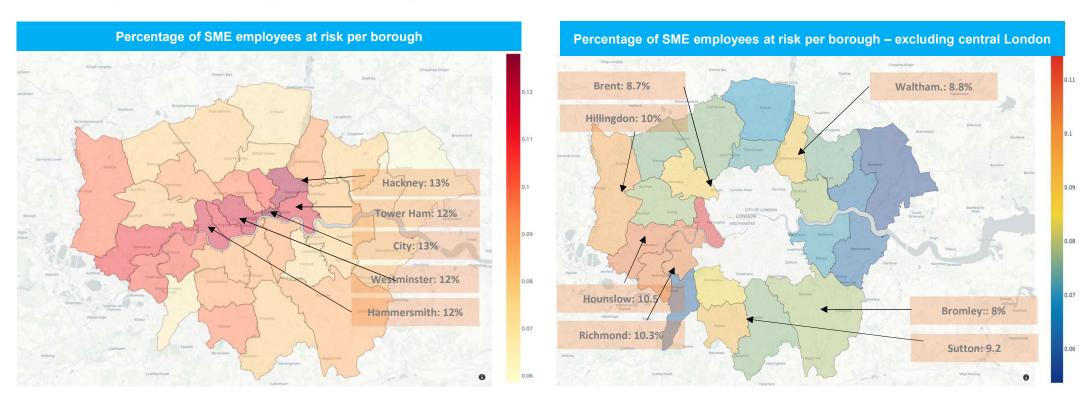
- Comparing the total number of furloughs and the estimated percentage of furloughed employees by borough can give us a sense of not only where are jobs lost, but where there are current and future concentrations of higher unemployment as part of the total population.
- This can be broken down to the census level to identify more specific pockets or align it with centers of commerce and residence.



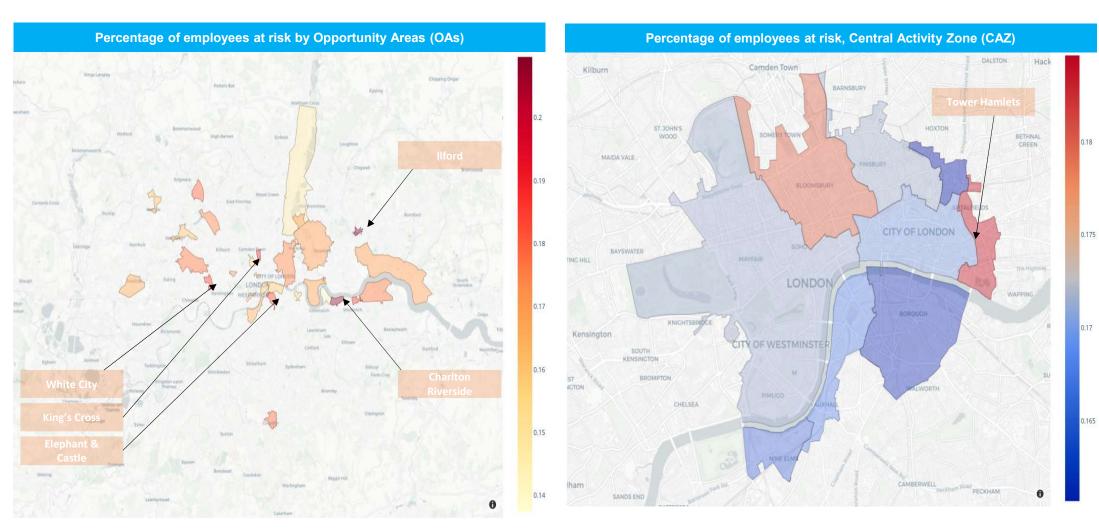


## Where are specific employee risk hot spots?

- These maps show the percentage of SME employees at risk distributed London to help identify areas where employment risk impacts a specifically high percentage of the local population.
- This can help identify specific areas where employment programs, job retraining, and financial support may drive the most impact for the largest amount of individuals in need.
- To mitigate for the skew created with the centralisation of activity in inner London, we provide a view with Central London boroughs removed, which results in jobs at risk as a percentage of population shifting to West London.



## What percentage of employees are at risk in key activity and opportunity areas?



## Other geographic dimensions and findings

12,492

SMEs in the sample are registered within 100m of Locally Significant Industrial Sites<sup>1</sup>

16%

of these are at risk

~11,000

SMEs in the sample are registered within 100m of Strategic Industrial Land<sup>2</sup>

14%

of these are at risk

43,453

SMEs in the sample are registered within an adopted Opportunity

Area (OA)<sup>3</sup>

13%-21%

of these are at risk

30,960

SMEs in the sample are registered in the Central Activities Zone (CAZ)

16%-18%

of these are at risk

861

SMEs in the sample are registered in the Isle of Dogs

17.7%

of these are at risk

<sup>&</sup>lt;sup>1</sup> https://data.london.gov.uk/dataset/locally\_significant\_industrial\_sites

<sup>&</sup>lt;sup>2</sup> https://data.london.gov.uk/dataset/strategic\_industrial\_land

<sup>&</sup>lt;sup>3</sup> https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/opportunity-areas



## Part 4: Deep Dives

Deep Dive 1: High Streets and Town Centres (HSTC)

Deep Dive 2: Night-time Economy (NTE)

Deep Dive 3: Geographic Deep Dive into Newham

Deep Dive 4: Creative and Cultural Industries (CCI)

# Deep Dive 1: High Streets and Town Centres (HSTC)



Introduction

#### Impact Analysis:

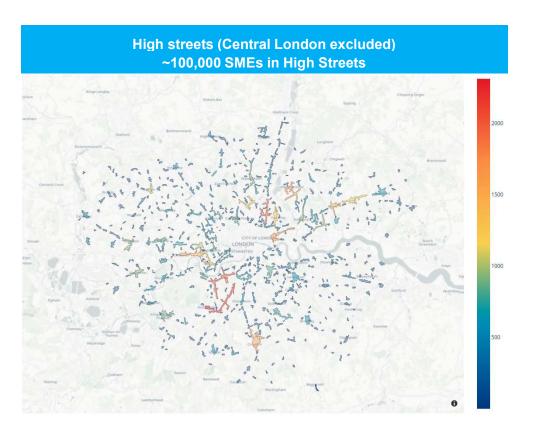
- SME HSTC location analysis
- SME HSTC turnover analysis
- SME HSTC employment analysis
- SME HSTC movement analysis

### Introduction

- High streets are vital to London. Two thirds of London's developable land is on or near a high street, and outside the centre of London, over half of London's jobs are spread across 600 high streets.
- Two thirds of Londoners live within a five-minute walk of a high street, and almost half of Londoners do not leave their local area daily.
- Using GLA-defined high street boundaries, it is possible to examine SMEs operating in a high street environment.
- For most indicators, SMEs within 100 meters of a high street were considered to allow for geolocation errors as well as considering nearby SMEs impacting the high street but not necessarily located directly on the main high street.

Source: https://www.london.gov.uk/what-we-do/regeneration/high-streets/supporting-high-streets

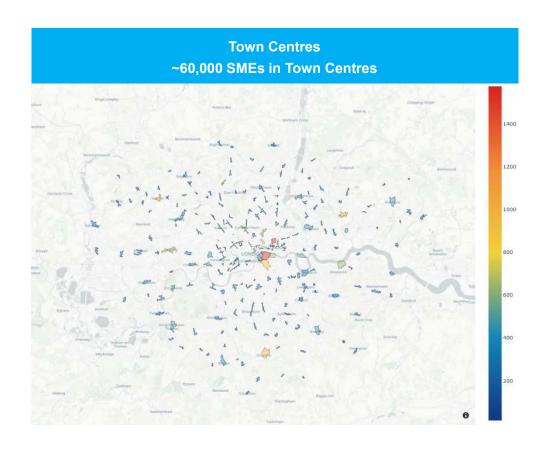
## How are SMEs distributed across high streets?







## How are SMEs distributed across town centres?



#### **Town Centres SMEs by borough**

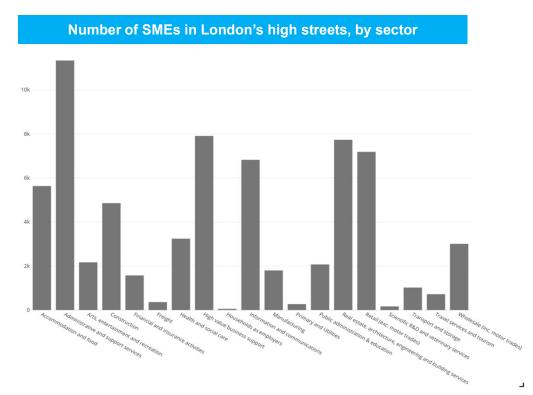


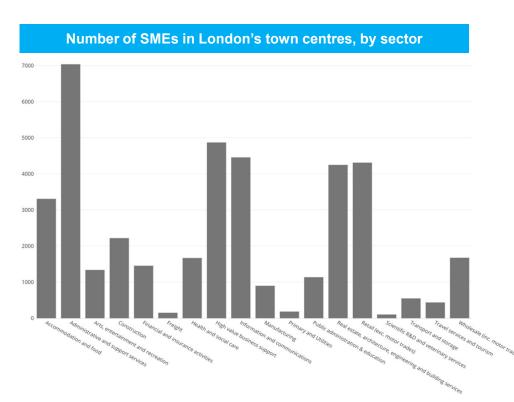
#### **Town Centres with over 700 SMEs**

Shoreditch	1,576
Bankside and The Borough	1,570
Croydon	940
Harrow	940
llford	917
Elephant and Castle/ Walworth Road	871
Farringdon	860
High Holborn/ Kingsway	778
Covent Garden/ Strand	736
Ealing	702

## Which SME sectors are most prevalent in high streets and town centres?

- There is no significant difference in terms of the distribution of SME sector types across high streets and town centres.
- There is a difference in the total numbers within each category, which is a derivative of the fact that there are 589 high streets vs. only 222 town centres across London

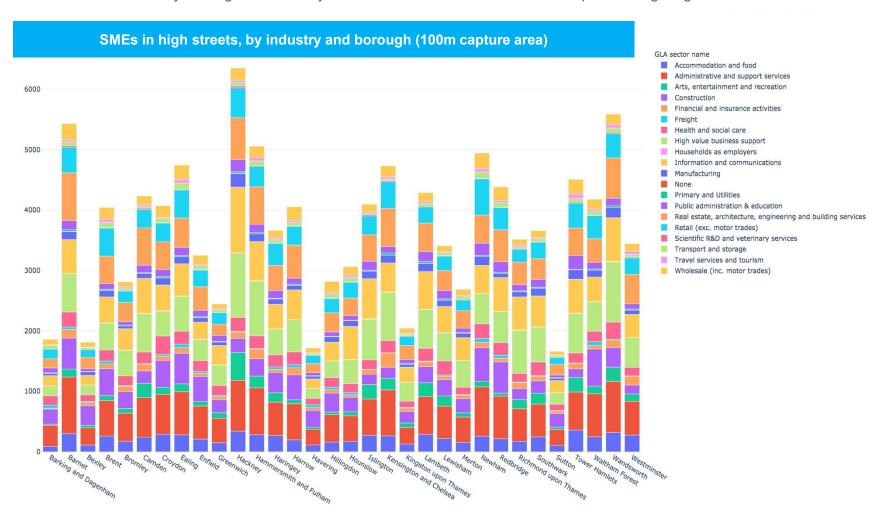




NOTES: Numbers are based on our sample and broken down by GLA Sectors. In these charts, we restrict to SMEs within the boundaries, rather than within 100m, to capture more accurately the high street/town center sectors

# What is the business profile of high streets in each borough?

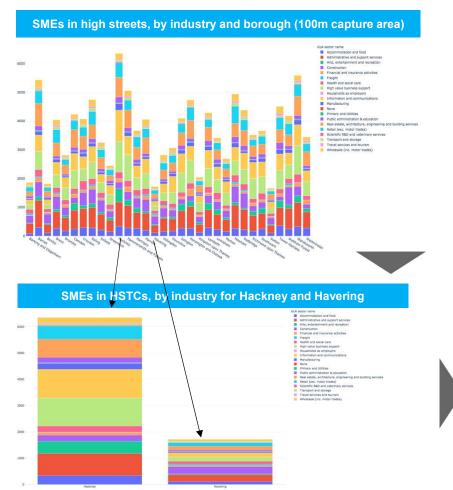
We can break down HSTC locations by borough and then by sector to understand the SME makeup of borough high streets.



# What is the business profile of high streets in each borough?

#### Hackney & Havering

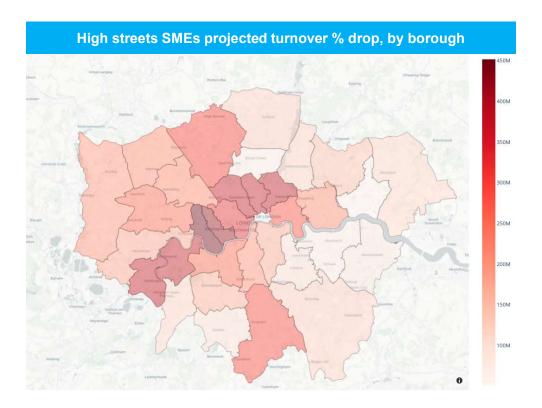
This example compares Hackney, which has the highest number of SMEs in high street locations, with Havering, which has the lowest.

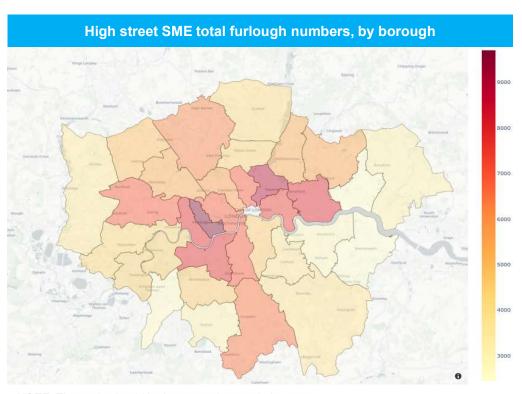


High % points gap = larger difference in the business profile makeup						
Category	Hackney #	Hackney %	Havering #	Havering %		
Accommodation and Food	340	5.36%	112	6.54%		
Administrative Support	842	13.27%	259	15.12%		
Arts, Entertainment, and Recreation	463	7.30%	35	2.04%		
Construction	232	3.66%	277	16.17%		
Financial and Insurance	103	1.62%	46	2.69%		
Freight	14	0.22%	47	2.74%		
Health and Social Care	231	3.64%	109	6.36%		
High Level Business Support	1063	16.76%	159	9.28%		
Information and Communications	1090	17.18%	160	9.34%		
Manufacturing	225	3.55%	43	2.51%		
utilities	24	0.38%	11	0.64%		
Public Administration and Education	201	3.17%	49	2.86%		
Real Estate and Architecture	693	10.93%	150	8.76%		
Retail (excluding Motor)	495	7.80%	137	8.00%		
Science R&D	30	0.47%	0	0.00%		
Transport and Storage	63	0.99%	26	1.52%		
Travel and Tourism	34	0.54%	13	0.76%		
Wholesale (Including Motor)	200	3.15%	80	4.67%		

# High street impact by borough

- The OBR reference scenario was used to estimate output impact scores due to lockdown by combining with turnover data for individual companies to provide a weighting, adjusting for different reporting rates.
- Estimated furlough numbers across the high street SMEs shows that town center furlough numbers appear highest in Westminster and Southwark, while high streets are, unsurprisingly, seeing high furlough numbers in boroughs across London.
- Both indicators present a similar picture of high street impact.



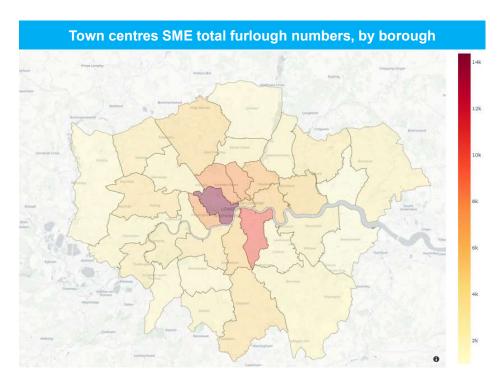


NOTE: The scale should be interpreted as a relative score.

## Town Centre impact by borough

- The OBR reference scenario was used to estimate output impact scores due to lockdown by combining with turnover data for individual companies to provide a weighting, adjusting for different reporting rates.
- Estimated furlough numbers across town centre SMEs shows that town centre furlough numbers appear highest in Westminster and Southwark, while high streets are, unsurprisingly, seeing high furlough numbers in boroughs across London.
- Both indicators present a similar picture of town centres.





# Where are workday visitors traveling to and from?

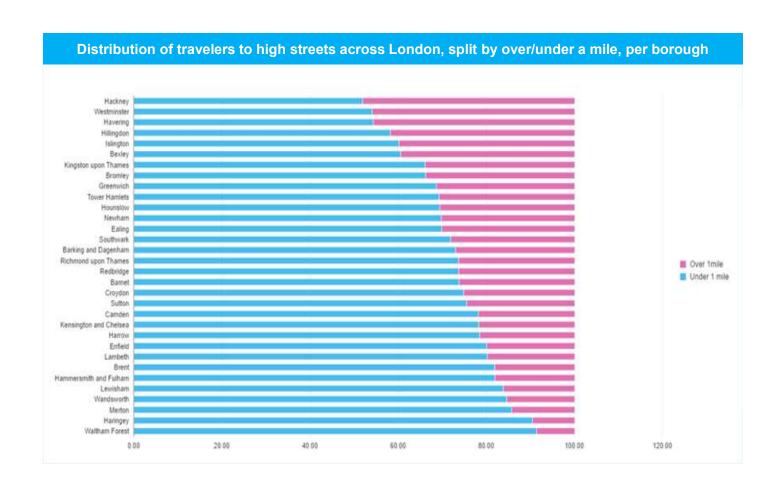
- Using mobility data it is possible to compare the workday related drop in the number of people travelling to high streets in each borough.
- The drop is not as large for workday visitors to high streets as in the general picture, which may indicate sectors more common on the high street include more key workers.
- For visitors to town centres, it is similar to the drop experienced across all of London, which may reflect the difference between the profile of SMEs located in town centres versus high streets.
- Central London boroughs have experienced a larger drop in town centre visitors than non-central boroughs. This may indicate more workday visitors to local town centres where they may previously have visited Central London.







# Which high streets attract people from far and wide?



- This shows the percentage of journeys under 1 mile and over 1 mile to high street destinations undertaken by people spending the working day in the high street area, pre-lockdown. The chart breaks this down by borough.
- This indicates which boroughs contain high streets which attract workday visitors from further afield versus the local area and could give an indication of potential impact distance of changes to high street activity.

# **Deep Dive 2: Night-time Economy (NTE)**



#### Impact Analyses:

- NTE SME distribution
- NTE and high streets
- NTE turnover analysis
- NTE risk analysis
- NTE employment analysis

# What sectors make up the NTE SMEs in London?



GLA group name

SEA

CLS

CLA

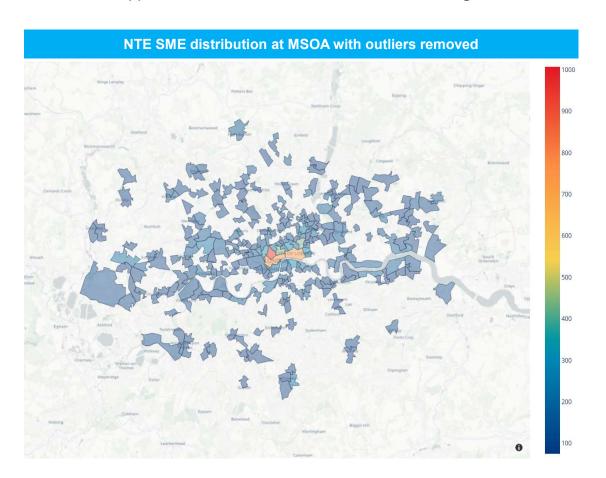
**HPS** 

#### Number of NTE businesses in each sub-category

Category	HPS	SEA	CLS	CLA
Accommodation and Food			1,174	11,872
Administrative Support		2,203		1,041
Arts, Entertainment, and Recreation				10,802
Construction				
Financial and Insurance				
Freight		3,028		
Health and Social Care	10,036			
High Level Business Support				
Information and Communications		10,357		
Manufacturing		690		
utilities				
Public Administration and Education	151	4,622		
Real Estate and Architecture				
Retail (excluding Motor)			4,709	
Science R&D		167		
Transport and Storage		2,902	1,973	
Travel and Tourism				
Wholesale (Including Motor)		1,943		

### Where are NTE SMEs concentrated?

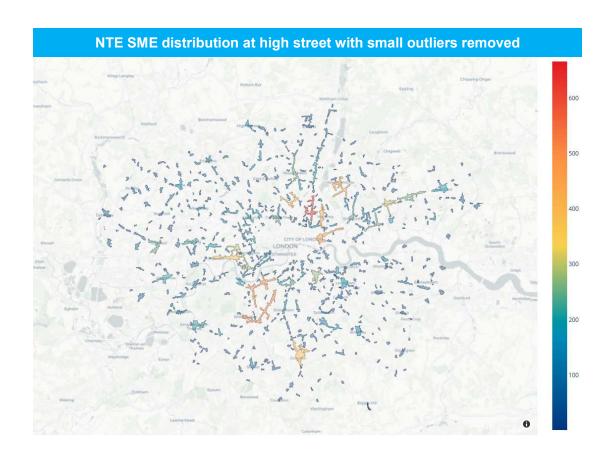
• By borough, cross-sector night-time economy SMEs are widespread across London, but when we break down to the MSOA level, clusters appear, and Central London is dominant with regards to concentration of night-time economy SMEs.



#### MSOA with over 200 Nighttime economy SMEs **MSOA** Count Westminster 013 1,007 Westminster 018 755 City of London 001 727 Hackney 027 418 Camden 028 412 Westminster 011 320 Islington 022 303 Southwark 002 285 Tower Hamlets 015 268 233 Hackney 021 Camden 027 215 Southwark 003 215 Camden 026 207 Ealing 015 203

# How are the NTE and high streets located?

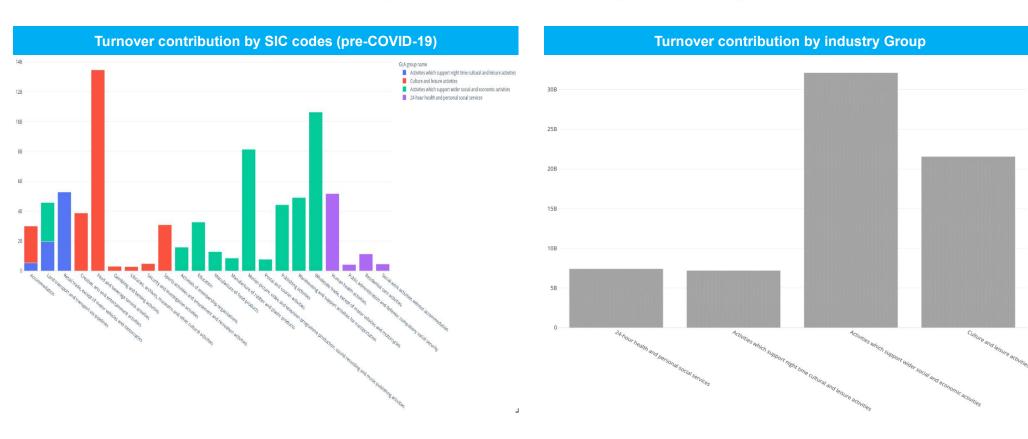
• To illustrate the potential impact of the night-time economy on the high street, one can consider NTE SMEs which are within 100 metres of a high street (boundaries supplied by the GLA) which results in the high streets have the highest concentrations of NTE SMEs.





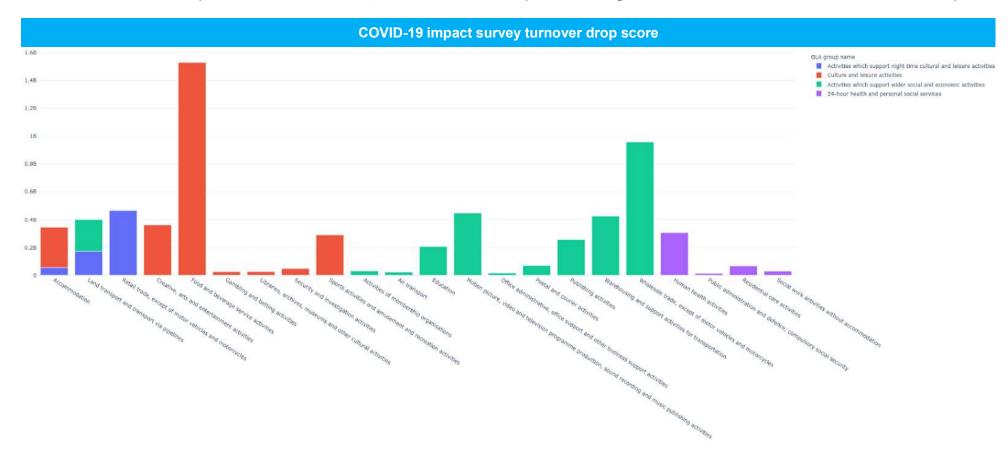
## Which NTE categories drive tumover?

- The estimated turnover contribution for the SME sample, adjusted for reporting rates, restricted to night-time economy SMEs are displayed.
- While food and beverage services contribute the most by SIC division, the whole industry grouping of activities which support wider social and economic activities contributes visibly more to revenue across the night-time economy.



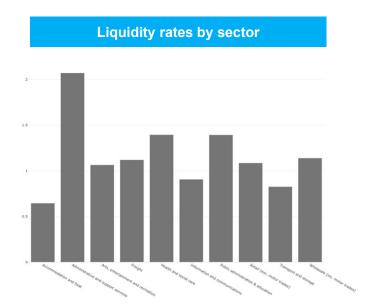
# What is the estimated impact on NTE SME turnover, by NTE sector?

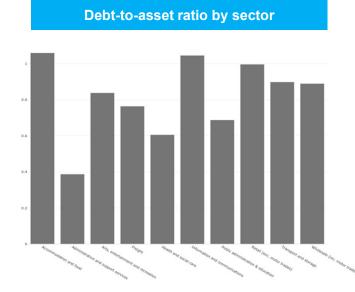
- The BICS Covid-19 impact survey was used to estimate turnover drop by combining turnover data for individual companies to provide a
  weighting, adjusting for different reporting rates.
- The scale should be interpreted as a relative score, due to the use of sampled data. Negative scores indicate a forecast of increase in output.

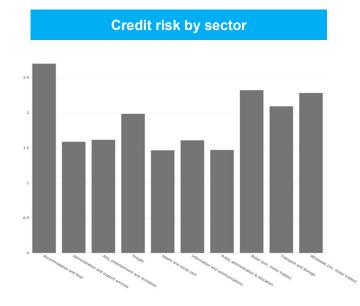


## Where is there higher and lower indicators of risk?

- Across the night-time economy Accommodation and Food SMEs operate with the lowest average liquidity levels and the highest
  average debt-to-assets ratio, although it is generally well understood that this sector operates with this profile (and this is not specific
  to the night-time economy SMEs either).
- The night-time economy supporting information and communications SMEs have a visibly higher average debt-to-assets ratio (greater than 1) than the overall information and communications sector across London (0.7).



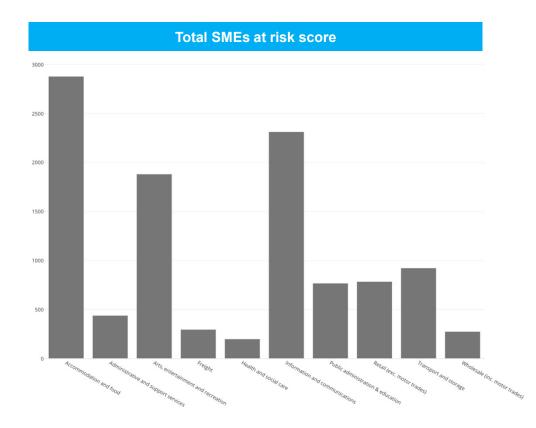


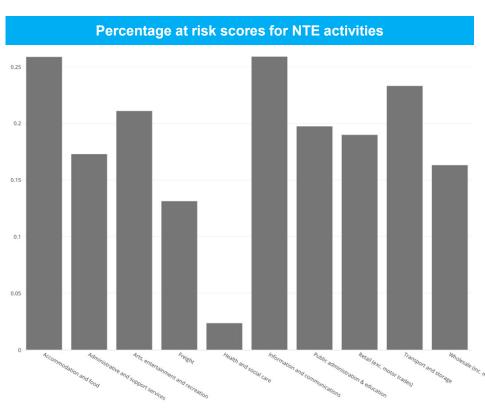


# Which categories have the most SMEs at risk?

• Graphs here show night-time SMEs at risk under the scenario we applied, where companies are considered at risk based on a combination of low liquidity and high leverage for their sector alongside credit risk (see high-level report for details on our scenario).

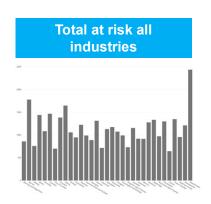


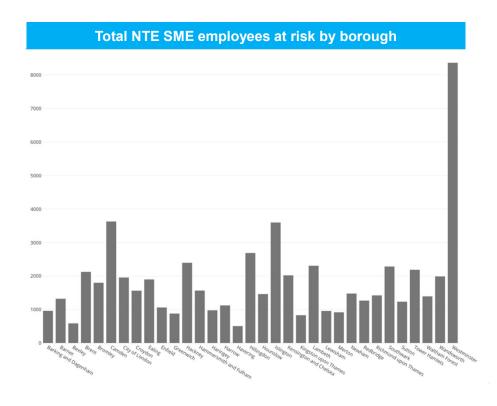


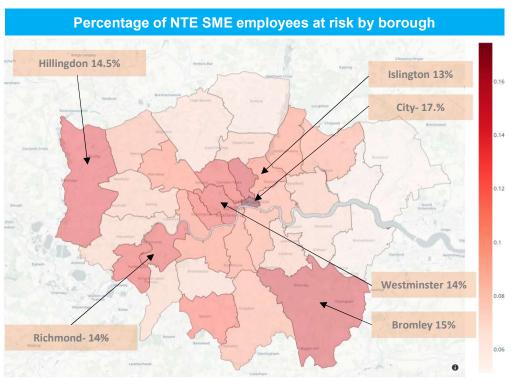


# Where are NTE employees at risk?

• Under this scenario it is possible to see where employment may be at risk in the night-time economy. In terms of absolute score the largest numbers of night-time economy employees at risk are in Westminster, Camden and Islington, although these areas also see larger numbers of employees at risk across all industries more generally.

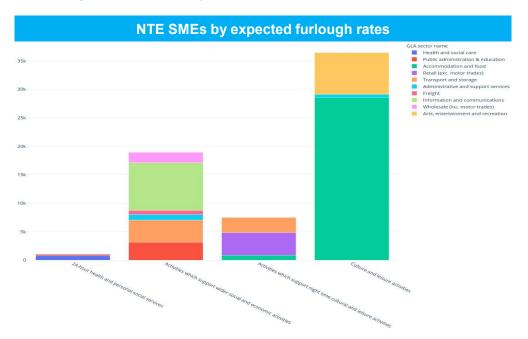


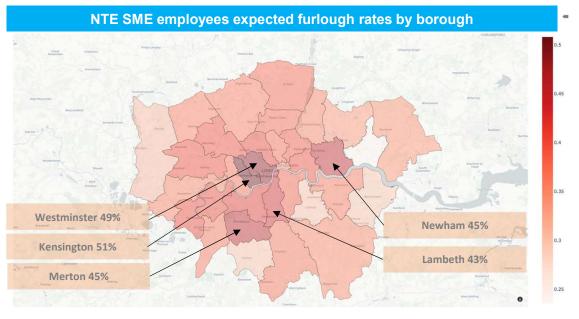




## Where are the estimated highest furlough rates for NTE SMEs?

- Estimated furlough levels across the night-time economy group shows the highest furlough score for culture and leisure activities.
- Within this industry group, by percentage, accommodation and food has a marginally higher furlough rate than arts, entertainment and recreation.
- The absolute score is significantly higher which is likely simply due to the larger number of employees working in this sector in the night-time economy.





# Deep Dive 3: Creative and Cultural Industries (CCI)



Introduction

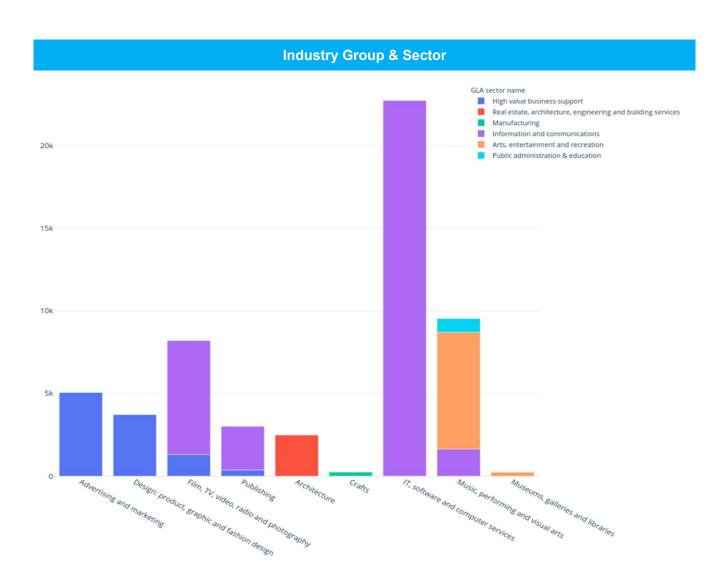
#### Impact Analyses:

- CCI SME distribution
- CCI and high streets
- CCI turnover analysis
- CCI risk analysis
- CCI employment analysis

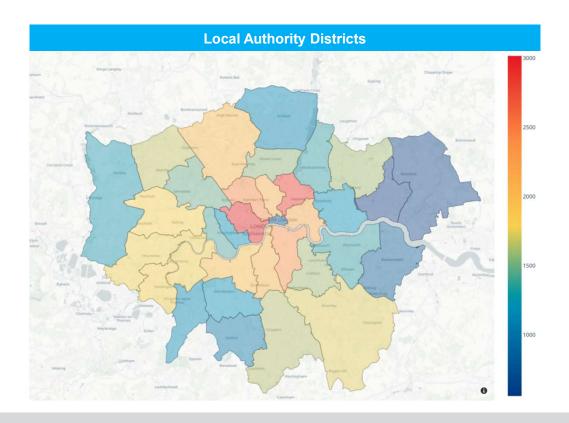
### Introduction

52,124 SMEs in the address filtered sample fall under one or more SIC codes that make up the creative and cultural industries (CCI) GLA cross-sector classification. This is the second largest cross-sector classification by number of SMEs in the sample.

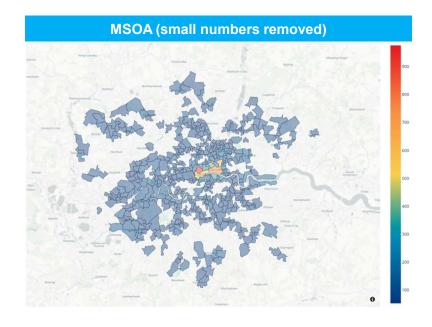
Displayed here is the breakdown of the number of SMEs in the sample with a secondary breakdown by sector.



## Distribution of SMEs by location



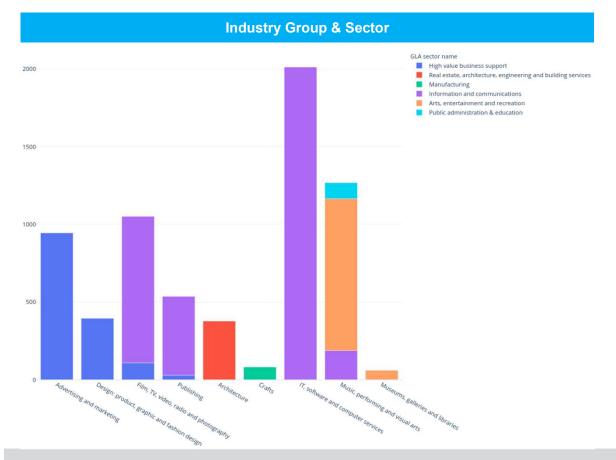
Aside from the expected higher numbers in Central London, CCI SMEs are found across London as might be expected given the diversity of business activities covered. Beyond Central London, there are visibly more CCI SMEs in West London areas.



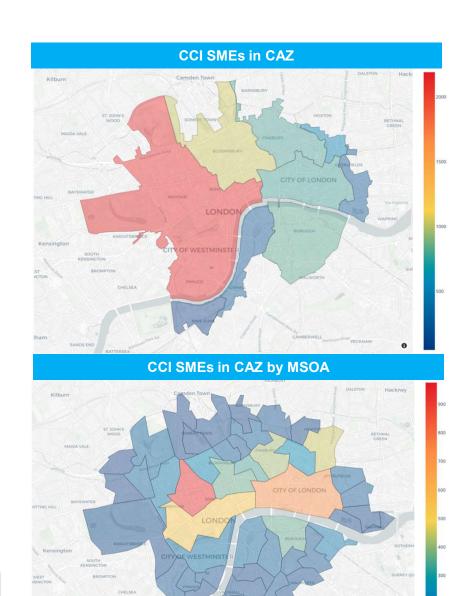
#### MSOA with over 180 CCI SMEs

Westminster 013	976
City of London 001	735
Hackney 027	608
Westminster 018	535
Islington 022	403
Camden 028	344
Southwark 002	338
Camden 027	309
Southwark 003	252
Hackney 021	228
Islington 023	215
Tower Hamlets 015	202
Camden 026	192
Hackney 023	187

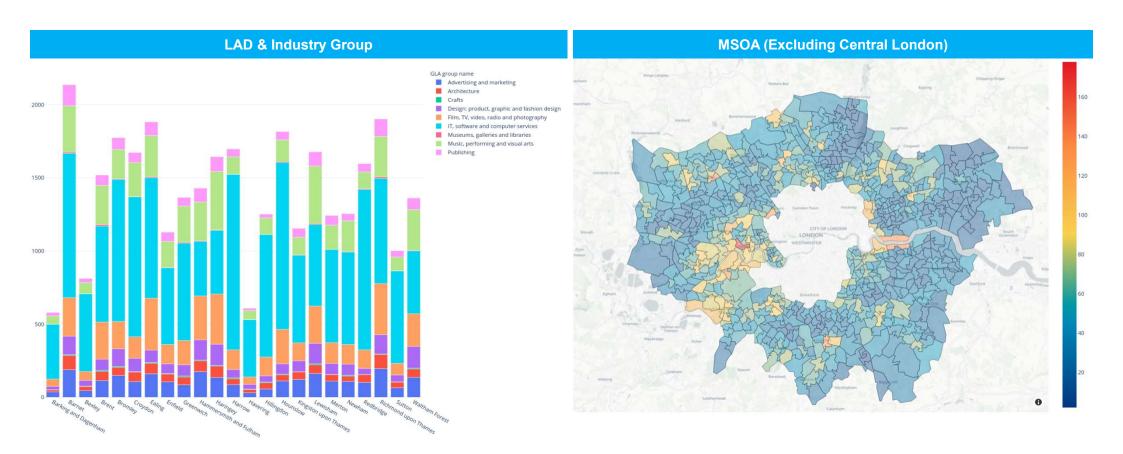
## **Central London CCI SMEs**



There are 6,358 CCI SMEs in the sample registered in the Central Activities Zone (CAZ), which is 12.2% of the total CCI SMEs in the sample.

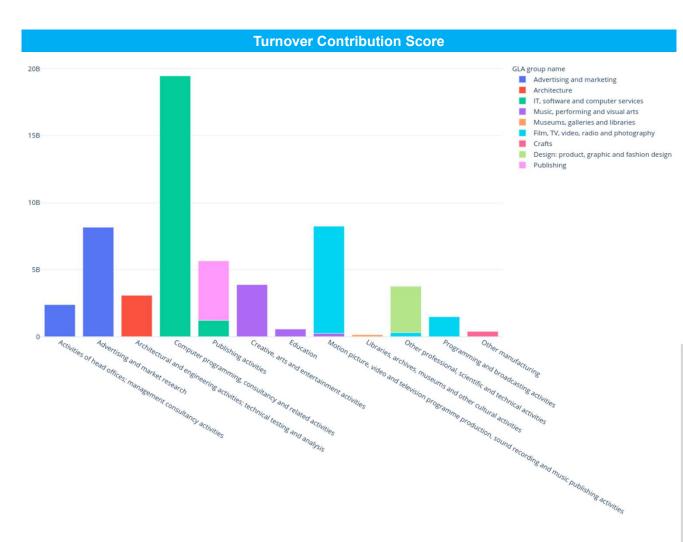


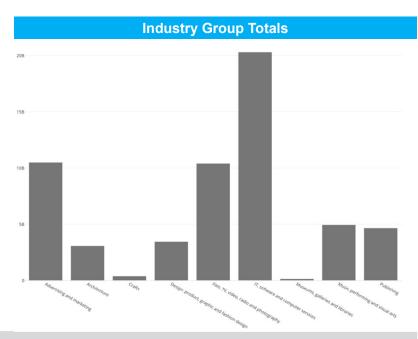
## Non-central London CCI SMEs



Shown here is the distribution of CCI SMEs in the sample across boroughs excluding Central London boroughs.

# Contribution to tumover (pre-COVID-19)

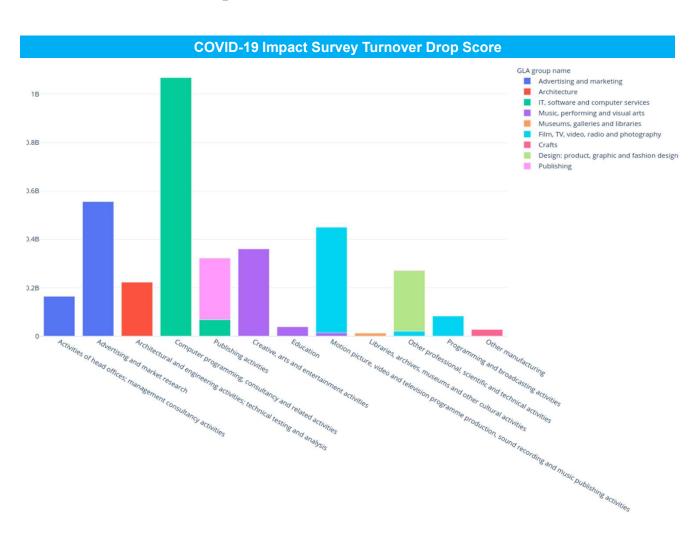


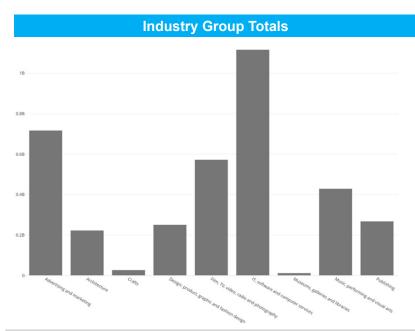


The estimated turnover contribution for the SME sample, adjusted for reporting rates, restricted to CCI SMEs is displayed here, broken down by SIC division and GLA-provided industry group.

Fewer than 5% of the SMEs in the crafts industry group reported turnover figures. The small sample sizes when breaking down to finer-grained classifications should be considered here.

# **Tumover impact**





We use the BICS Covid-19 Impact Survey to estimate Q2 turnover drop by combining turnover data for individual companies to provide a weighting, adjusting for different reporting rates. The scale should be interpreted as a relative score, due to the use of sampled data.

### **Indicators of risk**

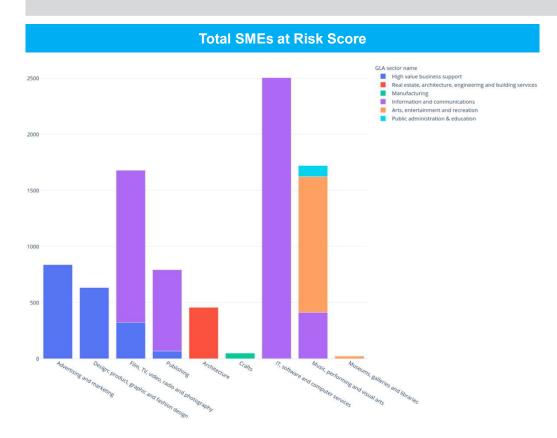


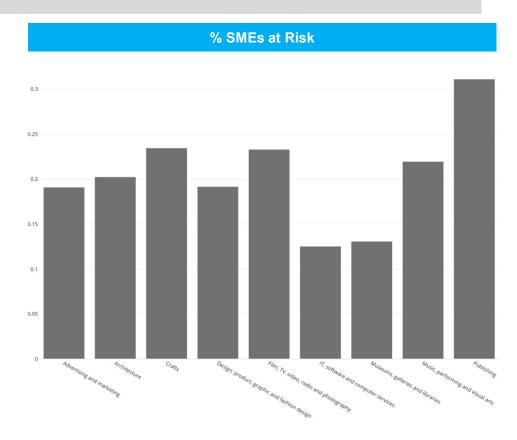
Across the CCI classification we see that museums, galleries and libraries operate at the highest liquidity ratios and the lowest debt-to-assets ratios and credit risk.

Publishing SMEs in the sample operate at the highest debt-to-assets ratio and, along with film, TV, radio and photography, operates with an average liquidity ratio below 1.

### **SME** at risk

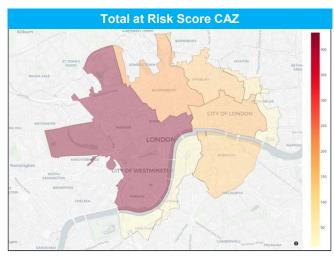
We display here graphs showing CCI SMEs at risk under the scenario we applied, where companies are considered at risk based on a combination of low liquidity and high leverage for their sector alongside credit risk (see high-level report for details on this scenario). We note that the previously observed higher debt-to-assets ratios, lower liquidity and higher credit risk of publishing SMEs manifests here as a high percentage at risk (over 30%). For the whole CCI cross-sector definition, the percentage at risk score is 17.7%.





### SMEs at risk

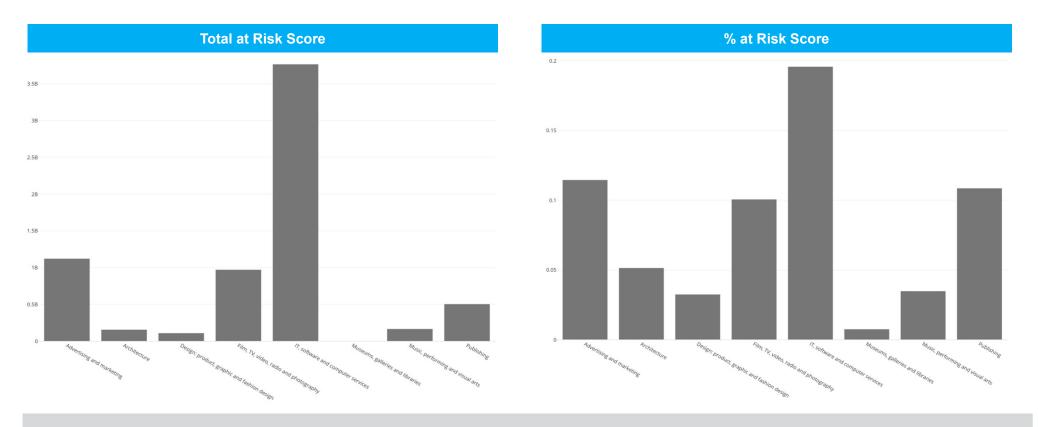
Under our risk scenario, we can examine where at-risk SMEs in the CCI cross-sector classification in the sample are registered. We see that the borough with the highest percentage at risk for CCI SMEs is Kensington and Chelsea, with one of the larger total at risk scores also. Total at risk scores for CCI SMEs in the Central Activities Zone (CAZ) are also shown here.





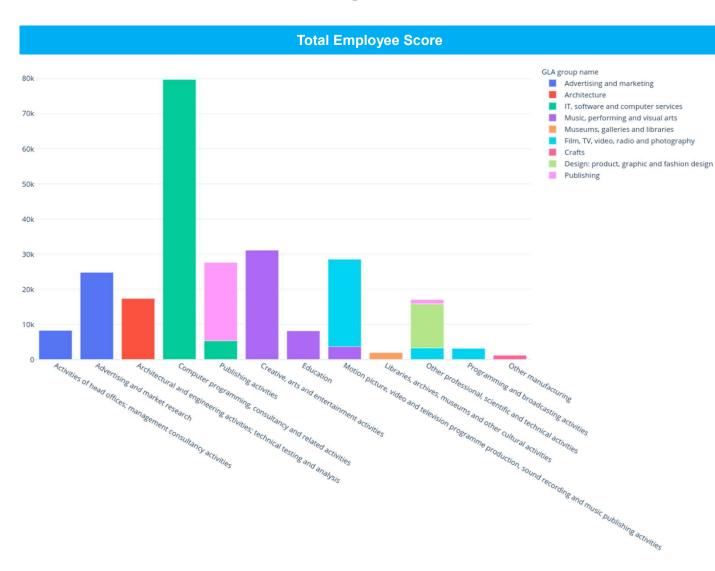


## Turnover at risk



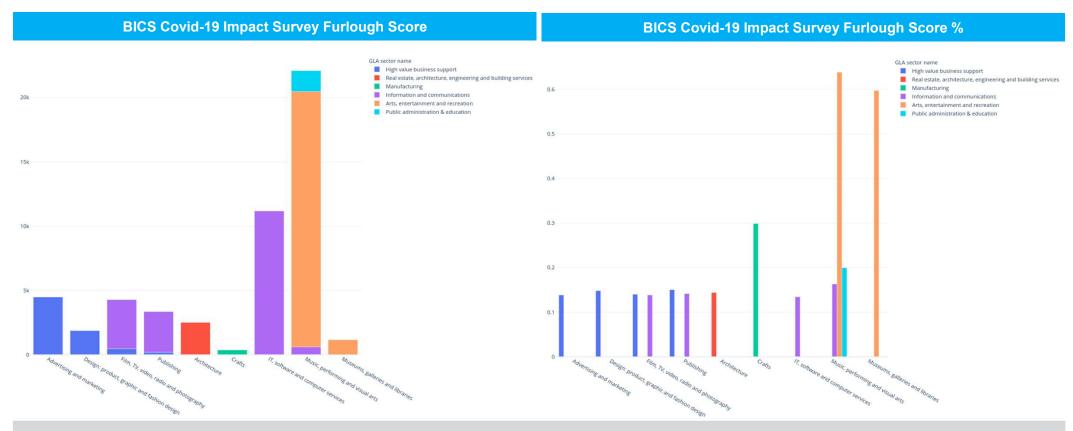
We display here graphs showing turnover at risk under the scenario we applied. Crafts has been removed due to low turnover reporting rate. For the whole CCI cross-sector definition, the percentage at risk score for turnover is 11.3%.

# Make-up of CCI employees



Estimated employee levels for the SMEs in the sample are shown here, broken down by SIC division and GLA-specific industry group.

# Furloughed employees



Estimated furlough levels across the CCI classification shows the highest furlough score for the arts, entertainment and recreation sector as might be expected. Although the largest group by number of employees is IT, software and computer services the furlough rate is generally much lower.

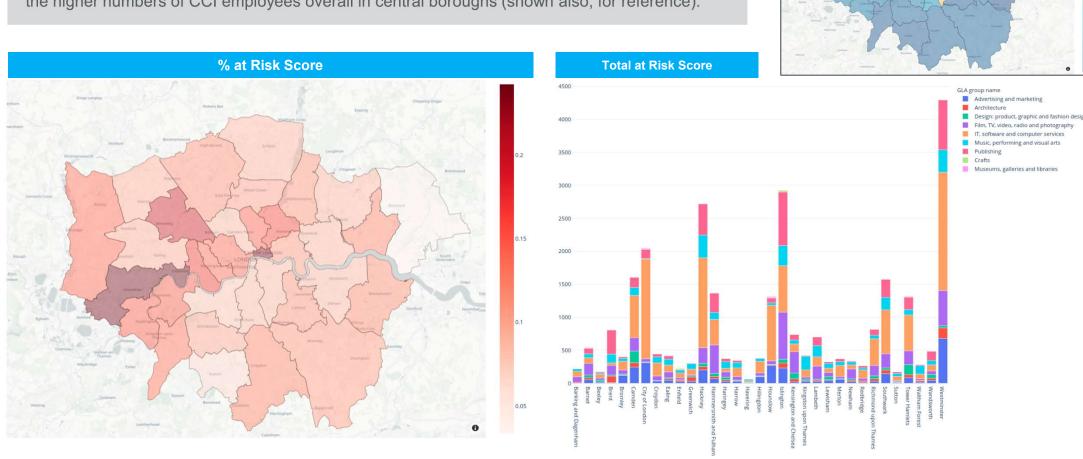
# **Employees at risk**



We display here graphs showing employees at risk under the scenario we applied. IT, software and computer services shows the largest employees at risk score, in part because it is the largest group by employee numbers, but it also has the third largest percentage at risk. Again, we see the highest percentage of employees at risk in publishing. For the whole CCI cross-sector definition, the percentage at risk score for employees is 13%.

# **Employees at risk**

Under the scenario we applied, one can examine where employment may be at risk in the CCI cross-sector classification. Central boroughs have higher total at risk scores, but this is reflective of the higher numbers of CCI employees overall in central boroughs (shown also, for reference).



**CCI Employees by LAD** 

# Deep Dive 4: Geographic Deep Dive into Newham



#### Introduction

#### Newham's SMEs:

- By sector
- By location
- By employment
- By movement
- By risk
- By high streets and town centers
- By opportunity areas

### Introduction

Newham ranked very high on the employment and risk impact on populations due to COVID-19 indicators. In order to take a closer look and test additional assumptions and questions, as well as the ability of our platform to derive meaningful, granular, and actionable insights at the most localized level possible.

Newham sample profile includes:

- 13,000 SMEs
- 50,000 employees
- 19 high street codes
- 3 Opportunity Areas
- Population 336,254
- 3rd highest percentage of "employees at risk"
- 2nd most deprived borough by IMD ranking

The following presents findings through a deep examination of Newham's SME revenue, employment, risk, across industry categories, and drills down to the street and store level to identify streets and even specific businesses that are experiencing economic challenges.

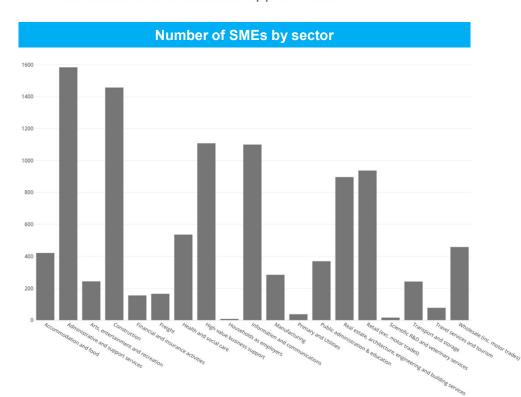
Similar exercises for every GLA borough are recommended at later stages of this engagement.



## Newham's SMEs by GLA sector and group

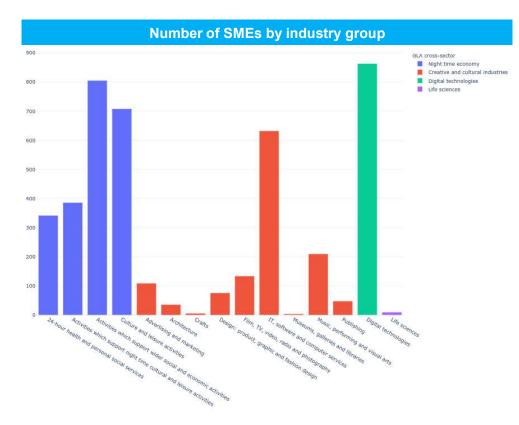
#### By GLA Sector Breakdown

- Admin Support: approx.1550
- Construction: approx. 1450
- High value business support: approx. 1100
- Information and Comms: approx. 1100



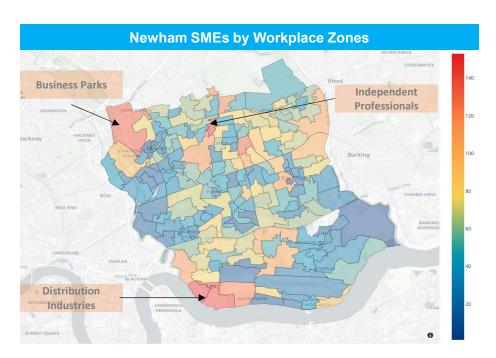
#### By GLA Industry Group Breakdown

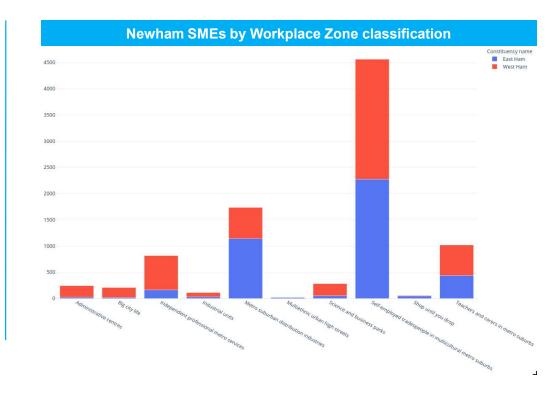
- Digital Technologies: approx. 860
- Social and Economic Support: approx. 800
- Culture and Leisure: approx. 710
- IT, Software, Computer Science: approx. 630



## Newham's SME's by location

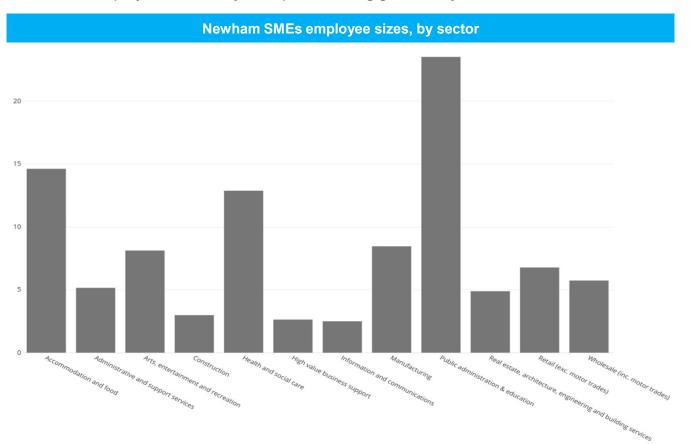
- When filtering companies whose registered address is at an accountant, or company registration services, the sample SME population of Newham drop from over 13,000 to 9,056 SMEs.
- This highlights the difference when considering brick-and-mortar businesses versus registered offices. Sector counts in a geography do not necessarily indicate a high number of businesses on the street as this was derived through a sample.
- Once broken down to workplace zones, it is possible to identify the majority classification of businesses in each granular geography.





# Newham's SMEs by numbers of employees

- Average number of employees per SME in Newham is 5.5 employees per business.
- Community related SMEs seem to have more employees.
- SMEs in other sectors such as construction, retail, and business support have smaller average number of employees, and may be a part of the "gig economy".



#### Average employee numbers

29

Public Administration and Education

14
Accommodation and Food

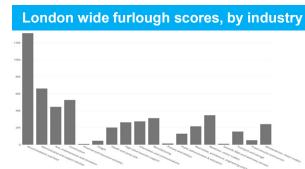
Health and Social Care

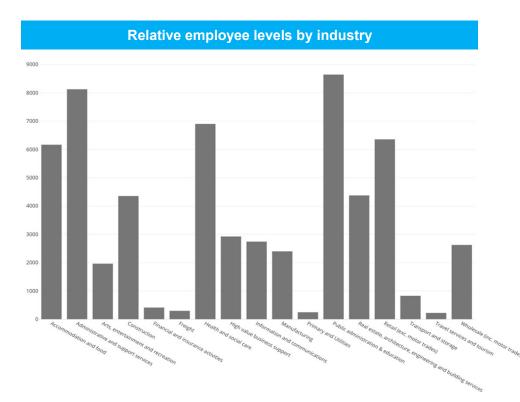
Arts, Entertainment and Recreation

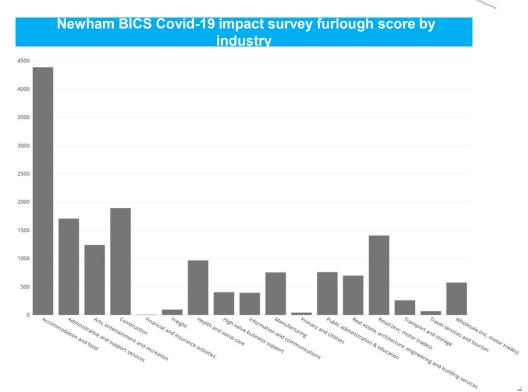
NOTE: Sectors with fewer than 50 SMEs reporting employee numbers have been omitted.

# Newham's current employment status

- These graphs show estimated number of employees in each GLA-defined sector in the sample of companies restricted to Newham and the estimated number of employees furloughed in the sample.
- The Accommodation and Food industries are currently experiencing high numbers of furloughed employees.







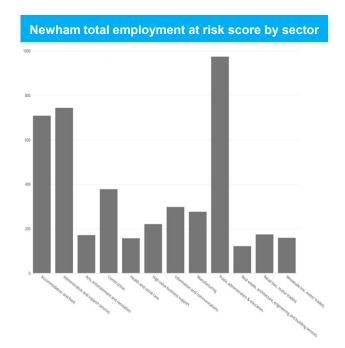
NOTE: The scale should be interpreted as relative to the sample. The London-wide furlough scores are shown for comparison.

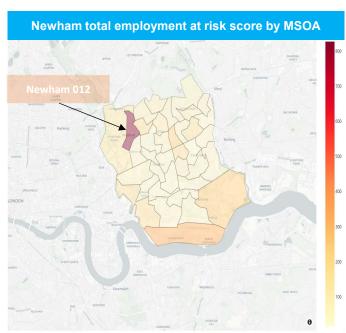
# Newham's indicators of risk and IMD ranking by MSOA

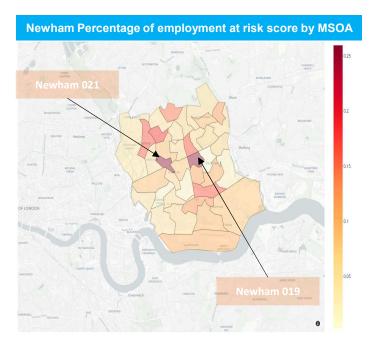


# Which industries and areas in Newham are experiencing employment risks?

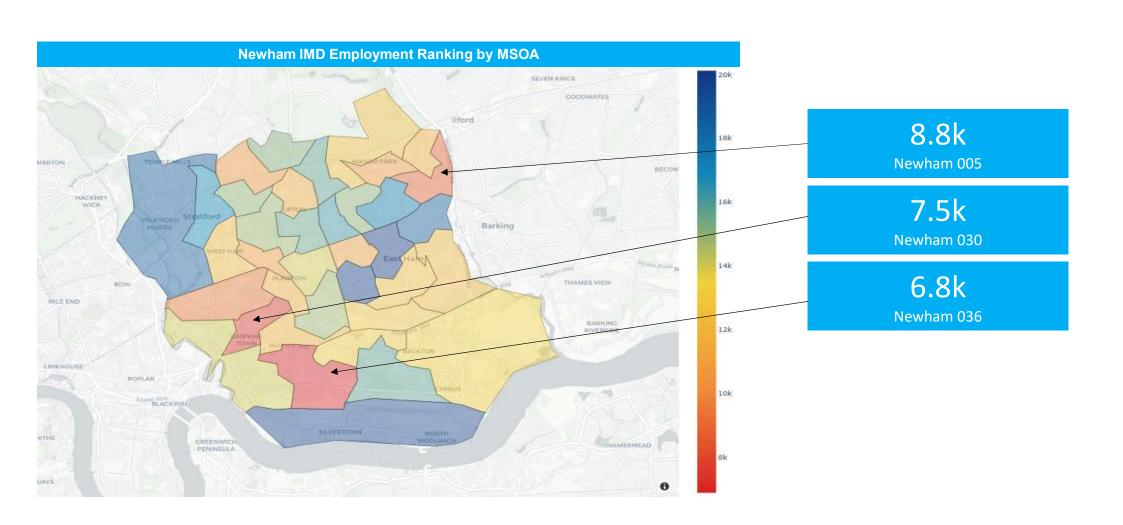
- Breaking down public administration & education by sub-category, this sector comprises mostly of education related activities, with 25% of the sampled companies in Newham considered at risk in this scenario.
- Several charity-related organisations employing a larger number of people are also at risk.
- The MSOA Newham 012 contains a high concentration of administrative and support service activities. Top keywords for companies in this area are "business support", "construction work", "real estate sales", "consulting", "construction", "stores" and "food".







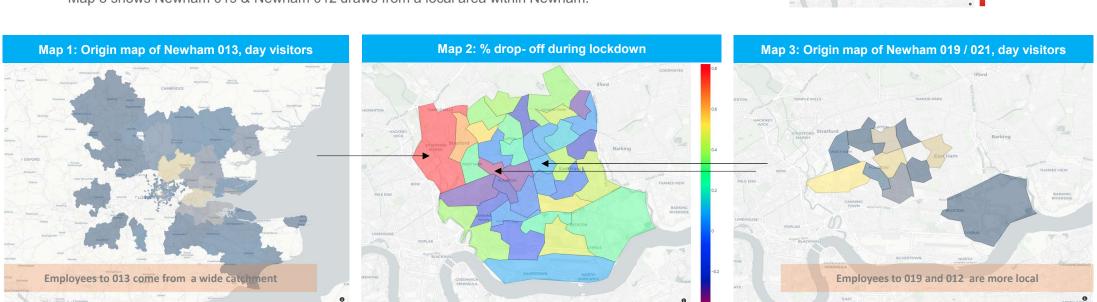
# Where are Newham's most vulnerable employees?



# Understanding where employees in Newham are coming from

Using mobility data it is possible to see the reduction in people travelling to spend the working day in Newham due to lockdown.

- Map 1 shows Newham 013 draws from a large area, including the wider commuter belt beyond London
- Map 2 shows where visitors come from into Newham.
- Map 3 shows Newham 019 & Newham 012 draws from a local area within Newham.

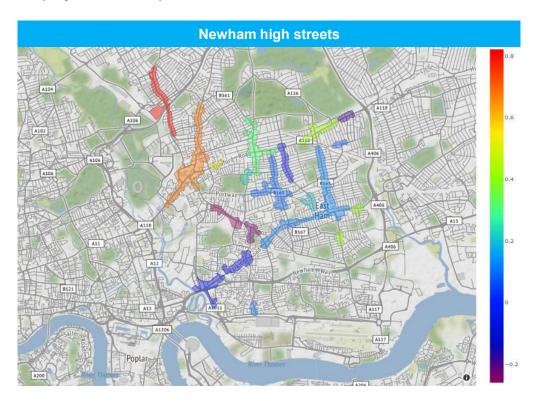


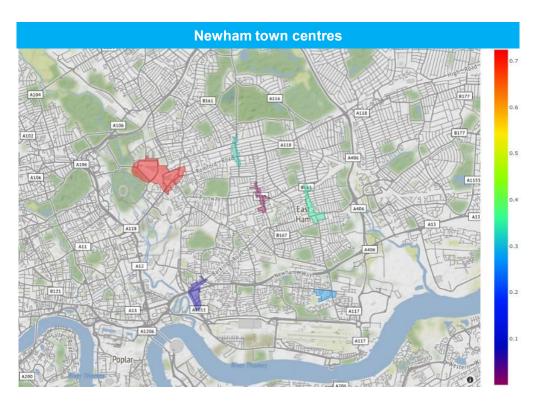
**IMD Employment Ranking** 

Maps indicate density of visitors with lighter shades representing high values

# Which Newham High Streets and Town Centres lost the most visitation traffic?

These maps show the percentage drop due to lockdown in people travelling to spend the working day in the major high streets and town centres in Newham. The largest drop around High Road, Leytonstone and Stratford, which may reflect the business sectors and employment areas present in these locations.





# How far are people travelling to different high streets and town centres today?

- The chart displayed here shows various high streets in Newham (high street definitions provided by the GLA) with a percentage breakdown by distance travelled (less than 1 km, 1–2 km and more than 2 km) people spending the working day in each high street.
- High Road, Leytonstone and Mile End Road, Bow Road draw a high proportion of visitors from further afield, suggesting that they contain large retail centers or specialty stores.

