

Report
October 2022

Oxford Traffic Filters Business Impacts

Oxfordshire County Council
Our ref: 24194201
Client ref:



steer

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Prepared by:

Steer
14-21 Rushworth Street
London SE1 0RB

+44 20 7910 5000
www.steergroup.com

Prepared for:

Oxfordshire County Council
County Hall
New Road
Oxford
OX1 1ND
Client ref:
Our ref: 24194201

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1 Introduction

Overview of the traffic filters

- 1.1 This report relates to the potential business impacts of Oxfordshire County Council's proposal to implement traffic filters in Oxford. It provides a qualitative assessment of potential impacts of the traffic filters for different types of business across the city. The assessment is based on the definition of the traffic filters as set out in the pre-ETRO consultation in September 2022 which is set out below.

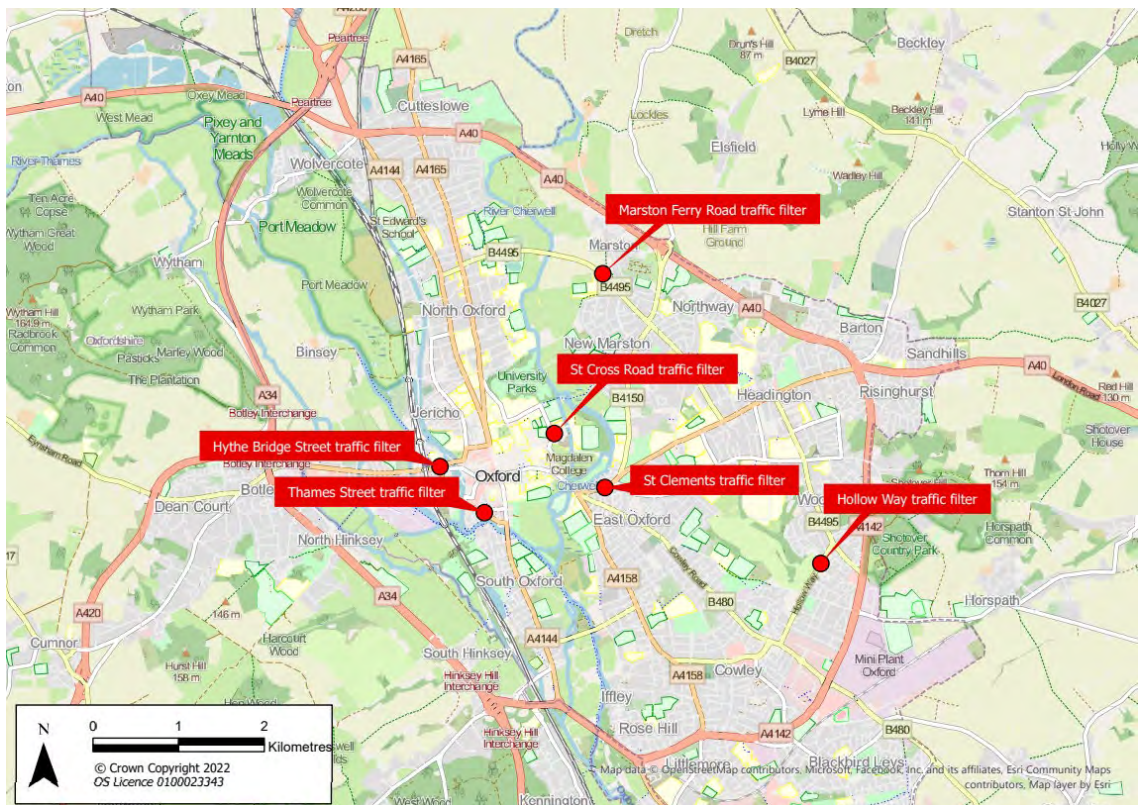
Structure of this report

- 1.2 Following this introduction:
- Section 2 provides the scheme definition that formed the basis of the assessment
 - Section 3 describes the method used
 - Section 4 contains a profile of businesses in Oxford
 - Section 5 provides the assessment. A table summarising the assessment is shown at the end of this section.

2 Traffic filters scheme definition, September 2022

- 2.1 Traffic filters are designed to reduce traffic, make bus journeys faster, and make walking and cycling more convenient and safer. When they are operating, private cars will not be allowed through certain sections of roads without a permit. All other vehicles including buses, taxis, motorbikes, vans, mopeds and HGVs will be allowed at all times. Traffic signs identify the location of each traffic filter, including operational hours and vehicles that are exempt to travel through.
- 2.2 Automatic number plate recognition (ANPR) cameras will be installed to monitor vehicles going through the traffic filters. Traffic signs will identify the location of each traffic filter, including operational hours and vehicles that are exempt to travel through. Any driver of a vehicle that goes through the traffic filter and is not exempt or using a permit, will be charged a penalty (currently £70). The traffic filters will operate 7 days a week from 7am to 7pm, apart from traffic filters on Marston Ferry Road and Hollow Way which will not operate on Sundays.
- 2.3 The proposals include six traffic filters. Three of these will be located in the city centre on St Cross Road, Thames Street and Hythe Bridge Street. The remaining three filters will be located on: St Clements, Marston Ferry Road and Hollow Way.
- 2.4 The proposed filter locations are shown in Figure 2.1.

Figure 2.1: Proposed traffic filter locations



Exemptions

For the trial, it is currently proposed the following vehicles will be exempt from the traffic filters. This means they can travel freely, at all times and without applying for a permit. The exemptions that specifically mitigate impacts on businesses are underlined.

- Buses
- Coaches
- Taxis
- Private hire vehicles
- Mopeds
- Motorbikes
- Vans (excluding people carriers)
- Heavy goods vehicles (HGVs)
- Special vehicles such as emergency services

Permits

2.5 Permits for private cars will be available for the following groups. Permits that specifically mitigate impacts on businesses are underlined.

- Blue badge holders
- Professional health or care workers
- Non-professional carers (for operational journeys, not commuting)
- Cars used as goods vehicles by businesses based in the permit area

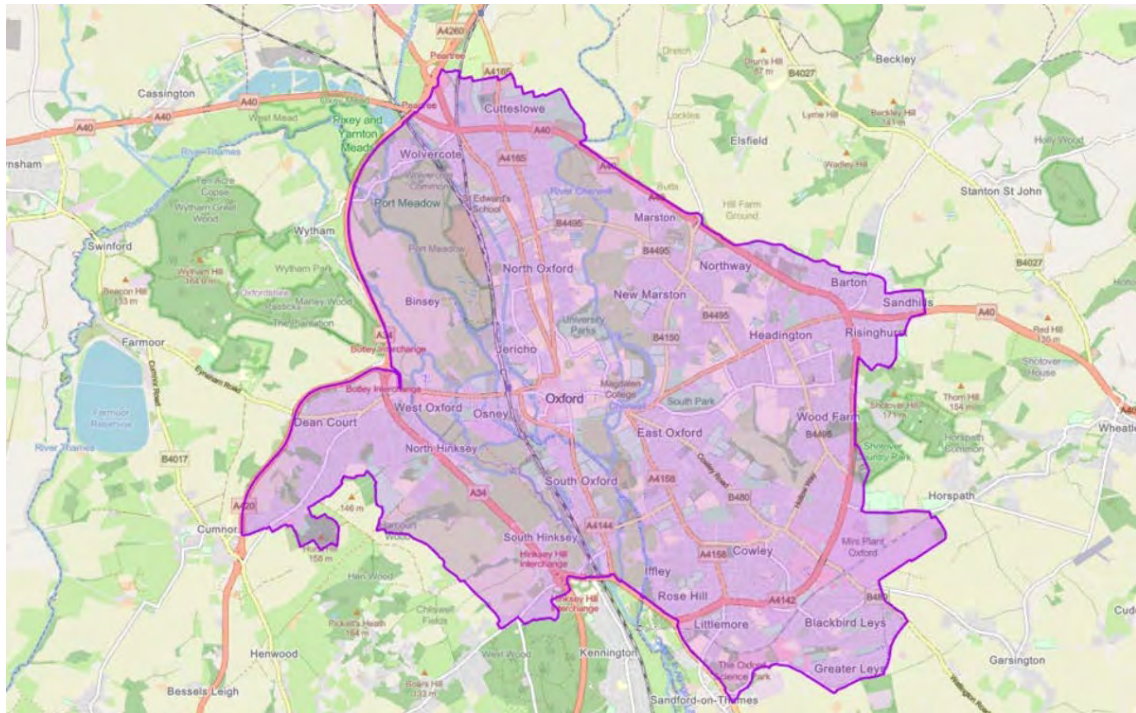
2.6 Residents living in the permit area which includes:

- Oxford City Council’s administrative area
- North Hinksey Parish
- South Hinksey Parish

- Cumnor Parish east of the A420
 - Botley
 - Dean Court
 - Cumnor Hill
 - Chawley
 - Parts of Cumnor

Residents in these areas will be able to apply for a permit to drive through the traffic filters for up to 100 days per year, with a maximum of three permits per household and one permit per person. The proposed permit area is shown in Figure 2.2.

Figure 2.2: Proposed permit area



3 Method

Businesses assessed

3.1 This report provides a qualitative assessment of potential impacts of the traffic filters for the following types of business:

- Directly affected businesses (transport and distribution):
 - Taxi/private hire operators
 - Businesses with fleets of vehicles - a group of vehicles owned or leased by a business that are used for business operations
 - Bus operators (public buses)
 - Bus operators (private buses/coaches)
 - HGV operators
- General businesses operating in Oxford, with consideration of businesses in the following types of location:
 - City centre
 - District centres
 - Other locations not within the city centre or district centres
 - Outside Oxford
- Consumer services businesses operating in Oxford with consideration of businesses in the following types of location:
 - City centre
 - District centres
 - Other locations not within the city centre or district centres
 - Outside Oxford
- Public sector organisations:
 - Schools
 - Hospitals
 - Universities

The assessment of impacts takes into account the proposed exemptions as listed in the introduction.

Types of business impact assessed

3.2 The types of business impacts assessed were:

- **Travel Time:** Change in travel time e.g. from reduced/ increased congestion and / or re-routing as result of traffic filters.
- **Direct Costs:** Direct monetary costs borne (or potentially borne) by businesses.
- **Effect on Business Operations:** All businesses rely on deliveries and servicing. Changes in travel time for deliveries and servicing has a potential knock-on effect on the cost of deliveries – and hence overall cost of business operations.

- **Effect on Business Demand / Market:** Consumer-focused businesses (retail, entertainment, local services) rely on customer demand. Where traffic filters could result in a change in the number of visitors to an area, this could affect the catchment of and demand for a business’s services.
- **Effect on Labour Market - Recruitment & retention:** Changes to the cost and convenience of travel to work may affect the ability of businesses to recruit and retain staff.

Analytical process

- 3.3 The steps outlined in the box below were undertaken to assess the potential disproportionate impacts on each type of business, for the traffic filters scheme. “Disproportionate impact” means that certain types of business will be significantly more affected by the change than other businesses. The aim of this report is to identify those businesses that are disproportionately impacted.
- 3.4 The assessment in this report was partly informed by feedback from discussions with the Oxford Business Action Group (OBAG) in meetings held on 4th May 2022 and 13 July 2022 which were attended by OCC representatives. Oxfordshire County Council has also engaged with employers and the business community and the feedback has been used to inform the assessment in this report.

<i>Analytical steps</i>
<i>Step 1. Scoping</i>
<ul style="list-style-type: none"> • Identifies whether traffic filters have an impact (negative or positive) • Specific focus on adverse impacts to a particular sector/group • Identifies potential disproportionate impacts within that group
<i>Step 2. Evidence base</i>
<ul style="list-style-type: none"> • Desktop research/business profiling • Business surveys • Stakeholder engagement
<i>Step 3. Assessment of disproportionate impacts</i>
<ul style="list-style-type: none"> • Multi-faceted approach considering impacts on businesses at the following levels • The overall scheme principles and objectives • The Traffic Filters scheme elements

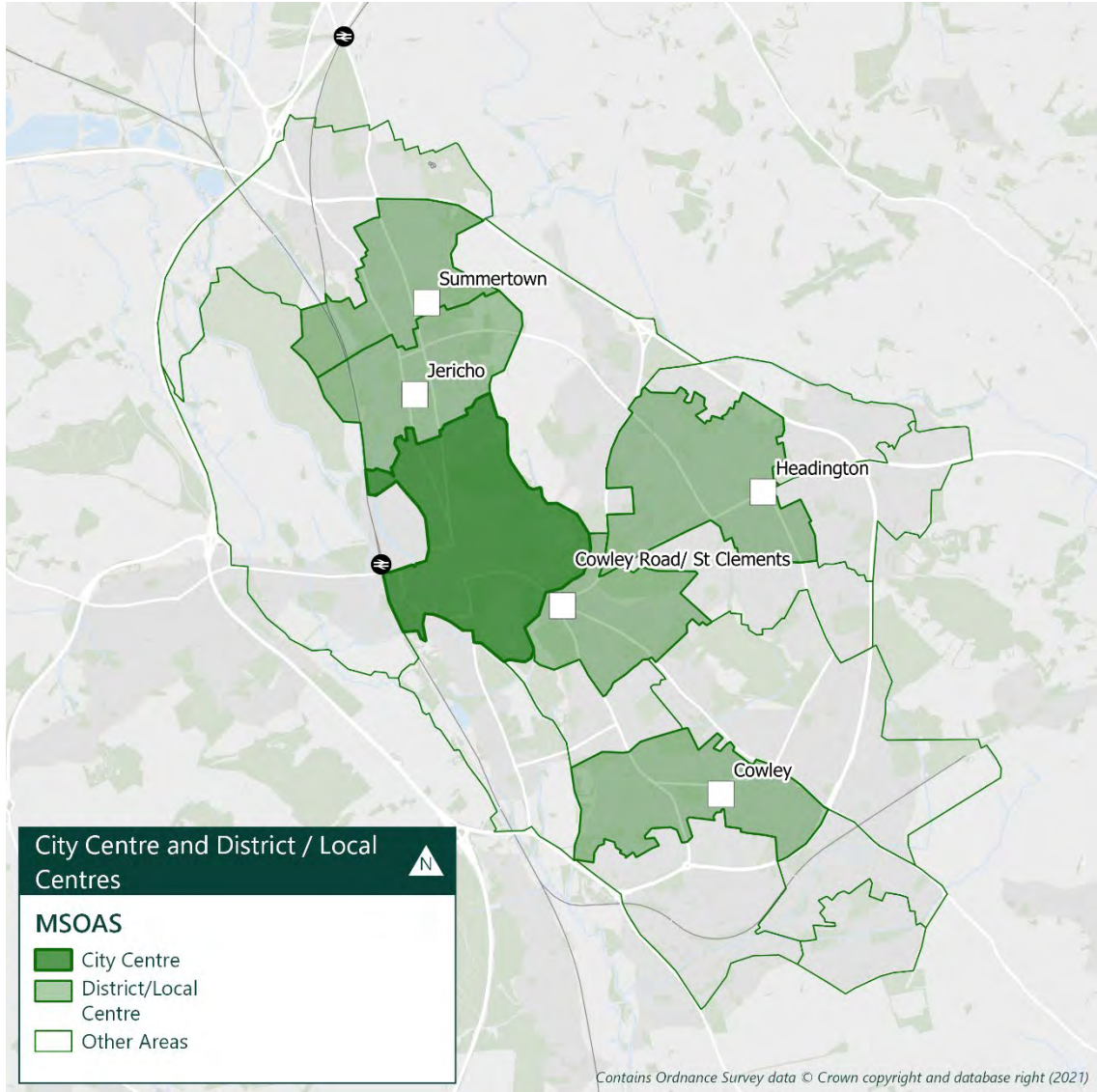
Definition of city centre and district centres

- 3.5 As the baseline data obtained from the Office for National Statistics (outlined in the next section) is provided at MSA¹ level, the city centre was defined as the MSA in which the city centre is located and district centres were defined as the MSAs that included a district centre as defined in the 2036 Local Plan. District centres are defined in the 2036 Local Plan as comprising groups of shops often containing at least one supermarket or superstore, and a range of non-retail services, such as banks, building societies and restaurants, as well as local public facilities such as a library. Those centres are: Jericho, Headington, Cowley Road/St Clements, Summertown, Cowley/Templars Square.

¹ MSA - Middle Layer Super Output Areas - are a geographic hierarchy for reporting of small area statistics from the Census. MSAs a population of between 5,000 to 15,000.

3.6 The map in Figure 3.1 below shows the MSOAs in Oxford and highlights the city centre and MSOAs that include a district centre. The 'City centre' is within the MSOA Oxford 008 so this was used as the area of best fit. 'District centres'² are represented within MSOAs Oxford 003, 006, 011, 015 and 018.

Figure 3.1: Map of city centre, district centres and other areas, by MSOA



² 'District centres' and 'district centres' are used interchangeably.

4 Baseline data

- 4.1 For this assessment, information about the profile of size and sectors of businesses in Oxford was obtained from a range of sources. The primary source used was the 'Business Register and Employment Survey' from the Office for National Statistics (ONS). The employment information comes from a survey that is conducted on businesses across the whole of the UK economy for each site that they operate. The sample size is approximately 85,000 businesses and employee and employment estimates are produced by geography and industry. This dataset is updated annually.
- 4.2 Data was downloaded from May 2022. Any data from the ONS had been rounded to avoid disclosure; however, the level of rounding varies, and figures could also be rounded down to zero. This means that the resultant figures may not be exact.
- 4.3 The dataset classifies businesses as micro-, small-, medium- or large-sized, these relate to the number of employees these companies have, as follows:
- Micro (0-9 employees)
 - Small (10 to 49 employees)
 - Medium-sized (50 to 249 employees)
 - Large (250 plus employees)
- 4.4 This section presents, for each of the types of business being assessed (as set out in the previous section), an estimate of the number of businesses, size profile in terms of number of employees, industry profile, and spatial distribution (where available).

Directly affected businesses (transport and distribution)

Taxi operators / Private hire vehicles

- 4.5 In Oxford, there are currently 664 registered licensed vehicles, of which 111 are Hackney Carriage vehicles and the remaining 553 are private hire vehicles.³ There are 105 wheelchair accessible Hackney Carriage vehicles and 6 wheelchair accessible private hire vehicles.⁴
- 4.6 There are 27 private hire operators approved by Oxford City Council.⁵
- 4.7 Spatial distribution of taxi / private hire vehicle operators is not available.

³ [Register of current Hackney Carriage and Private Hire Driver and Vehicle licences | Register of current Hackney Carriage and Private Hire Driver and Vehicle licences | Oxford City Council](#)

⁴ [LIST OF WHEELCHAIR ACCESSIBLE VEHICLES JULY 19.pdf](#)

⁵ [Private hire operators list | Taxi licensing - Information to help the Public | Oxford City Council](#)

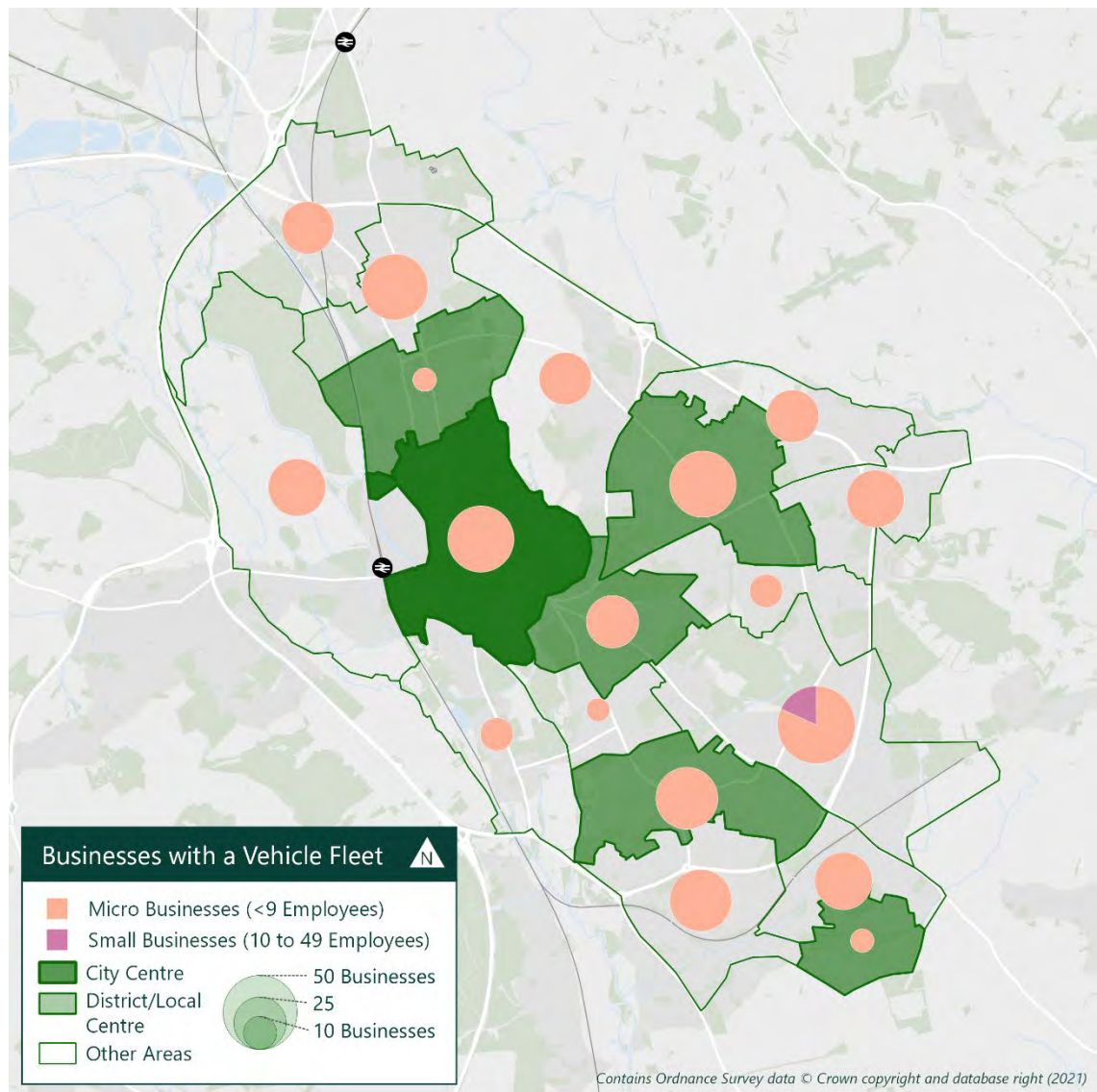
Businesses with fleets of vehicles

- 4.8 Professional judgement has been used to identify which businesses are most likely to require a fleet of vehicles. The types of businesses identified as most likely to have fleets of vehicles were as follows:
- Repair and installation of machinery and equipment
 - Electricity, gas, steam and air conditioning supply
 - Construction of buildings
 - Specialised construction
 - Land transport and transport via pipelines
 - Water transport
 - Postal and courier
 - Crop and animal production, hunting and related activities
 - Forestry and logging
- 4.9 Vehicle fleets in some sectors include zero emission vehicles and bicycles/cargo bikes, particularly within the postal and courier sectors.
- 4.10 Business number data⁶ has been analysed at a 2-digit Standard Industrial Classification (SIC)⁷ level. From our analysis of UK Business Counts there are 480 businesses operating in the industries listed above in Oxford. Most are within the construction sector - 41% of the 480 businesses are within the specialised construction industry and 31% are within the construction of buildings industry.
- 4.11 As shown in Figure 4.1, most of the businesses identified as likely to have a vehicle fleet are micro-sized (0-9 employees).

⁶ Data has been obtained from 'UK Business Counts – enterprises by industry and employment size band' from the Office for National Statistics.

⁷ 2-digit SIC is used to classify businesses by the type of economic activity they are engaged in. At this level, the data has been broken down into divisions. More information can be found here: [uksic2007webamend8531.pdf](#).

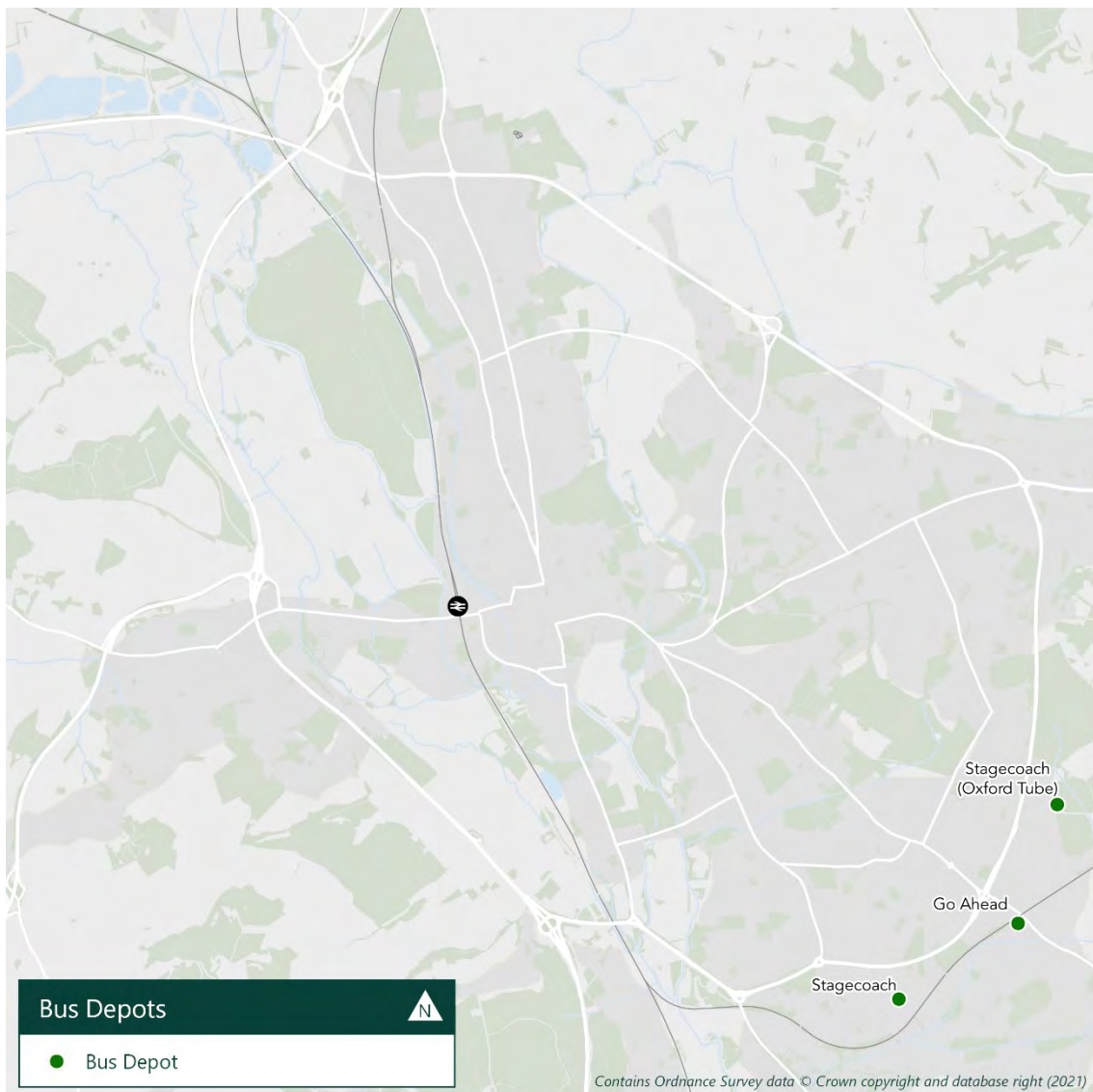
Figure 4.1: Businesses with fleets of vehicles



Bus operators (public and private)

4.12 As shown in Figure 4.2, there are three bus depots in Oxford, both outside of the city ring road to the south east of Oxford. There are a further 16 depots in the wider area of Oxfordshire and beyond.

Figure 4.2: Map of bus depot locations in Oxford



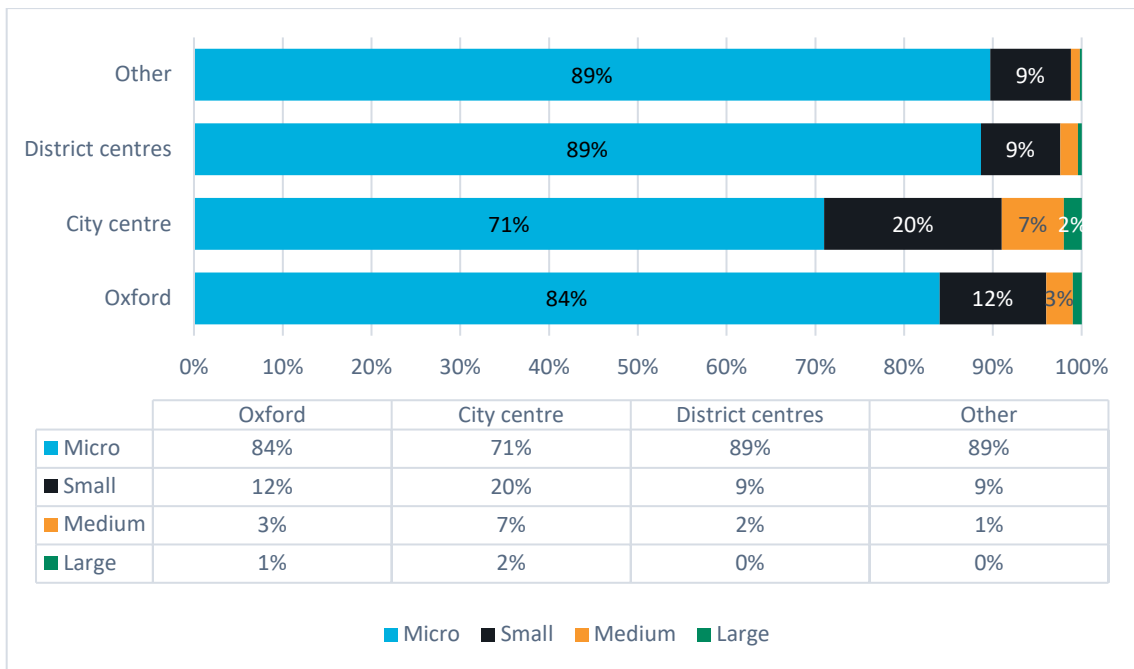
HGV operators

- 4.13 Oxford-specific data on the number of HGV operators/HGV vehicles is not available. Annual population survey estimates show that there were around 278,700 HGV drivers employed across all sectors in the UK in 2020 (around one in every 250 people is employed as an HGV driver). Applying that ratio to Oxford gives an estimate of around 600 HGV drivers in Oxford.

Businesses operating in Oxford (general)

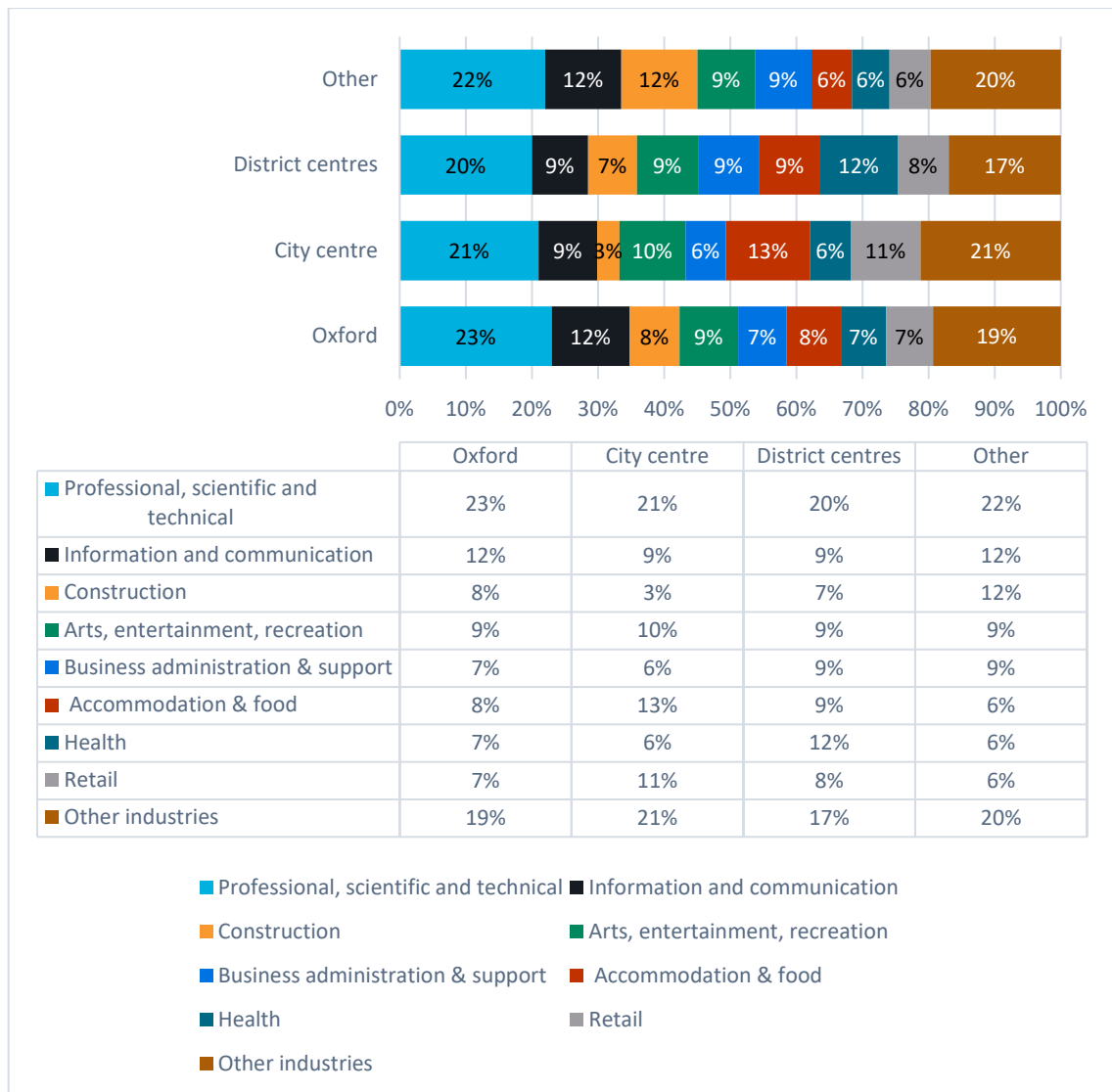
- 4.14 General businesses are all types of businesses in Oxford (including consumer services). Data on the size and sectors of businesses was obtained from 'UK Business Counts - enterprises by industry and employment' from the ONS, at a 2-digit SIC level.
- 4.15 As shown in Figure 4.3, the majority of businesses in Oxford (84%) are "micro" businesses that employ 9 staff or fewer with a greater proportion of small (10-49 staff) and medium (50-249 staff) sized businesses in the city centre.

Figure 4.3: Size breakdown of general businesses in Oxford, 2021



4.16 The professional, scientific and technical sector is the largest single business sector in Oxford, accounting for 23% of business overall. The construction industry is more likely to be located outside of the city centre and district centres as shown in Figure 4.4.

Figure 4.4: Industry breakdown of general businesses in Oxford, 2021

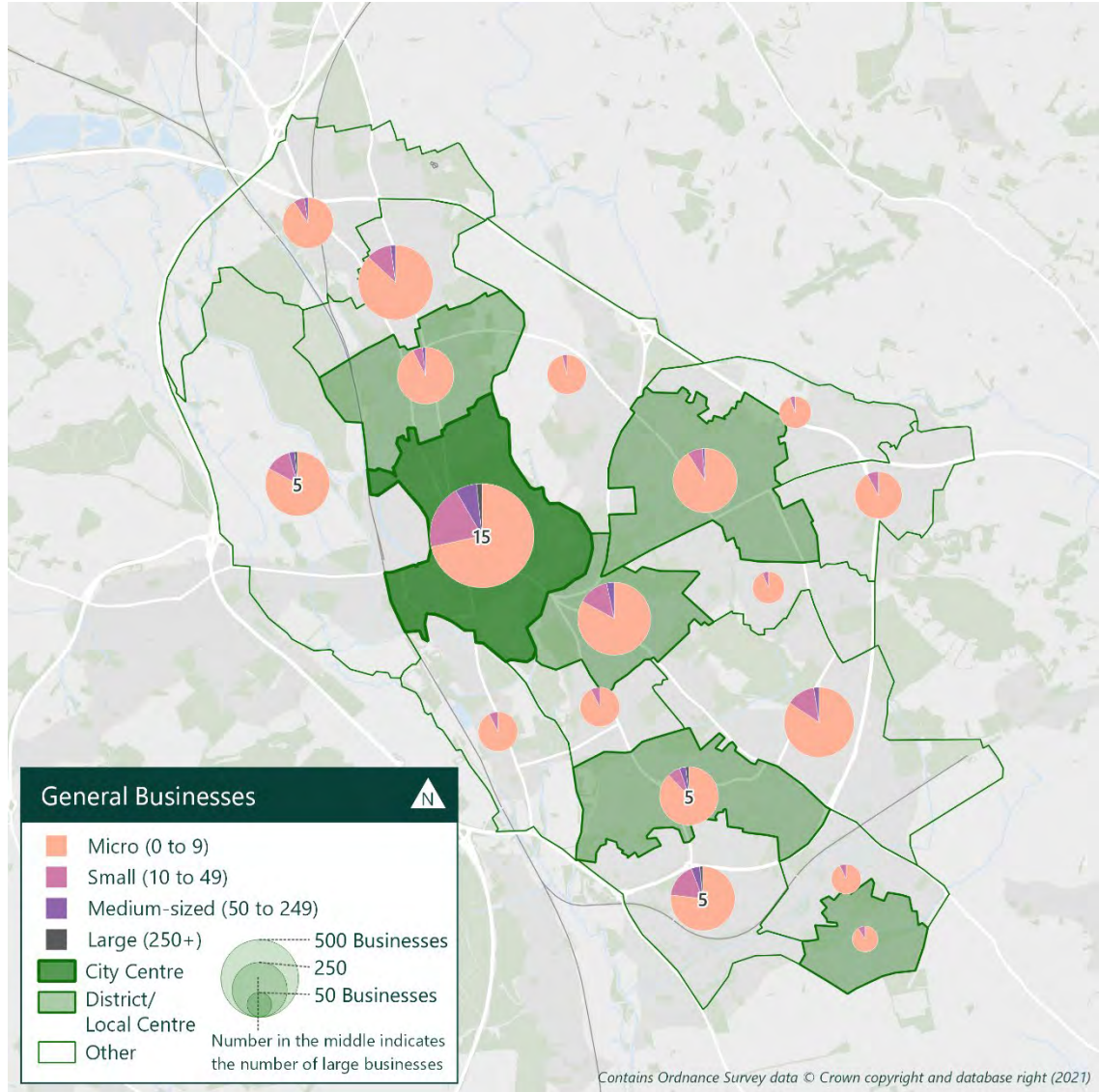


4.17 The distribution of general businesses by size in Oxford is shown in Figure 4.5 with the breakdown by industry sector in Figure 4.6.

- There are 900 businesses in the **city centre**, almost a fifth of all businesses in Oxford. The location of University of Oxford and other educational institutions influences the composition of business types in the city centre. A fifth of general businesses in the city centre are small-sized (10-49 staff) and approximately half of these businesses are in the Education sector. Likewise, half of all medium-sized businesses in the city centre are within the Education sector, and the proportion of large enterprises in the city centre is solely due to this sector. There is also a notable proportion of accommodation and food service businesses in the city centre.
- Most businesses in **district centres** are micro-sized. A substantial number of small-sized businesses are in the food and beverage sector. Nearly 40% of businesses in North Central Oxford are in the professional, scientific and technical sector, which is a significantly higher proportion than other district centres.
- On average, 22% of businesses within the ‘**Other**’ category are professional, scientific and technical sector. This could be due to the nature of businesses that reside in the Oxford

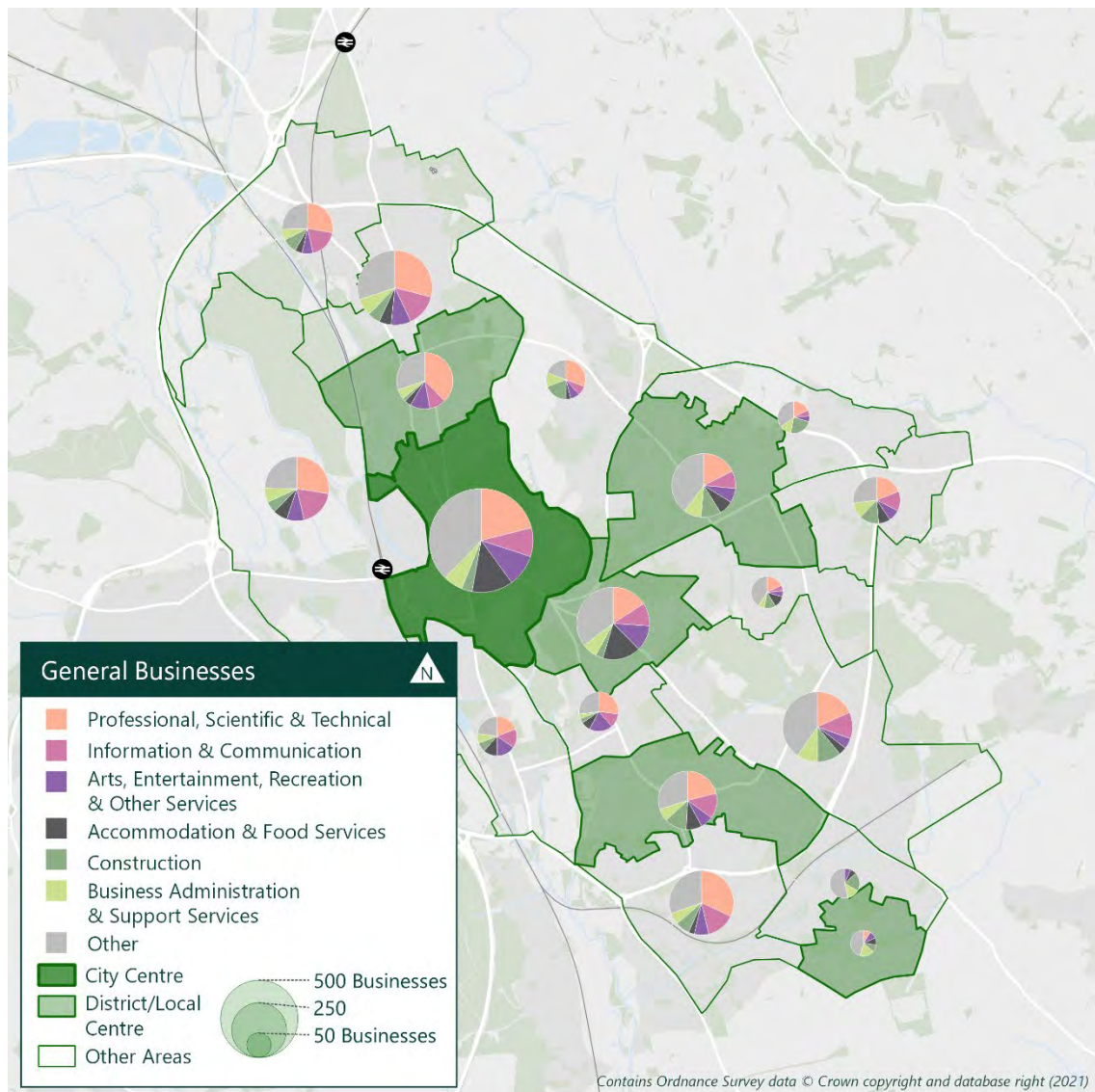
Business Park. Also, there are for instance clusters of real estate agencies and accounting firms. There are also clusters of businesses in the arts, entertainment and recreation sector, due to prevalence of outdoor recreational grounds, sports facilities and performing arts theatres in these areas.

Figure 4.5: Map of general businesses by size in Oxford, 2021



Source: Steer

Figure 4.6: Map of general businesses by industry in Oxford, 2021



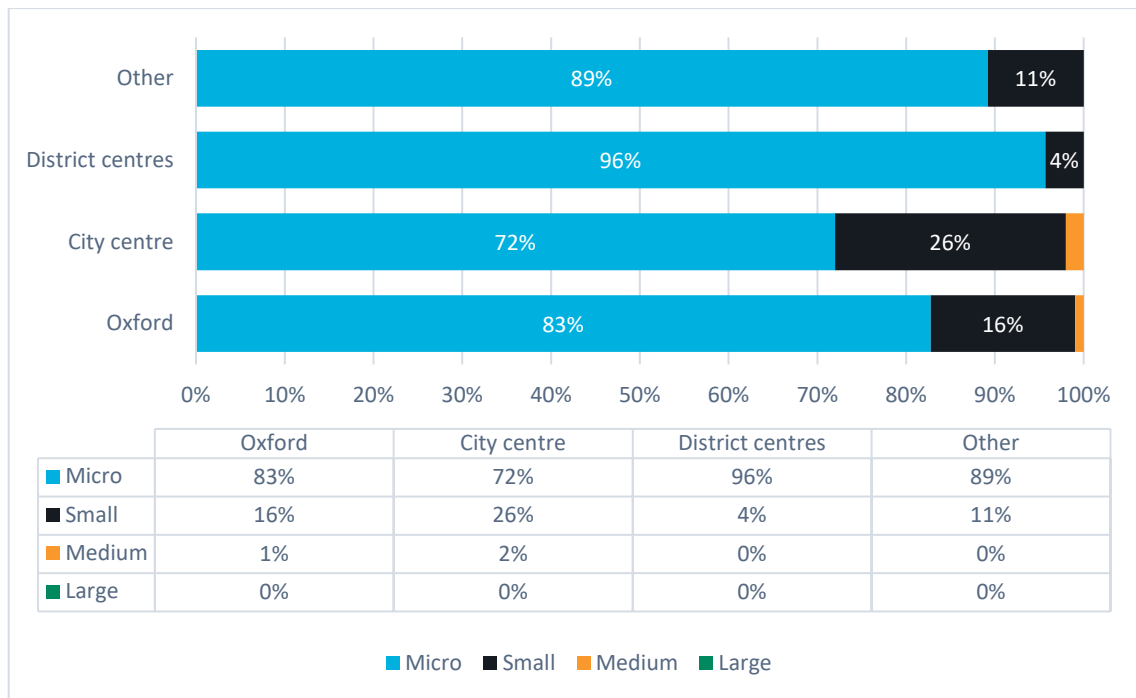
Consumer services businesses

4.18 Consumer services businesses have been defined using 2-digit industry sectors from UK Business Counts - enterprises by industry and employment' from the ONS. Consumer services businesses were assumed to be those within the following sectors:

- Wholesale trade, except of motor vehicles and motorcycles
- Retail trade, except of motor vehicles and motorcycles
- Accommodation
- Food and beverage services
- Travel agency, tour operator and other reservation services
- Repair of computers and personal and household goods
- Other personal services

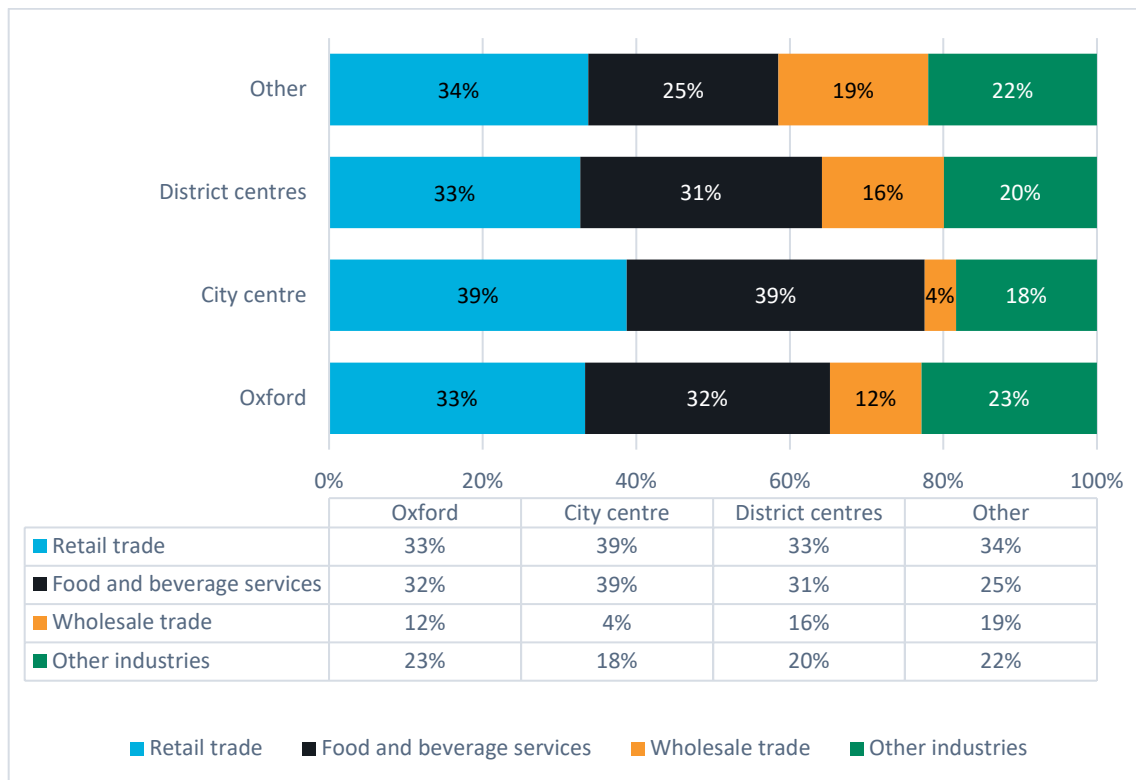
4.19 Consumer services businesses by size and location are shown in Figure 4.7. Almost all consumer services businesses are classed as micro (9 staff or fewer) or small (10-49 staff).

Figure 4.7: Size breakdown of consumer services businesses in Oxford, 2021



4.20 As shown in Figure 4.8, consumer services are predominantly in retail, food and beverage services and wholesale trade, albeit with a small proportion of wholesale trade in the city centre.

Figure 4.8: Industry breakdown of consumer services businesses in Oxford, 2021



Retail and wholesale trade categories exclude sales of motor vehicles, a separate category.

4.21 Consumer services businesses are concentrated in district centres and the city centre as shown in Figure 4.9, with the distribution by sector in Figure 4.10 illustrating the higher numbers of food and beverage and retail businesses in district centres and the city centre.

- There are 1,050 consumer services businesses in total in Oxford. 83% of these businesses are micro-sized. Out of these, over a third are retail and over a quarter are food and beverage services. Medium-sized consumer services businesses are within the wholesale trade and the food and beverage sector.
- In **Oxford city centre**, There are 250 consumer services businesses in the city centre, over a quarter of which are small-sized. There are a handful of medium-sized businesses. The city centre has a significantly larger proportion of businesses in retail trade and food and beverage services. Wholesale trade businesses are mainly found outside of the city centre.
- In **district centres**, on average, nearly all the consumer services businesses in district centres are micro-sized and, in some cases, all are. There are no medium- or large-sized business in the district centres, as can be seen in Figure 3.9. In East Central Oxford in particular, nearly half of all consumer service businesses are food and beverage. In both Barton and Marston, half of the consumer services businesses are in retail.
- As shown by the relative sizes of the pie-charts in Figure 4.10, there are on average fewer consumer services in 'other' locations than in district centres, as would be expected.

Figure 4.9: Map of consumer services businesses in Oxford by size, 2021

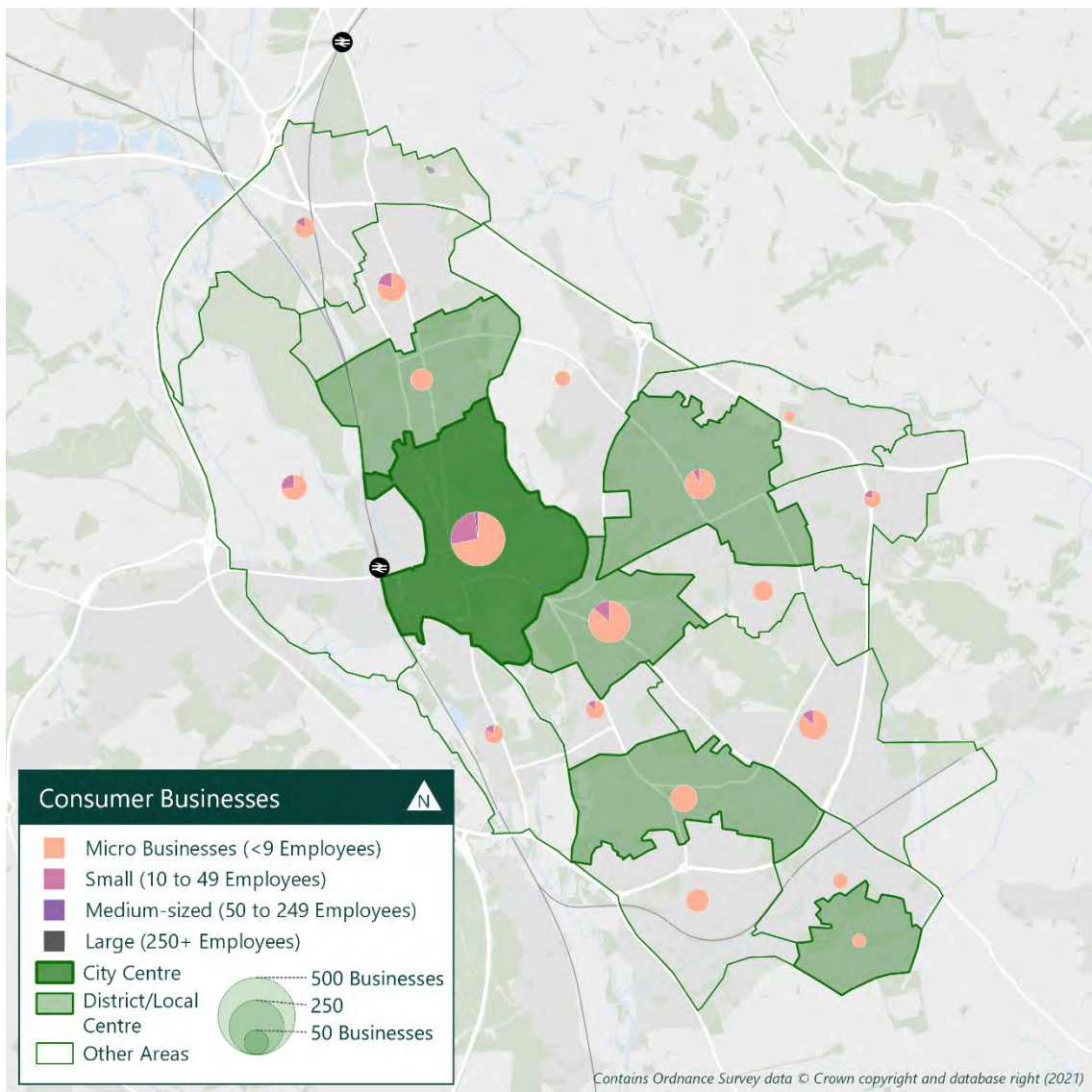
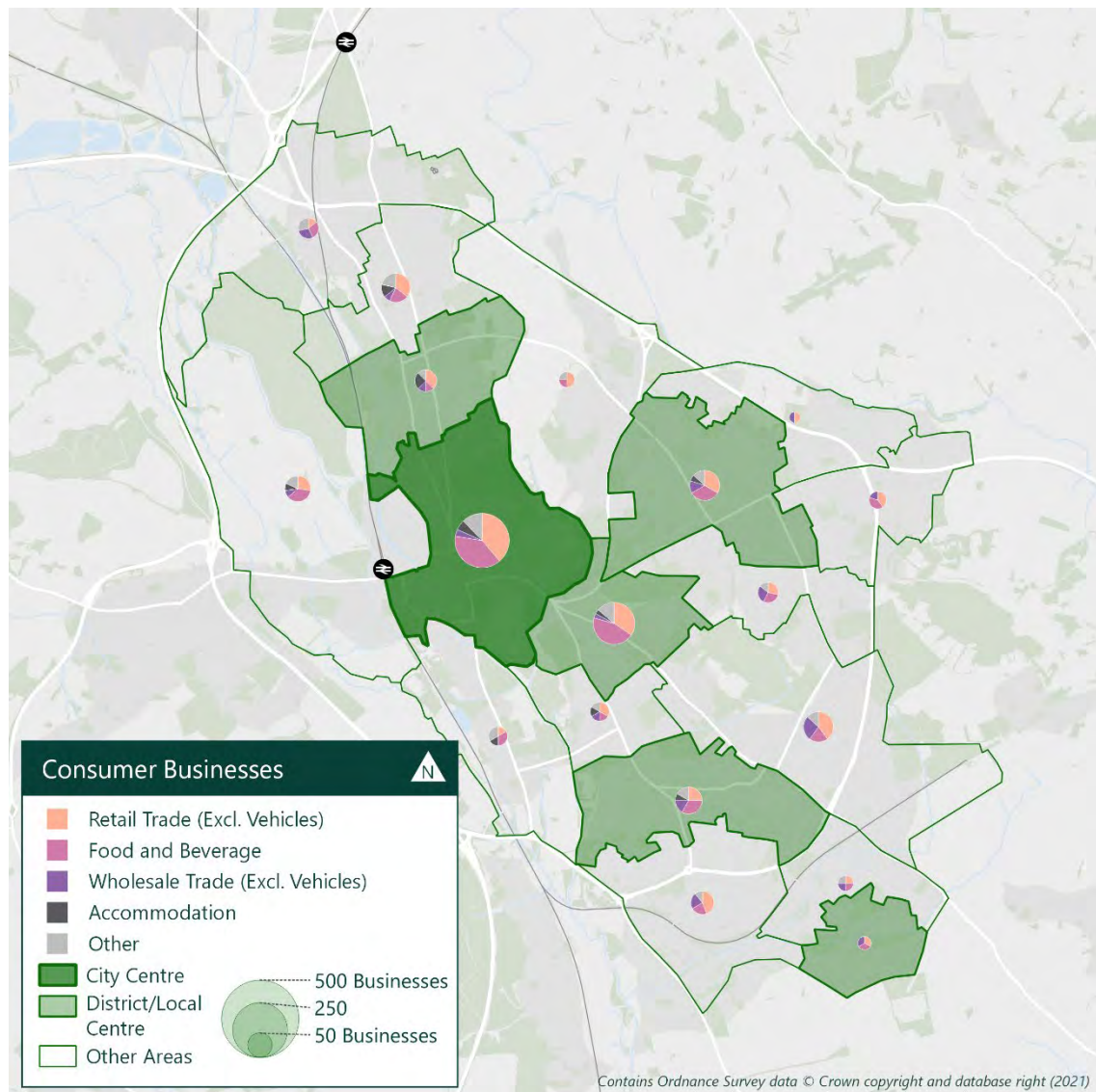


Figure 4.10: Map of consumer services businesses in Oxford by industry, 2021



Source: Steer

Public sector

Schools

- 4.22 There are 69 schools within Oxford. There are 32 state-funded primary schools in Oxford, with approximately 10,200 pupils.⁸ The average size of a primary school in England in 2020 was 281⁹.

⁸ [Workbook: Oxfordshire School Census Dashboard \(tableau.com\)](https://tableau.com)

⁹ [Schools, pupils and their characteristics, Academic Year 2019/20 – Explore education statistics – GOV.UK \(explore-education-statistics.service.gov.uk\)](https://gov.uk/explore-education-statistics.service.gov.uk)

- 4.23 The largest secondary school, The Cherwell School, has over 1000 pupils and is in a local centre. There is one community special school, Oxfordshire Hospital School.¹⁰
- 4.24 There are three institutions for pupils aged 16+. Two of these are in the city centre and one is located in a local centre.
- 4.25 Table 4.1 summarises the number of each type of school.

Table 4.1: Number of each school type in Oxford¹¹

Type of school	Number
State-funded nursery	4
State-funded primary	32
State-funded secondary	6
State funded special school	5
Independent school	19
College (16+)	3
Total	69

- 4.26 According to pupil to teacher ratio data available for Oxfordshire¹², there is on average 11 pupils per adult across all types of school in Oxfordshire. There are approximately 18,000 pupils in Oxford¹³. If applying the ratio to the pupils in Oxford, it represents a school workforce of 1,600. Ratios will vary for different types of school but for the purposes of this assessment, we assume a school workforce in Oxford of between 1500-2,000.

Universities

- 4.27 There are two universities in Oxford:
1. University of Oxford – located within the city centre. In the academic year 2020/21, there were 27,150 students and 14,572 staff.
 2. Oxford Brookes University – campus located in Headington. In the academic year 2020/21 there were 17,795 students and 2,800 staff¹⁴.
- 4.28 Figure 4.11 shows the distribution of schools and universities in Oxford. There is a relatively even distribution of schools in Oxford. Higher education institutions are generally closer to the centre.

¹⁰ Data from Edubase 21/01/2021 census.

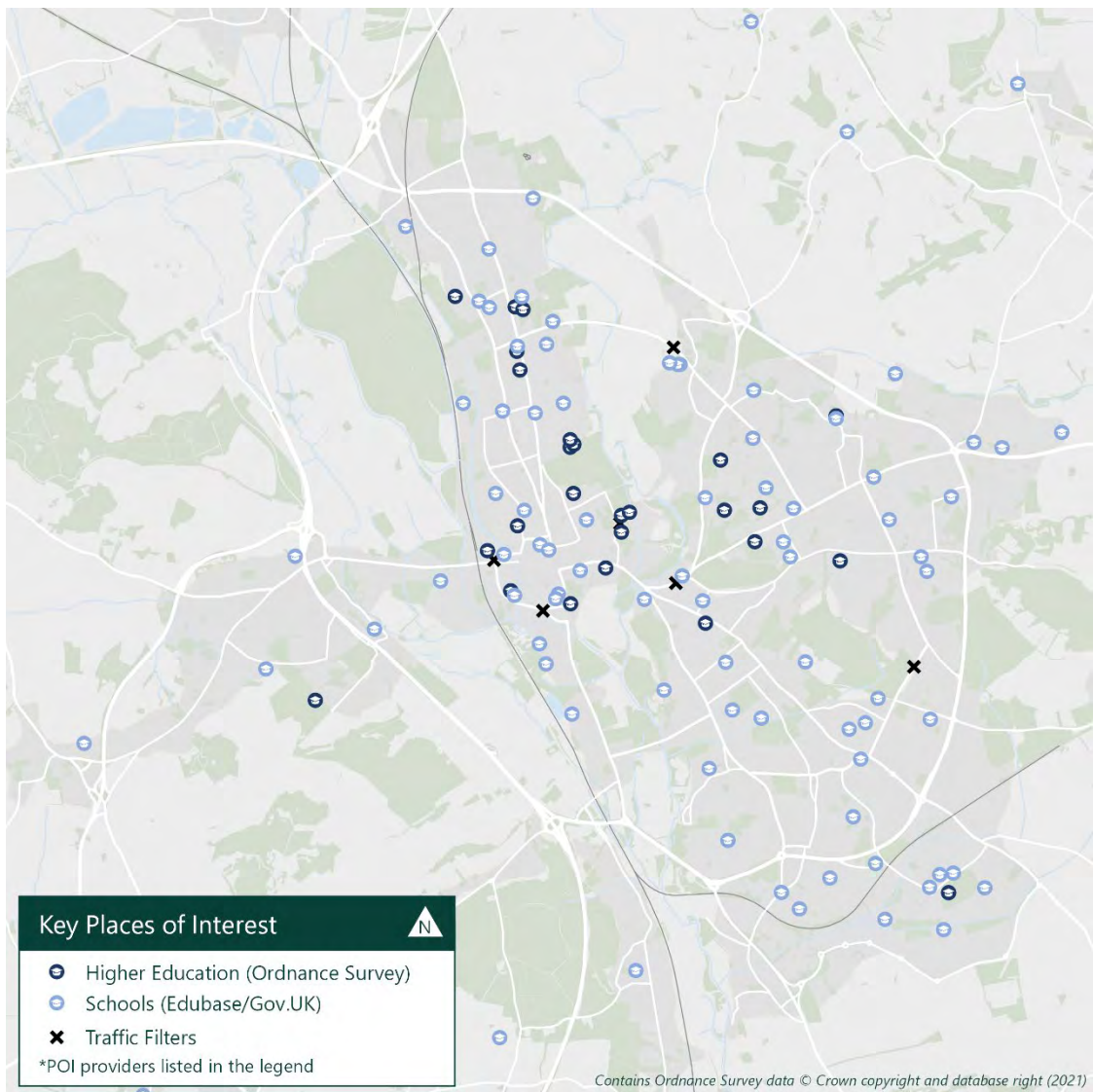
¹¹ Oxfordshire School Census Dashboard, Oxfordshire City Council
https://public.tableau.com/views/OxfordshireSchoolCensusDashboard/Dashboard?embed=y:display_count=no&:showVizHome=no#4

¹² School workforce in England, 2021, Pupil to teacher ratios, Gov UK (<https://explore-education-statistics.service.gov.uk/data-catalogue/school-workforce-in-england/2021>)

¹³ [Workbook: Oxfordshire School Census Dashboard \(tableau.com\)](#)

¹⁴ [Data and analysis | HESA](#)

Figure 4.11: Schools and higher education institutions in Oxford



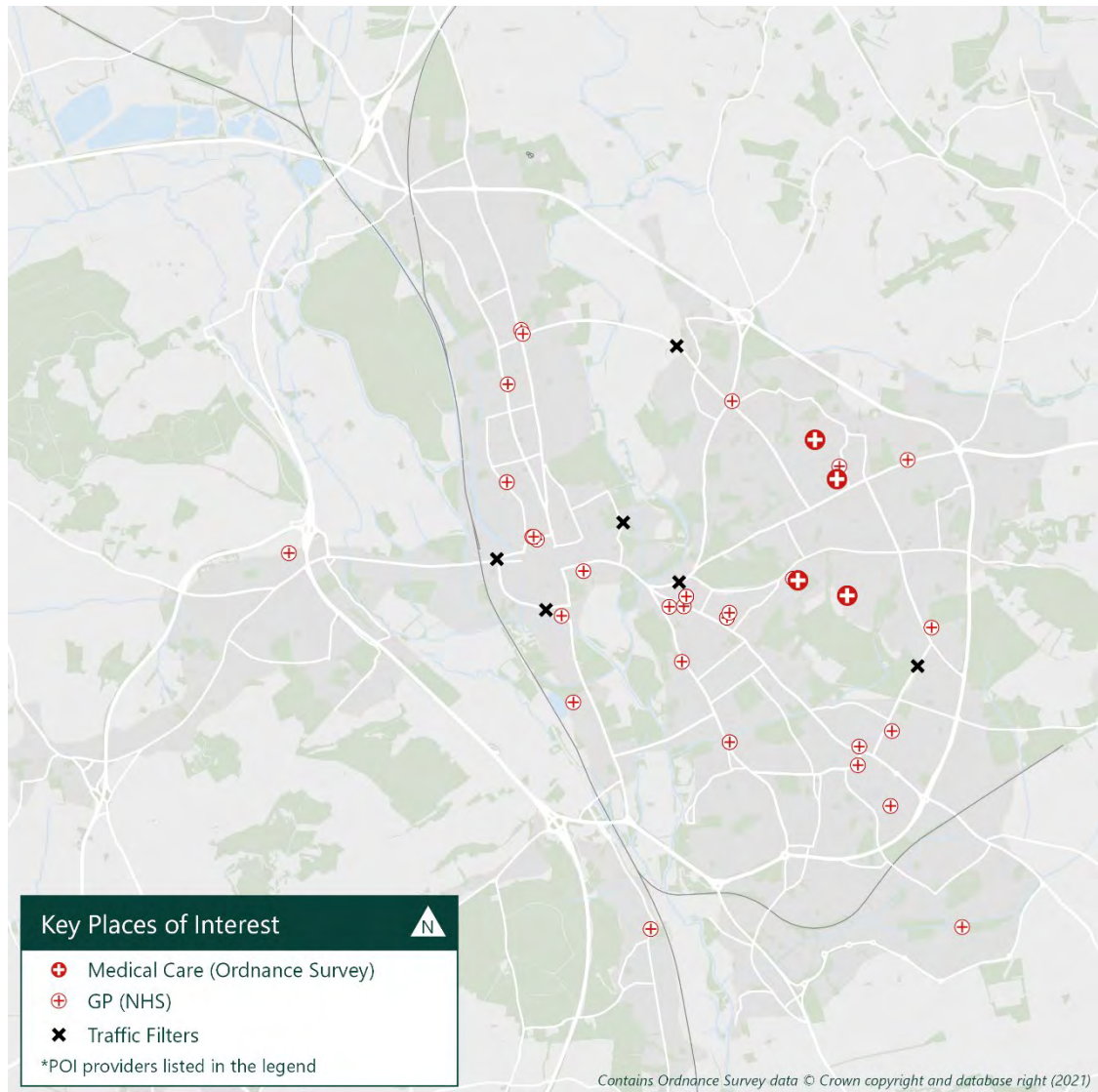
Healthcare

- 4.29 Employment data on healthcare¹⁵ has been analysed at a 2-digit SIC level, where the relevant sector is 'Human health activities', which encompasses activities of hospitals, medical and dental practices, and other related.
- 4.30 In 2020 (latest available data), there were 18,000 people employed in healthcare in Oxford. There are 15 medical care sites, as shown in Figure 4.12. Employment numbers were highest in the MSOAs where The John Radcliffe Hospital and Churchill Hospital are located; 10,000 employees in the former and 4,000 in the latter.
- 4.31 Oxford is a hub for teaching hospitals - Oxford University Hospitals NHS Foundation Trust is a large employer in Oxford, with 10,730 employees in 2018, along with the Oxford Health NHS

¹⁵ Data obtained from 'Business Register and Employment Survey: open access' from the Office for National Statistics.

Foundation Trust which had 6,250 employees.¹⁶ Medical care facilities are concentrated in the east of the city with GP surgeries in residential areas in all parts of the city.

Figure 4.12: Healthcare providers in Oxford

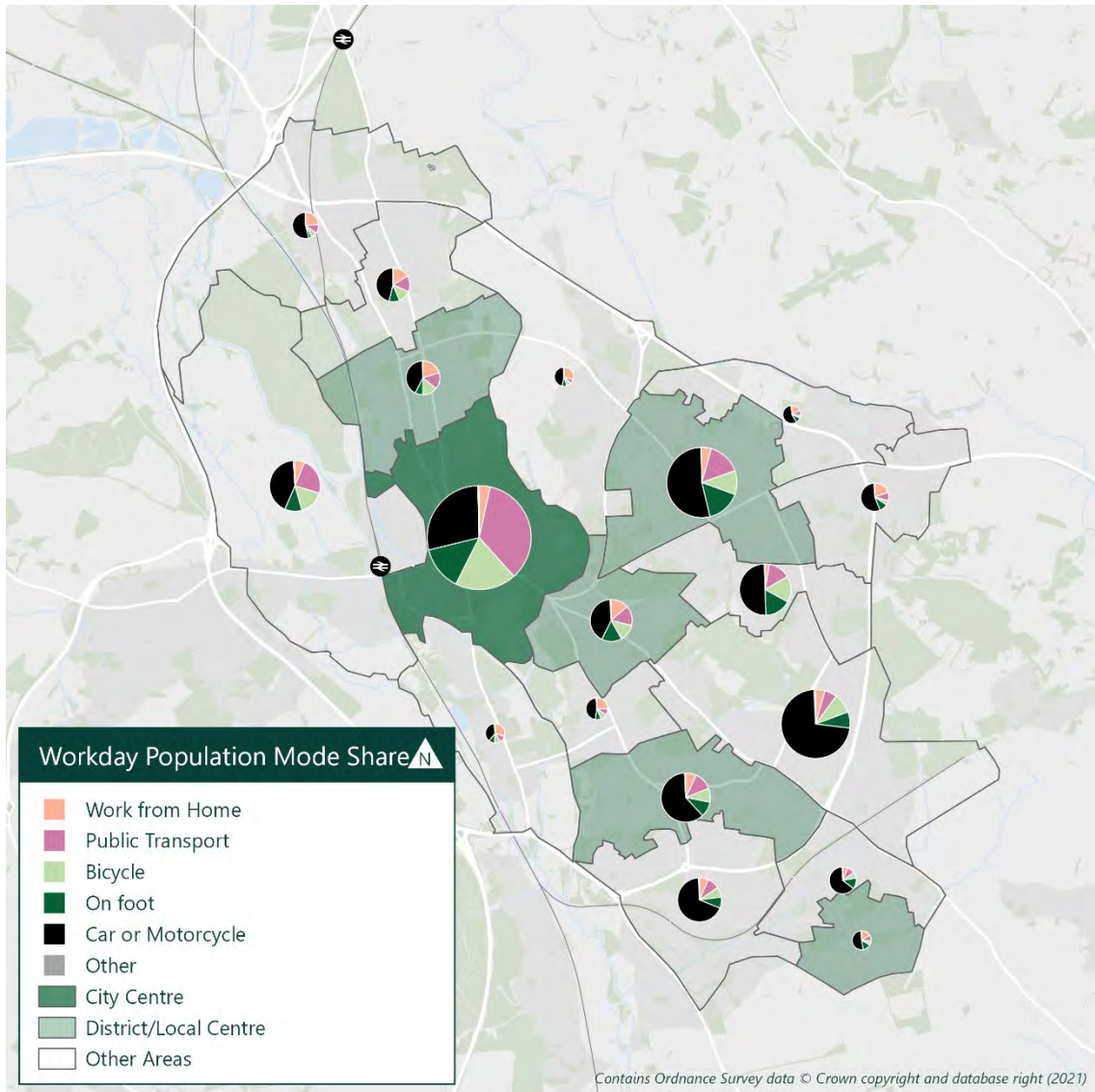


Travel to work

- 4.32 Travel to work patterns by MSOA for Oxford from the 2011 census are shown in Figure 4.13. The map shows the proportion of workers commuting by car **to** each MSOA. It shows that the proportion of commuters travelling by car is lower in the city centre and district centres, with higher proportions of car commuting (albeit lower overall flows) in other areas. While the 2011 Census is a rich dataset of work journeys, it is more than ten years old. 2021 Census travel data will not be available until 2023 and was collected during a the Covid-19 pandemic which affected commuting patterns and will be less useful in understanding travel to work in the post-pandemic context.

¹⁶ [Oxford Economic Profile January 2018.pdf](#)

Figure 4.13: Travel to work by MSOA



5 Traffic Filters Business Impact Assessment

5.1 This section considers potential impacts on the following types of business:

- Transport and distribution
- General businesses
- Consumer services businesses
- Public sector (schools, hospitals, universities)

5.2 The scoping of potential impacts takes into account the core exemptions as described in section 1 and repeated here. The exemptions that are most likely to affect businesses in general are underlined.

Exemptions:

- Buses and coaches
- Taxis and Private Hire Vehicles
- Special vehicles such as emergency services
- Mopeds
- Motorbikes
- Vans (excluding people carriers)
- Heavy goods vehicles (HGVs)

Permits available:

- Blue badge holders
- Professional health or care workers
- Non-professional carers (for operational journeys, not commuting)
- Residents living in the permit area (100 day passes)
- Cars used as goods vehicles by businesses based in the permit area

Directly affected (transport and distribution)

5.3 Directly affected transport and distribution businesses include taxi and private hire operators, businesses with fleets of vehicles and bus operators.

Taxi/private hire operators

*Disproportionately **positive** impacts*

5.4 Taxi/private hire operators are exempt from the traffic filters and will experience disproportionately positive travel time impacts, as they will be able to travel through the filters freely with minimal delay.

5.5 As a result of travel time savings, this type of business will also experience disproportionately positive impacts on direct costs – as journey times reduce, the vehicle fleet can be used more

efficiently, reducing overall costs. A further positive impact for these businesses may be increased demand for business as shorter journey times by taxi may attract more customers.

Businesses with fleets of vehicles

Disproportionately positive impacts

- 5.6 Businesses with fleets of vehicles, such as delivery companies, are exempt from the traffic filters and may experience shorter journey times for journeys using the roads where traffic filters are installed, due to reduced general traffic and congestion in those areas. There will be positive impacts on businesses of all sizes. The map in Figure 4.1 shows a high proportion of businesses likely to operate a fleet of vehicles are within the central areas of Oxford and therefore likely to make journeys involving routes where filters are proposed – these businesses should benefit from the filters.
- 5.7 Journey time savings for transport and distribution businesses may reduce the direct costs of business. For example, more deliveries per vehicle per day could be made by a distribution company, reducing the overall cost per delivery. Where cost savings are passed on to customers, this may disproportionately benefit lower income groups.
- 5.8 It is unlikely that there will be any disproportionate impact on HGV operators as HGVs are more likely to use the Ring Road than routes where filters will be installed.

Bus operators

Disproportionately positive impacts

- 5.9 Bus operators are exempt from the traffic filters and will experience disproportionately positive travel time impacts, as they will be able to travel freely through the filters with minimal delay.
- 5.10 As a result of travel time savings, this type of business will also experience disproportionately positive impacts on direct costs – as journey times reduce, the vehicle fleet can be used more efficiently, reducing overall costs. A further positive impact for these businesses is increased demand for business as shorter journey times by bus may attract more customers.
- 5.11 Operators of private buses/coaches are also exempt from filters and will experience the same positive impacts as for public bus operators of being able to move more freely without experiencing congestion.

Impact on Businesses Operations in Oxford (general)

City centre

Disproportionately positive impacts

- 5.12 The traffic filters are likely to improve business operations due to the exemptions for vans and HGVs and availability of permits for cars used as goods vehicles by businesses based in the permit area. Business operations will be able to continue as they are without any changes to routing or timing of deliveries and may become more efficient due to reduced congestion.

District centres

Disproportionately positive impacts

- 5.13 The traffic filters are likely to improve business operations due to the exemptions for vans and HGVs and availability of permits for cars used as goods vehicles by businesses based in the

permit area. Business operations will be able to continue as they are without any changes to routing or timing of deliveries and may become more efficient due to reduced congestion. Businesses who rely on travel around Oxford during the working day, including mobile tradespeople using cars used as goods vehicles, will be exempt from the filters or will be able to obtain a permit to travel through them. They may therefore benefit from more efficient journeys due to reduced congestion.

Other

5.14 No disproportionate impact.

Outside Oxford

5.15 No disproportionate impact.

Impact on Consumer Services Businesses

5.16 The customer demand impacts on consumer services businesses will vary depending on the nature of the customer base: the modes of travel used for access, the customer catchment area and whether journeys to access the business are likely to involve travel on roads where filters are proposed. Businesses that have a higher reliance on customers making journeys across Oxford or between Oxford's suburbs by car may be more affected by the filters.

5.17 Customers that currently access consumer services businesses by car using a route where a filter is proposed may respond in the following ways:

1. Change mode of travel
2. Continue to travel by car, but choose an alternative route
3. Continue to travel by car using the same route, using a resident permit
4. Continue to travel by car but change the time of the journey to avoid the hours of filter operation (i.e. travel before 7am or after 7pm)
5. Continue to travel by car but change the day of the journey to avoid the hours of filter operation (i.e. travel on Sundays to avoid the hours of filter operation on Marston Ferry Road and Hollow Way)
6. Change destination or choose to travel less often to the current destination.

5.18 It is option six which is most likely to impact on consumer services businesses, as it may reduce customer demand and is the focus of the assessment in this section.

City centre

*Disproportionately **positive** impact*

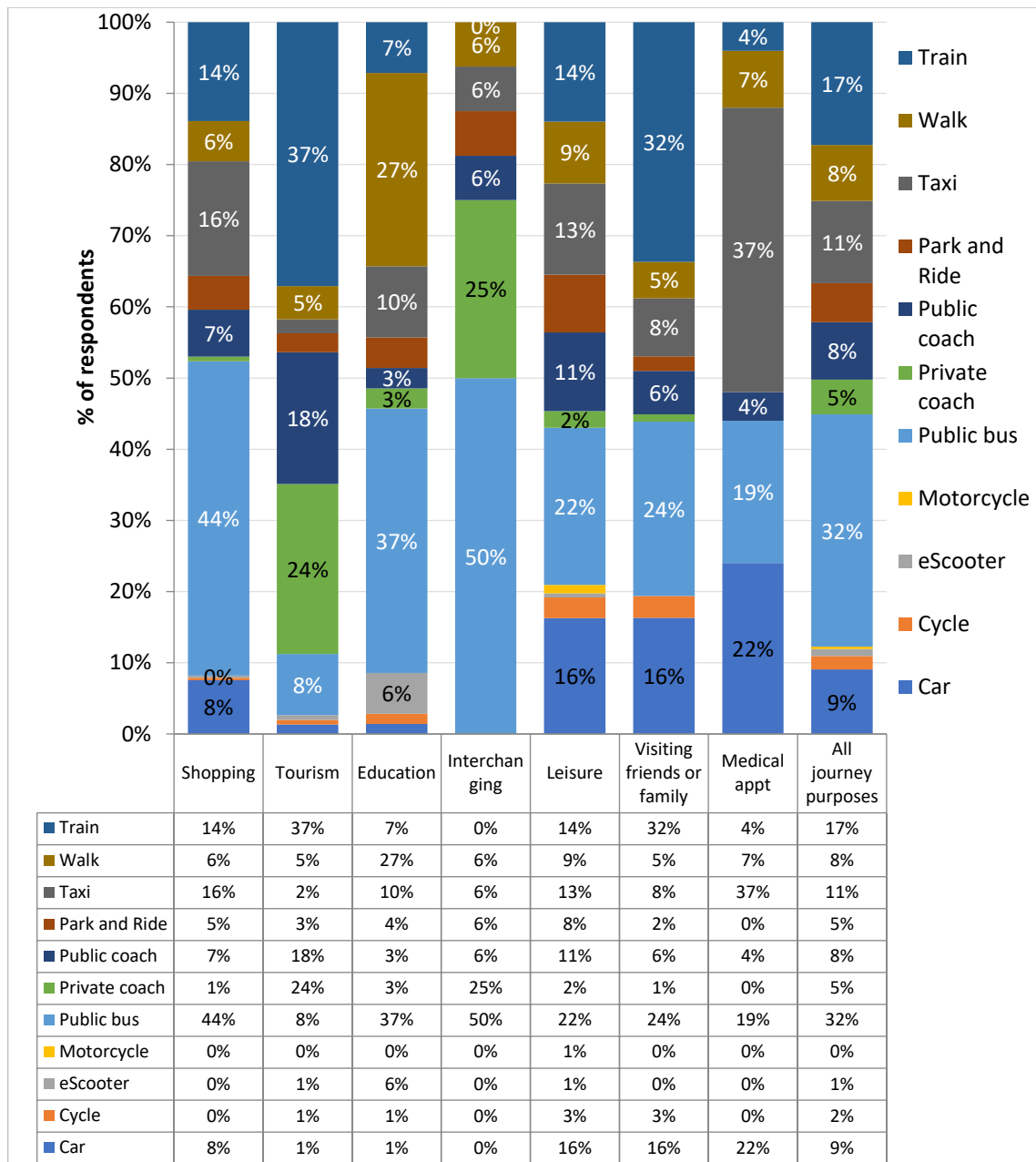
5.19 It is expected that there will be a positive impact on city centre consumer services businesses as a large majority of their customers access the city centre by modes other than the private car (public transport, walking, cycling, taxi). Journeys by these modes are expected to either be quicker, safer or more pleasant as a result of the filter proposals.

5.20 Evidence is available about modes of access to the city centre from previous surveys.

5.21 In May 2022 Oxfordshire County Council completed an interview survey of pedestrians in the city centre. The survey included questions to understand how people travel and how often, the purposes of those trips and how much they spend. 1,021 respondents were interviewed in the city centre.

- 5.22 The surveys were undertaken on weekdays and weekends during week commencing 23rd May 2022 between 8am-7pm. Surveyors intercepted people at random in the street, aiming to interview the next available person. As a check on how representative the survey was of people in the area, the profile (approximate age and gender) of people who refused to take part in the survey was also collected. The survey respondent profile was found to be closely aligned to the profile of people in the area who refused to take part in the survey, indicating the survey is broadly representative of people in the city centre.
- 5.23 The survey found that most customers access consumer services businesses in the city centre using public transport, walking and cycling. For shopping journeys to the city centre, the 2022 survey found that 44% were made by bus, 16% by taxis and 14% by train with just 8% being made by car. Car mode share was similarly low for leisure (16% car mode share) and tourism (1%) journeys that may include use of consumer services businesses. The mode split for journeys to the city centre by journey purpose is shown in Figure 5.1.
- 5.24 Customers travelling by bus and taxi, which are both exempt from the filters, will benefit from shorter journey times to access the city centre, which is likely to bring a disproportionately positive impact for city centre consumer services businesses in terms of increased consumer demand.
- 5.25 Surveys undertaken by Oxfordshire County Council in 2017 and 2022 both established a low car mode share for journeys to the city centre (7% in 2017 and 9% in 2022).

Figure 5.1: Mode used to travel to the city centre, 2022 survey



District centres

5.26 Impacts on consumer businesses in district centre are likely to vary according to:

- Access by car / the number of customers travelling by car
- Frequency of customer visits
- Location of business in relation to traffic filters.

Access by car

5.27 The mode of travel and trip origins of customers travelling to district centres is generally not known – data collected in the census only relates to work travel and there is no equivalent data collection exercise for customer travel.

- 5.28 It is generally more likely for more customers to travel by car to access consumer services businesses that are located in retail centres that are designed for access by car, and where car parking is provided. More traditional “high street” district centres within inner urban areas with less parking provision are less likely to attract car-borne customers.
- 5.29 Of the district centres in Oxford, Jericho, Cowley Road/St Clements, Summertown and Headington are more traditional “High Street” centres and Templars Square in Cowley is an edge of centre, more car-oriented shopping destination.
- 5.30 Two pieces of evidence are available to support an understanding of access by car to consumer service businesses in district centres:
- Pedestrian survey in Jericho
 - Level of off-street car parking provision

Pedestrian survey in Jericho

- 5.31 Some information is available on travel to Jericho district centre from a survey undertaken in May 2022 that took the same approach as the city centre survey described in 5.20. The survey included questions to understand how people travel and how often, the purposes of those trips and how much they spent. 276 respondents were interviewed on-street across several locations in Jericho.
- 5.32 The survey found that most respondents travelling to Jericho travelled by non-car modes with public transport (including Park and Ride) accounting for the majority of journeys (52%). Only 2% travelled to Jericho by car. The mode split for journeys by respondents to the survey was:
- Public bus 22%
 - Park and Ride 15%
 - Taxi 15%
 - Train 10%
 - Walk 9%
 - Private coach 9%
 - Public coach 5%
 - eScooter 4%
 - Cycle 5%
 - Other 1%
 - Car 2%
 - Motorcycle 2%

- 5.33 For Jericho, the impact of traffic filters on customer demand is likely to be minimal, as the survey undertaken demonstrates that a small minority of customers travel by car. Although the mode share for customers travelling to Headington, Summertown and Cowley Road/St Clements is unknown, they share similar characteristics to Jericho of a high street environment within an urban area and therefore are likely to be less dependent on customers travelling by car.

Level of off-street car parking provision

- 5.34 Availability of car parking is likely to be a key influence on the number of people accessing district centres by car. Off-street parking operated by Oxford City Council is available in district centres as shown in Table 5.1. Off-street car parking is used as a general proxy for accessibility by car (on-street parking is also available in each area).

Table 5.1: Oxford City Council off-street car parking in district centres

District centre	Oxford City Council off-street pay and display car parking
Jericho	No Council-operated off-street parking
Headington district centre	167 spaces
Cowley Road/St Clements district centre	154 spaces
Summertown district centre	122 spaces
Cowley /Templars Square	“Several hundred” parking spaces in the Templars Square complex, a purpose-built shopping centre with larger retail units.

5.35 Based on the provision of off-street car parking and location of each district centre, the diagram below assesses how likely customers are to travel by car. Although the level of car use by customers visiting Headington, Summertown and Cowley Road/St Clements is unknown, it can be expected that the majority of customers travel by non-car modes. For Cowley and Templars Square there is likely to be a much higher level of car use.

Less likely	>>>	More likely
Jericho	Headington Summertown Cowley Road/St Clements	Cowley / Templars Square

Frequency of customer visits

5.36 As described earlier, residents of Oxford and some adjoining parishes will be eligible for up to 100 permits each year that allow them to make journeys through the filters. This equates to about two days a week on average – eligible residents who make journeys to district centres by car twice a week or less will be able to use permits for such journeys.

5.37 Some information from the Jericho survey and National Travel Survey on frequency and mode of shopping journeys is available, which may indicate likely frequency of travel to district centres and whether the resident permits mitigate potential impacts on car-borne customer demand.

- In Jericho, 20% of respondents visited 3-4 times a week and 6% visited 5 or more times a week. 74% of respondents visit twice a week or less often. The Jericho survey sample included 19% of respondents whose journey purpose was tourism many of whom were infrequent or first time visitors – other district centres are likely to have fewer tourists.
- According to the National Travel Survey¹⁷, the average number of shopping trips made per week (in 2019, pre-Covid) was 3.5 and the average number of trips for entertainment was 1.1 per week. Such trips in Oxford may involve travel to a district centre to access consumer services.

Assessment

5.38 The traffic filters will not prevent customers from travelling by car. Some car journeys by customers may, however, be affected by the filters with increased journey times for some car

¹⁷ Department for Transport (2022) NTS 0403- Average number of trips (trip rates) per person per year by trip purpose: England, from 1995/97 (including short walks)

journeys which could influence customer decisions about whether to use shops and services in district centres and which district centres to visit.

- 5.39 Based on the information about mode and frequency of travel above, it is likely that there is a relatively small number of customers who travel by car to district centres more than twice a week. While resident permits may be an option for some of those journeys, some will require changes to how those customers use district centres. Where customers choose to visit less often or shop/visit/dine elsewhere, customer demand may be reduced at some businesses. This may particularly affect more “niche” businesses and large businesses that attract car travel across suburbs (if residents do not have access to this type of business where they reside they may make journeys across suburbs to access them).
- 5.40 Table 5.2 considers the various types of consumer business and how customer demand may be impacted. Impacts are considered with reference to the likely catchment area for each type of business. Three catchment areas are considered:
- **Local:** catchment area small and close to the business location, customers may not need to travel through filters and are more likely to be within walking and cycling distance.
 - **Across Oxford:** Catchment area includes the local catchment and other parts of Oxford within the proposed permit area (Figure 2.2).
 - **Outside Oxford:** Catchment area of the business includes the proposed permit area and other areas outside it.
- 5.41 The likely proportion of customers travelling from each catchment type is included in the table.

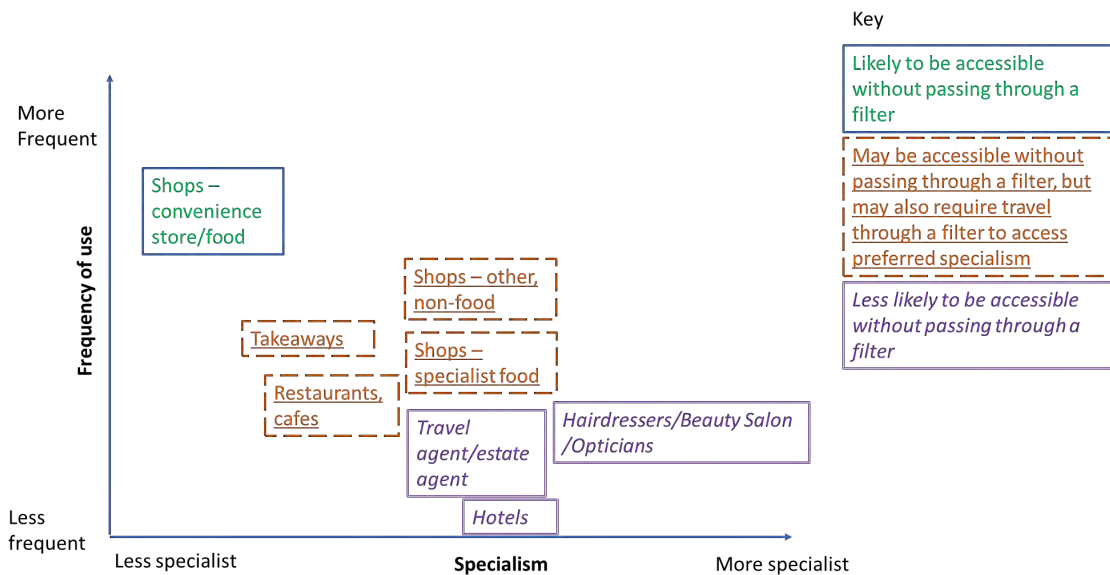
Table 5.2: Customer demand impacts for consumer businesses

Type of consumer business	Local catchment	Catchment across Oxford	Catchment in and Outside Oxford	Customer demand impact
Shops – convenience store/food	High	Low	None	Predominantly local catchment. Minimal impact as convenience stores are available in each suburb reducing the need for customers to travel through filters to access them.
Shops – specialist food	Med	Med	Low	Catchment is across Oxford. Impact is dependent on availability of similar shops in other suburbs, the extent to which customers travel by car from neighbouring suburbs and frequency of visit.
Shops – other	Med	Med	Low	Catchment is across Oxford. Impact is dependent on availability of similar shops in other suburbs, the extent to which customers travel by car from neighbouring suburbs and frequency of visit.
Restaurants, cafes	Med	Med	Low	Catchment is dependent on nature of business but may include travel across Oxford. Minimal impact for restaurants and cafes whose trade is predominantly in the evening after 7pm when traffic is permitted to travel through filters. For restaurants and cafés that are busy during the day, the impact may be greater. Cafés and restaurants may attract customers from other suburbs who travel by car, particularly where there is a more “niche” cuisine on offer that is not available in other suburbs. Impact is minimised by likely low car mode share for cafes and lower daytime trade for restaurants. Travel for “entertainment” purposes is less frequent than for shopping trips so residents may be able to make such trips by car using resident passes.
Takeaways	High	Low	Low	Predominantly local catchment but may attract customer from across Oxford if more specialist. Impact for takeaways is minimised for those whose trade is predominantly in the evening after 7pm (assumed to be most takeaways) when traffic is permitted to travel through filters.
Hotels	Low	Low	High	Customers are likely to be drawn from outside Oxford which means customers can access from appropriate junction of the Ring Road. Some impact on daytime events that draw a more local Oxford audience.
Hairdressers/Beauty Salon / Opticians etc	Med	Med	Low	Higher impact for more specialist businesses that draw car-borne customers from across Oxford. Trips to this type of business are infrequent - residents may be able to make such trips by car using resident passes.
Travel agent/estate agent	Low	Med	Low	Minimal impact - trips to this type of business are infrequent so residents may be able to make such trips by car using resident passes.

5.42 Overall, the availability of resident permits and likely low levels of car use for access combine to minimise the potential impact on customer demand for consumer services businesses in district centres. There is a possible disproportionately negative impact on businesses who rely on customers travelling more than two days a week by car, but it can be expected that this is a small minority of businesses.

5.43 This is illustrated by Figure 5.2 which plots different types of consumer services business on a matrix of frequency of customer use and level of specialism of each business. Each business is then highlighted according to whether customers are likely to have to pass through a filter to access them. Customers of convenience/food stores are most likely visit more than twice a week, but this type of business is also more likely to be accessible locally without passing through a filter.

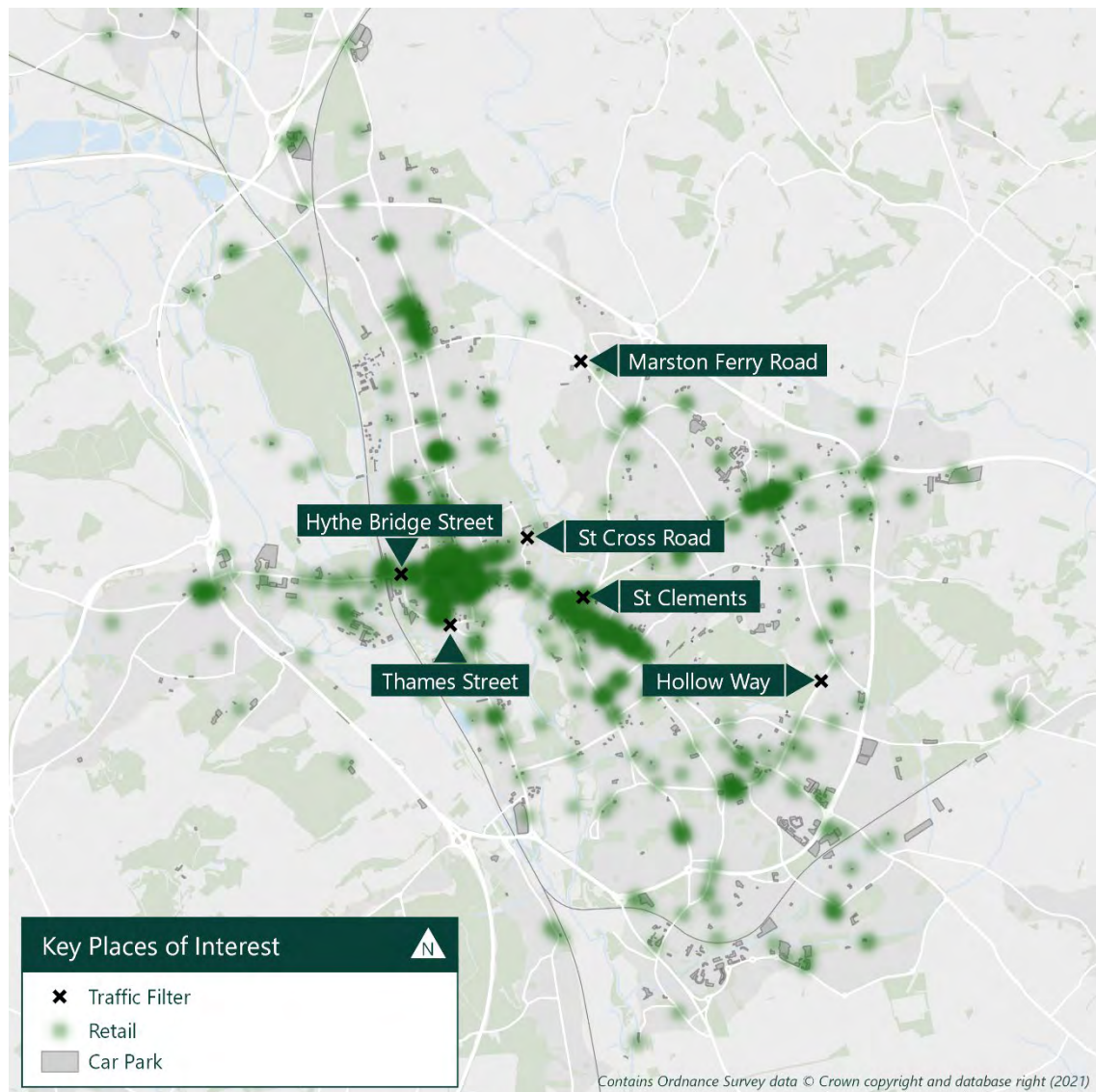
Figure 5.2: Frequency of travel, specialism of business and likelihood of passing through a filter



5.44 The map in Figure 5.3 shows the concentrations of consumer services businesses in Oxford and the location of traffic filters, using data from OpenStreetMap. The dark green areas are where there are high concentrations of consumer services businesses.

5.45 The filter at St Clements in particular is located close to a cluster of consumer services businesses, which may affect travel by car from locations to the east. Customers who travel by car may choose to use different district centres or travel to other destinations to avoid the filters. It is possible that, if customers respond to the filters in this way, the impacts will be spread across the city, so that no single district centre is impacted - where customers are lost to other district centres, there may also be a gain of customers from the local area who previously travelled elsewhere.

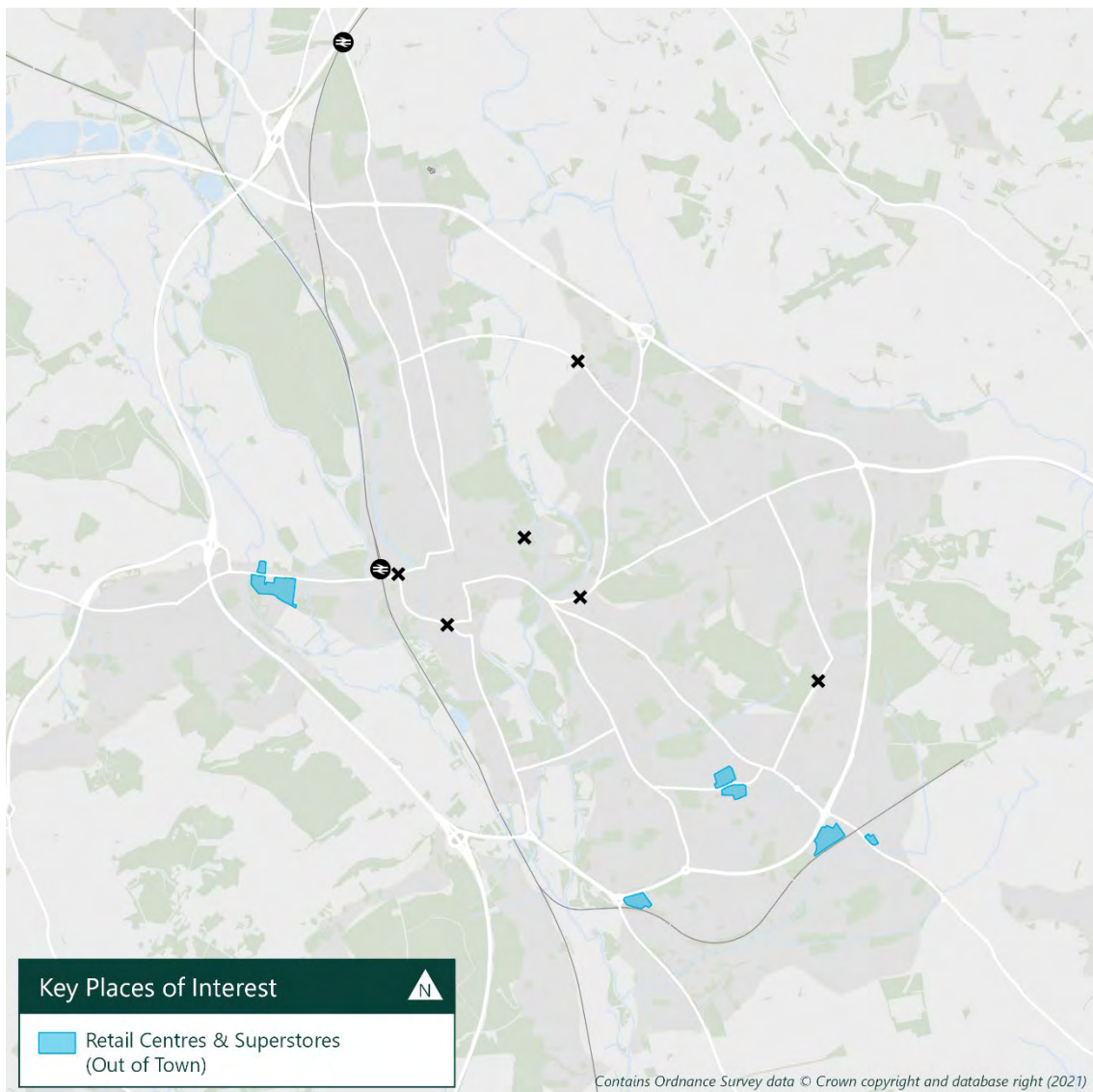
Figure 5.3: Location of Consumer Services Businesses in relation to Traffic Filters



Other

5.46 Customers travelling to larger consumer services businesses at retail parks on the city fringe within the ring road (Botley Road, Seacourt Tower Retail Parks) may experience increased journey times that could influence customer demand. Such businesses are more reliant on car borne custom and may be disproportionately impacted by the filters. This is partly mitigated by being located close to the ring road to which car-borne customers will be diverted by the filters, which means that accessing these sites will still be convenient for drivers. Businesses at retail parks may also become more attractive to a relatively small number of people who currently drive to the city centre and are unwilling or unable to change mode. The locations of Botley Road and Seacourt Tower retail parks in relation to the traffic filters is shown in Figure 5.4

Figure 5.4 “Out of town” Retail Centres and Superstores



Outside Oxford

5.47 No disproportionate impact on consumer services businesses outside Oxford.

Public sector

Schools

Disproportionately positive impacts

5.48 The traffic filters are likely to have a disproportionately positive impact on school pupils who are more likely to travel by walking, cycling and bus compared to the general population. The reduction in general traffic will improve walking, cycling and bus journeys which account for the majority of pupil trips (67% of primary school trips, 84% of secondary school trips as of the 2011 school census for schools in Oxfordshire). The improvements in walking, cycling and bus journeys may encourage pupils/parents to shift from travel by car to travel by these modes, which would have a beneficial impact on the operation of schools, from reduced need to manage issues related to congestion and parking.

- 5.49 There may be a moderate labour market impact (specifically recruitment and retention) as a result of longer journey times for car journeys which may influence the decisions of school staff about work location. As noted in the government's *Teacher Recruitment and Retention Strategy*¹⁸ "it has become increasingly difficult to recruit and retain staff of the calibre required". The strategy also notes that a buoyant labour market increases recruitment challenges and that there are significant retention challenges, particularly for early career teachers.
- 5.50 Recruitment and retention in schools may also benefit from positive impacts of filters in making bus journeys quicker and more reliable and reducing the likelihood of bus services being cut, enabling schools to recruit and retain staff who rely on public transport.
- 5.51 The extent of the impact is dependent on how school staff travel and where they travel from, for which data is not readily available. It can be expected that there is a high car mode share for staff journeys at most schools because:
- Teaching is a specialist, skilled profession so schools are likely to draw staff from a wide catchment area to secure qualified teachers for subject specialisms.
 - Schools are more likely to be located in suburban, residential areas with fewer direct public transport links, particularly for longer distance journeys.
 - Car parking is usually provided free of charge
 - In combination, these factors mean that commuting by car is likely to be quicker and therefore the mode of choice for most school staff.
- 5.52 In summary, any increased car journey times arising from the filters may impact more on recruitment of staff who commute by car (such as specialist teaching staff) but benefits of filters for local travel may support recruitment of staff who rely on public transport.

Hospitals

- 5.53 Health and care workers, and emergency workers are exempt from the traffic filters.
- 5.54 There may be a moderate labour market impact (specifically recruitment and retention) as a result of the longer journey times for car journeys which may influence the decisions of some hospital staff about work location.
- 5.55 As with schools, the impact of the filters may be more negative for the recruitment and retention of staff that travel by car from across the city (and who may be deterred or inconvenienced) by the filters with positive impacts for recruitment and retention of staff who rely on other modes (and therefore benefit from more improved journeys).

Universities

- 5.56 The traffic filters are likely to have a disproportionately positive impact on university staff and students who are more likely to travel by walking, cycling and bus compared to the general population. The reduction in general traffic arising from the filters is expected to improve walking, cycling and public transport journeys which account for the majority of staff trips

¹⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/786856/DFE_Teacher_Retention_Strategy_Report.pdf

(79%¹⁹) to University of Oxford and to Oxford Brookes University (59%²⁰). Students are even less reliant on car travel with 89% of student trips to Oxford Brookes and 97% of trips to University of Oxford made by non-car modes.

Summary

- 5.57 Scoring of the potential impacts on each of the business types based on the considerations discussed in this document was undertaken. The potential impact on each type of business was scored on a 7-point scale for travel time, direct costs, effect on business operations, effect on business demand / market and effect on labour market (recruitment & retention).
- 5.58 The scale used is shown below and the overall scoring is shown in Table 5.3.

Score	Impact
-3	Large adverse
-2	Moderate adverse
-1	Slight adverse
0	Neutral – no significant benefits or disbenefits
+1	Slight beneficial
+2	Moderate beneficial
+3	Large beneficial

¹⁹ University of Oxford Transport Strategy 2013 - 2018

²⁰ Oxford Brookes Sustainable Travel Survey 2019, Report February 2020

Table 5.3: Business impacts – overall scoring

Business type	Sub-group	Travel Time	Direct Costs	Effect on Business Operations	Effect on Business Demand / Market	Effect on Labour Market - Recruitment & retention
Directly affected (transport and distribution)	Taxi operators	2	0	0	1	0
Directly affected (transport and distribution)	PHVs	2	0	0	1	0
Directly affected (transport and distribution)	Businesses with fleets of vehicles	2	1	0	0	0
Directly affected (transport and distribution)	Bus operators (public buses)	2	1	0	1	0
Directly affected (transport and distribution)	Bus operators (private buses/coaches)	2	1	0	1	0
Directly affected (transport and distribution)	HGV operators	2	0	0	0	0
Businesses operating in Oxford (General)	City centre	2	0	0	0	0
Businesses operating in Oxford (General)	District centres	2	0	1	0	0
Businesses operating in Oxford (General)	Other	2	0	1	0	0
Businesses operating in Oxford (General)	Outside Oxford	0	0	0	0	0
Businesses (Consumer services)	City centre	1	0	0	1	0
Businesses (Consumer services)	District centres	1	0	0	1	0
Businesses (Consumer services)	Other	1	0	0	0	0
Businesses (Consumer services)	Outside Oxford	0	0	0	0	0
Public sector	Schools	0	0	1	0	-1
Public sector	Hospitals	0	0	0	0	-1
Public sector	Universities	0	0	0	0	0

Control Information

Prepared by

Steer
14-21 Rushworth Street
London SE1 0RB
+44 20 7910 5000
www.steergroup.com

Prepared for

Oxfordshire County Council
County Hall
New Road
Oxford
OX1 1ND

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Author/originator

IMB

Reviewer/approver

TWH

Other contributors

AIS

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