



2011 Census Topic Report

*Who cycles to work?
July 2014*



Who cycles to work?

Characteristics of people in Bristol who commute to work by bicycle

Contents

Headlines

1.0 Introduction

2.0 Characteristics of cycle commuters

- Sex
- Age
- Ethnic group
- Car availability
- Qualifications
- Occupation and employment
- Distance Travelled to Work

3.0 Where Bristol resident cycle commuters live

4.0 Conclusion

Who cycles to work?

Characteristics of people in Bristol who commute to work by bicycle

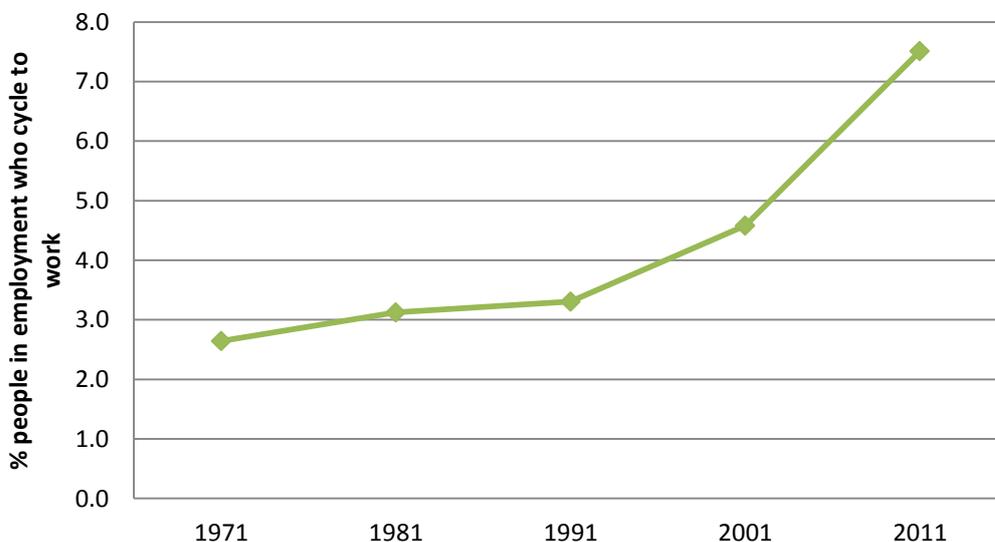
Headlines

- More people in Bristol commute to work by bicycle or on foot than in any other Local Authority in England and Wales.
- Cycle use has almost doubled - up 94% - and walking has increased by 40% between 2001 and 2011.
- More people cycle to work in Bristol than in Sheffield, Nottingham, Newcastle and Liverpool added together.
- A typical person who cycles to work in Bristol is likely to be a white male, aged between 25 and 39, with a degree, who works full time in a professional occupation and who cycles to their workplace which is between 2km and 5km away.
- The majority (57%) of people in employment age under 40 years get to work other than by driving.
- There are 44,000 people who travel less than 5km to work yet still go by car (13,000 drive less than 2km). This is bad for air quality, makes roads dangerous for children and older people, causes congestion and noise, and is bad for health.
- Ashley and Bishopston wards each have over a thousand residents who commute by bike, and every ward in the City has over a hundred bike commuters.

1.0 Introduction

1.1 Annual cycle traffic in Great Britain fell substantially from 24 billion kilometres in 1949, to 4.4 billion kilometres in 1994, although there was some revival from the mid-1970s to the mid-1980s¹.

Figure 1: Proportion of people in employment who commute to work by bicycle 1971 to 2011

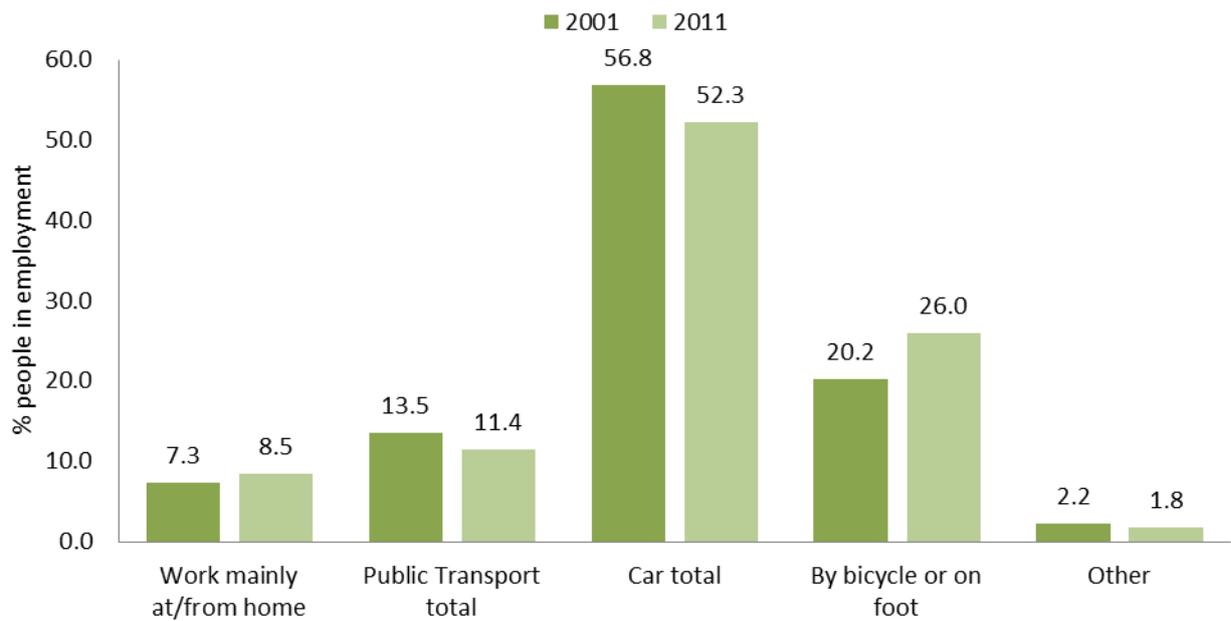


¹ Department for Transport, 1996 Transport Statistics Report. Cycling in Great Britain. HMSO.

1.2 Cycling as a means of travelling to work in Bristol has been steadily increasing since 1971 when just 2.6% of people travelled to work by bicycle compared to 7.5% in 2011 (see Figure 1).

1.3 Since 2001 there has been a modal shift amongst people living in Bristol and how they travel to work with a lower proportion of people driving and a greater proportion getting on their bike or walking (see Figure 2).

Figure 2: Mode of Travel to Work – proportion of people in employment who commute to work by mode

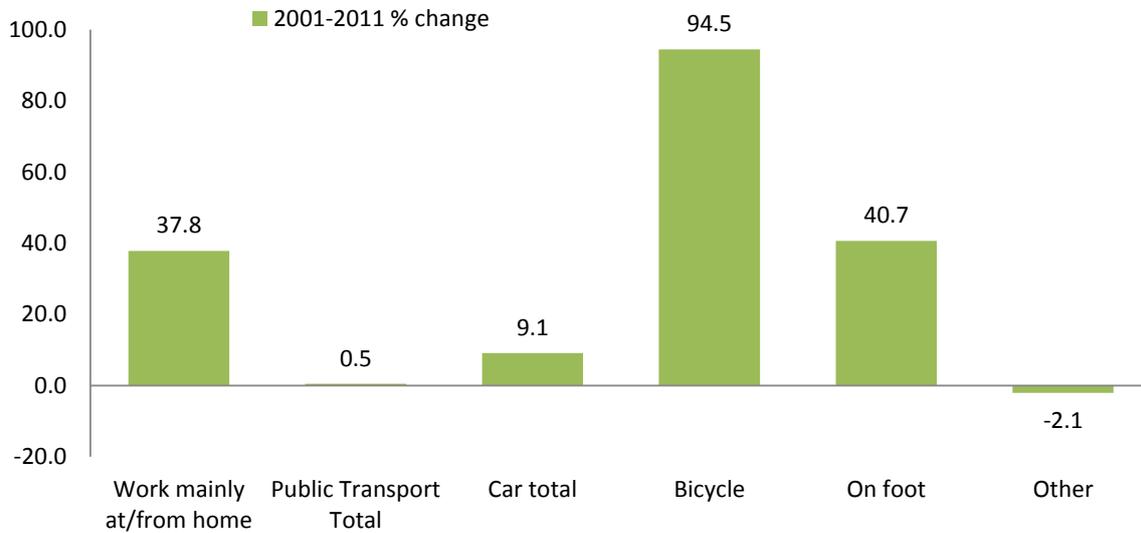


1.4 Between 2001 and 2011 Bristol experienced the most rapid rise in commuter cycling of all core cities outside London. A total of 16,211 (7.5%) of Bristol residents commute to work by bicycle - a 94% increase since 2001. More people in Bristol now commute to work by bicycle or on foot than in any other Local Authority in England and Wales. In fact more people cycle to work in Bristol than in Sheffield, Nottingham, Newcastle and Liverpool added together

1.5 Figure 2 shows how the different modes used to travel to work have changed as a proportion of all people in employment between 2001 and 2011. By far the greatest proportion of people still commute by car (as either a driver or a passenger) but this proportion has fallen relative to other modes of transport. The proportions of commuters who cycle or walk have both increased since 2001.

1.6 Figure 3 shows the percentage change in the number of workers who commute to work between 2001 and 2011 broken down by mode. Due to population growth over the last decade, the absolute number of commuters has increased by 33,000 during the ten year period which explains why most modes have increased. Commuting by bike has increased the most dramatically however, with an almost doubling of the number of people commuting to work by bicycle.

Figure 3: Percentage change in the number of people commuting to work by mode



2.0 Characteristics of cycle commuters

2.1 Characteristics of people who cycle to work vary based on sex, age and ethnic group, whether they have access to a car, what job they do, what qualifications they hold and by how far their place of work is from their home address.

These characteristics are analysed in more detail below.

Sex

2.2 More than two thirds (71%) of cyclists commuting to work are men - 11,172 men cycle to work compared to 4,625 women. Of all people in employment, 10% of male workers cycle to work compared to 4.6% of female workers.

Figure 4: Number of people in employment who cycle to work by sex



2.3 Since 2001, both the proportions of males and the proportion of females that cycle to work have increased – males up from 6.6% to 10% of males in employment and females up from 2.3% to 4.6% of females in employment. As a result, the balance between male and female cycle commuters continues to be predominantly male but the gap has closed a little since 2001.

Age

2.4 Cycling to work is most common amongst those aged 30 to 34 with 9.9% of workers in this age group cycling to work. Up to 55 years of age, the rate of cycling to work is above 5% for all age groups (see Figure 5).

Figure 5: Proportion of people in employment who cycle to work by age

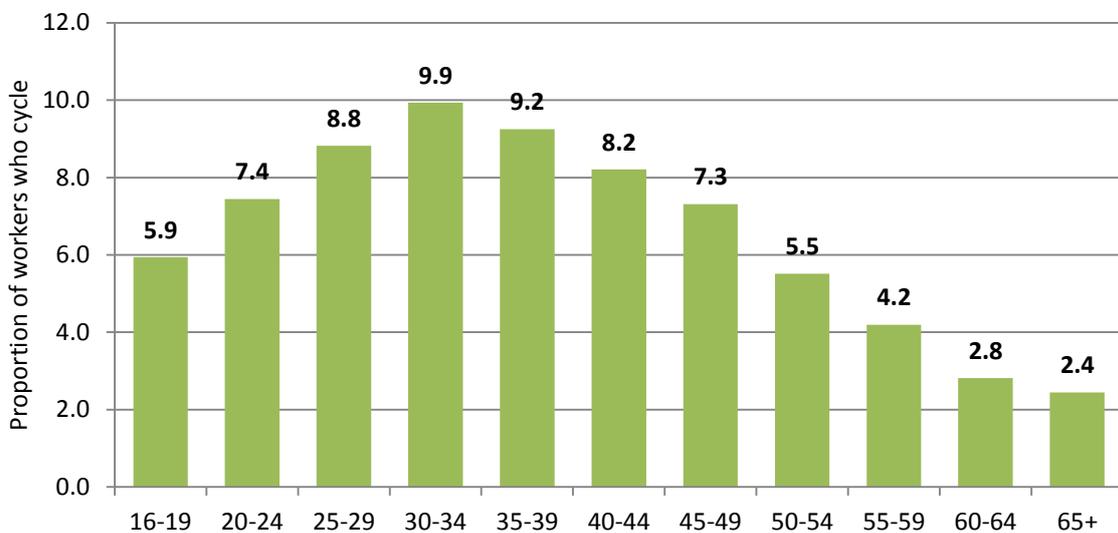


Figure 6: Proportion of people in employment by five year age band by mode of travel to work

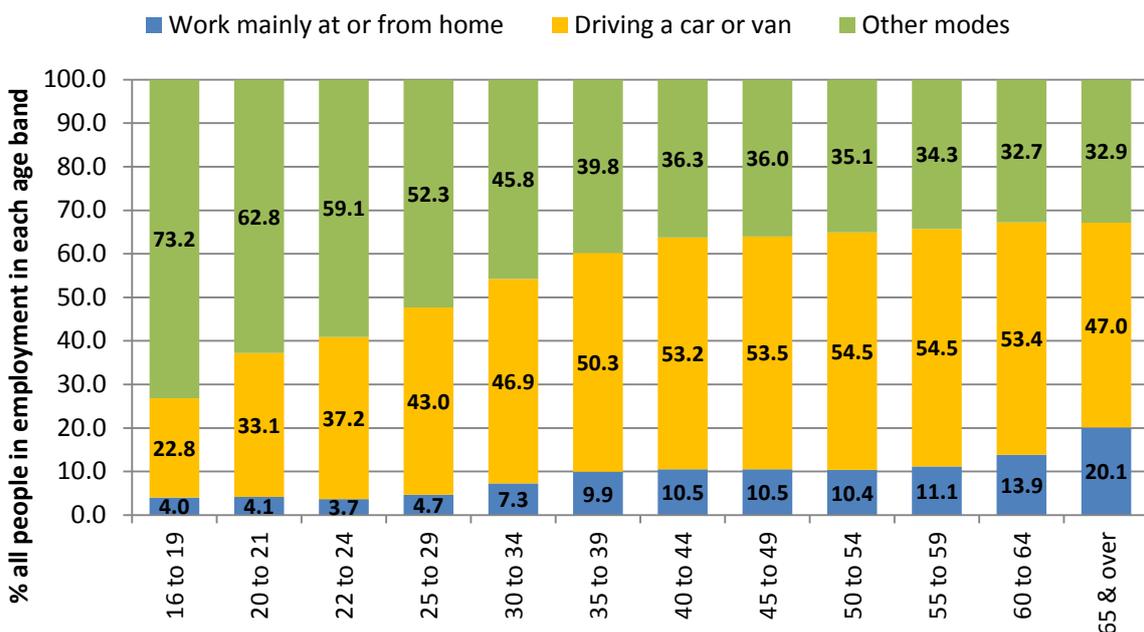
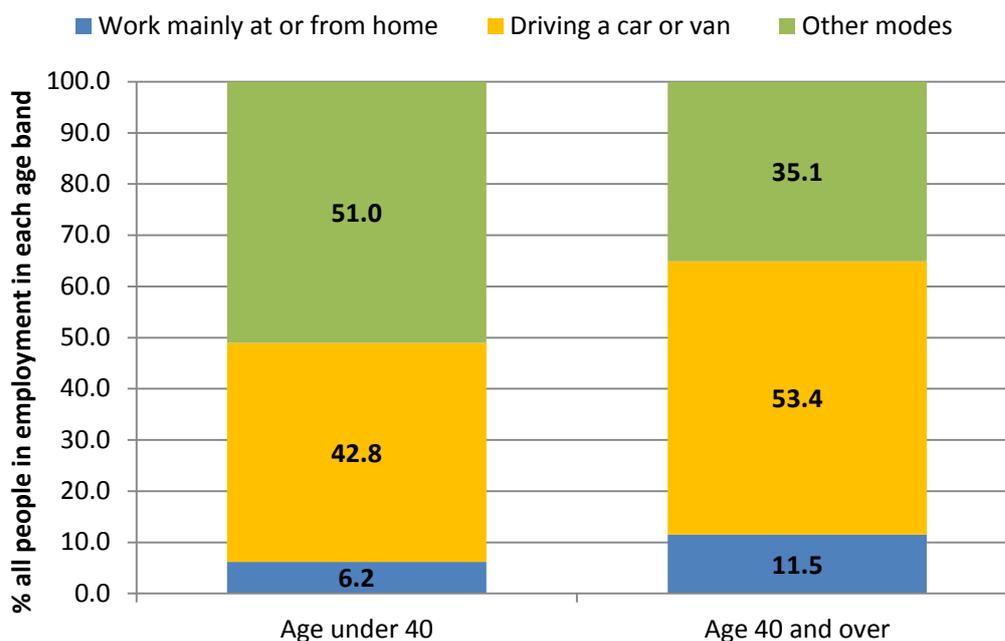


Figure 7: Proportion of people in employment by aged under 40 and over 40 by mode of travel to work



2.5 Mode of commuting to work differs significantly across age bands - Figure 6 illustrates the modes used by different age bands in order to get to work in 2011. For those aged under 35, people are choosing to get to work by healthier and more sustainable modes of transport, with those driving to work by car now being in the minority.

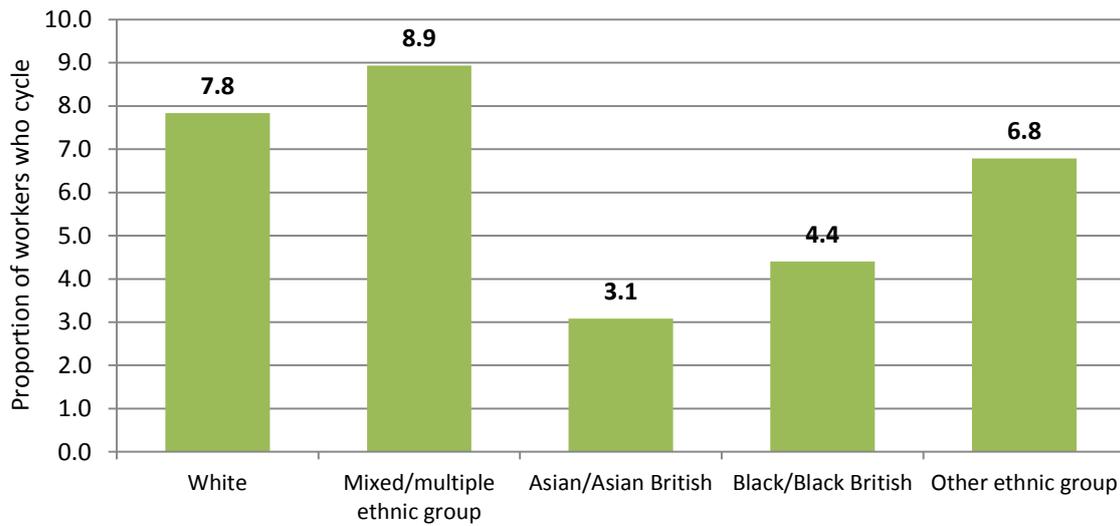
2.6 There is now a clear split in the mode of travel used to commute to work by those people aged under 40 and those aged 40 and over (see Figure 7). The majority (57%) of people in employment aged under 40 years do not drive to work. In the three years since the 2011 Census, commuters will be three years older. Cycling counts have continued to increase.

2.7 Since 2001, all age groups saw an increase in the proportion of the workforce who cycle to work. The largest increase was in the 30-34 year olds which increased by more than 4 percentage points, from 5.8% of people in employment in this age group cycling to work in 2001 to 9.9% of people in employment in 2011.

Ethnic group

2.8 Workers who are White or with Mixed/Multiple ethnic groups are most likely to cycle to work – 7.8% and 8.9% respectively. The lowest rates of cycling are amongst the Asian/Asian British ethnic groups where just 3.1% of people cycle to work.

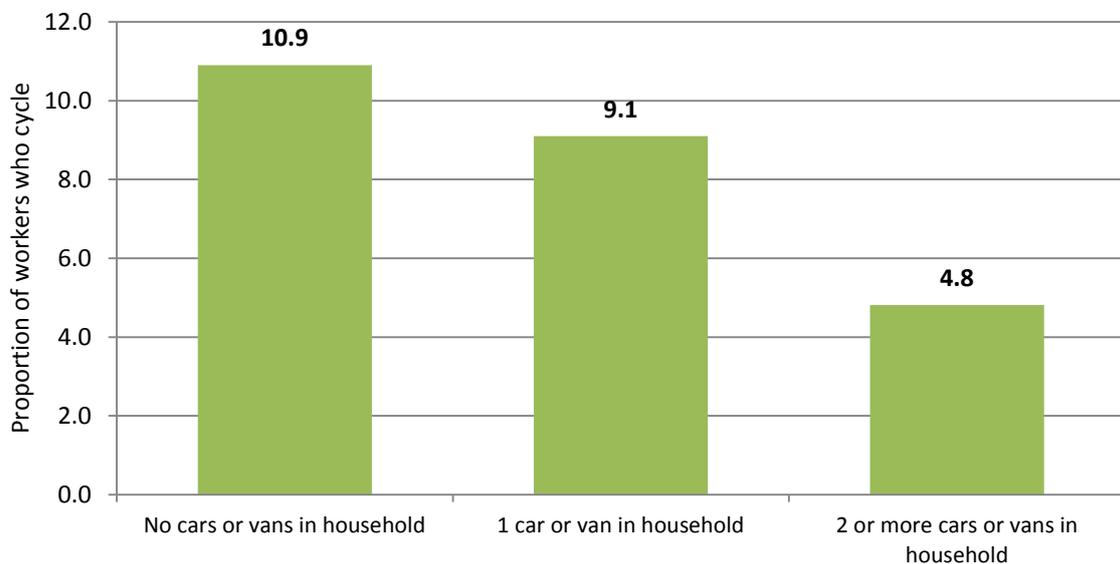
Figure 8: Proportion of people in employment who cycle to work by ethnic group



Car availability

2.9 Workers without access to a car are the most likely to cycle to work (10.9%), although 9.1% of people with access to one car cycle to work, whilst just 4.8% of people with access to two or more cars cycle to work.

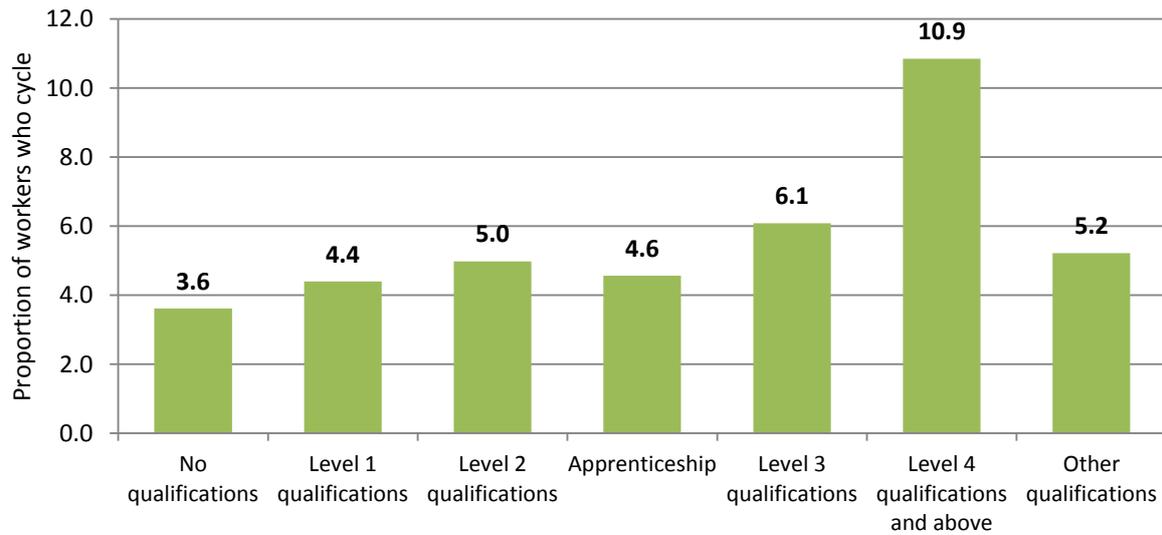
Figure 9: Proportion of people in employment who cycle to work by car availability



Qualifications

2.10 People with a degree or higher are the most likely to cycle to work (10.9%) compared to people with no qualifications (3.6%).

Figure 10: Proportion of people in employment who cycle to work by qualification

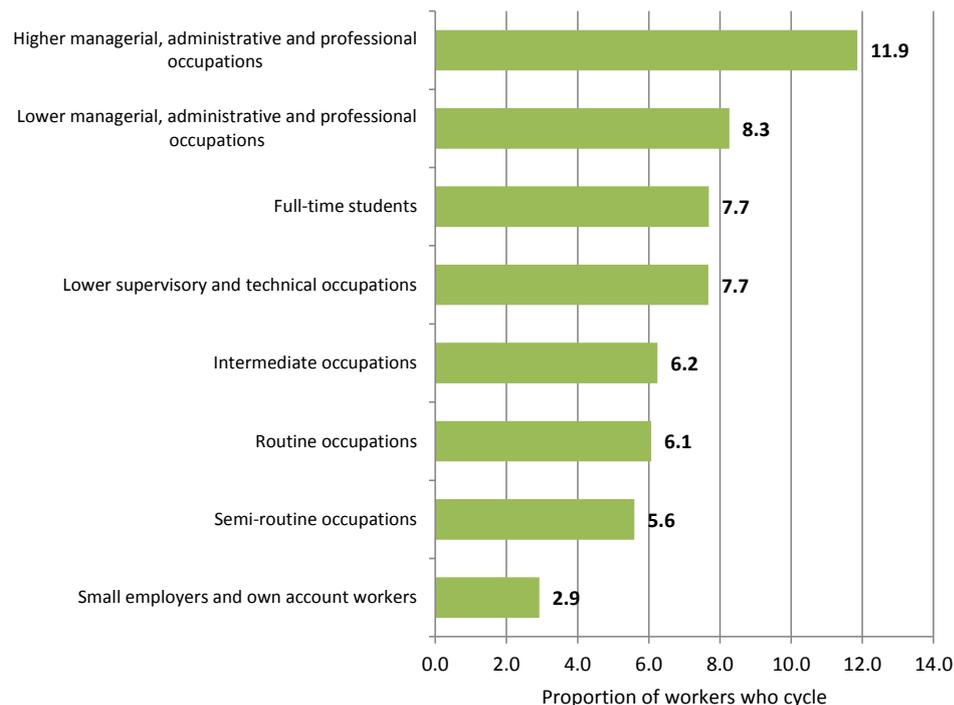


Occupation and employment

2.11 Cycling is most common among those people in higher managerial, administrative and professional occupations where 11.9% of all workers cycle to work. Cycling is lowest amongst small employers and own account workers (2.9%) and people in semi-routine (5.6%) and routine occupations (6.1).

2.12 Full time workers are more likely to cycle to work (8.3%) than part time workers (5.6%).

Figure 11: Proportion of people in employment who cycle to work by socio-economic classification



Distance Travelled to Work

2.13 The most popular distances for cycling to work are between 2km and 5km (12.4% of all workers cycle), less than 2km (8.2% of all workers cycle) and between 5km and 10km (6.7% of all workers cycle).

Figure 12: Proportion of people in employment who cycle to work by distance travelled

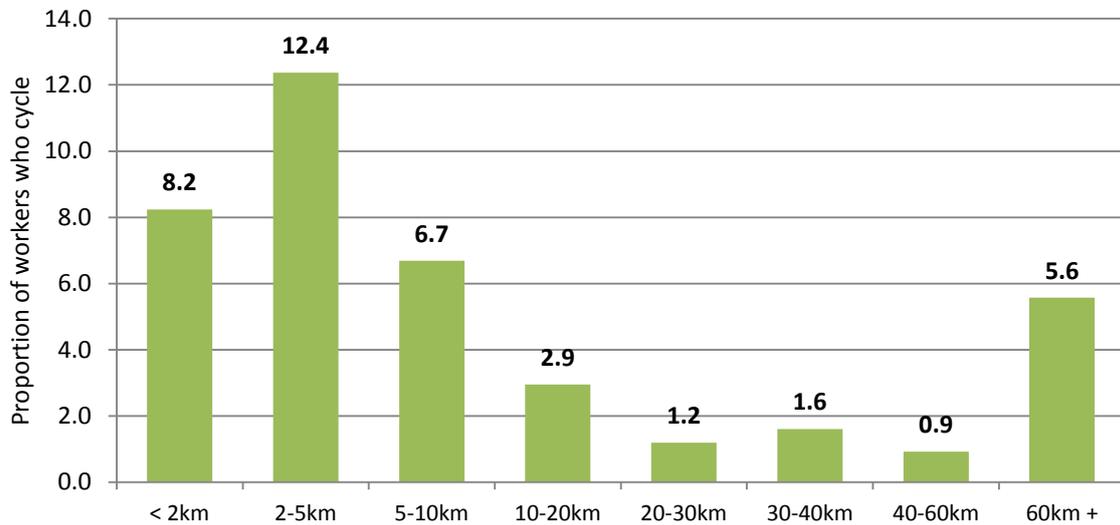
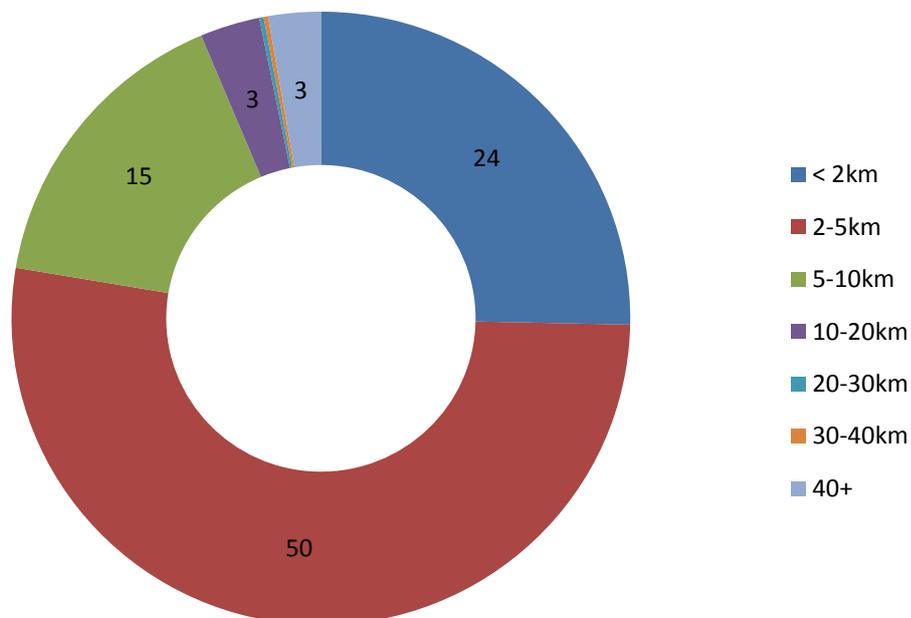


Figure 13: Percentage of all cyclists shown by the distance they commute to work

For some people commuting much longer distances their journey might be made up of several different modes of transport including cycling.



2.14 Looking at distance commuted by car, almost 44,000 people drive less than 5km to work and 13,000 of these are driving for less than 2km - this demonstrates the potential for further modal shift away from commuting by car.

3.0 Where Bristol resident cycle commuters live

3.1 In 2011, more than a thousand cyclists commuted to work from both Ashley and Bishopston and every ward in the city had at least 100 cyclists commuting to work.

3.2 Figure 14 shows the distribution of people who cycle to work by ward across the city. The highest rates of cycling to work are in the wards that border the central area of Bristol. Wards where more than 10% of people in employment cycle to work include Ashley (16%), Bishopston (14.9%), Easton (14.6%), Redland (13.3%), Henleaze (10.6%) and Cotham (10.2%) in the north and east of the central area, together with Southville (12.2%) and Windmill Hill (10.6%) south of the central area. On average in Bristol, 7.7% of people in employment cycle to work.

3.3 The largest percentage point increase in the proportion of people in employment who cycle to work over the last twenty year period has been in Bishopston ward. There has been a 10 percentage point increase from 4.5% in 1991, 8.1 in 2001 and 14.5% in 2011.

3.4 In addition to Bishopston, four other wards saw a large percentage point increase of more than 8 percentage points between 1991 and 2011 including Easton (+9.1 percentage points), Southville (+8.9 percentage points), Ashley (+8.8 percentage points) and Redland (+8.2 percentage points). Wards with the largest percentage point increases in the proportion of people in employment who cycled to work between 1991 and 2011 are shown in Figure 15.

3.5 In the more peripheral areas of Bristol, the proportion of people in employment varies across different parts of the city. More people commute to work by bicycle from peripheral wards in the north east of the city, with 6-8% of all people in employment cycling to work, compared to 4-5% in the peripheral north/north west and 2-3% in the peripheral south of the city. Of all the peripheral wards, Horfield has the highest levels of commuting by bicycle at 8.5% of all people in employment.

4.0 Conclusion

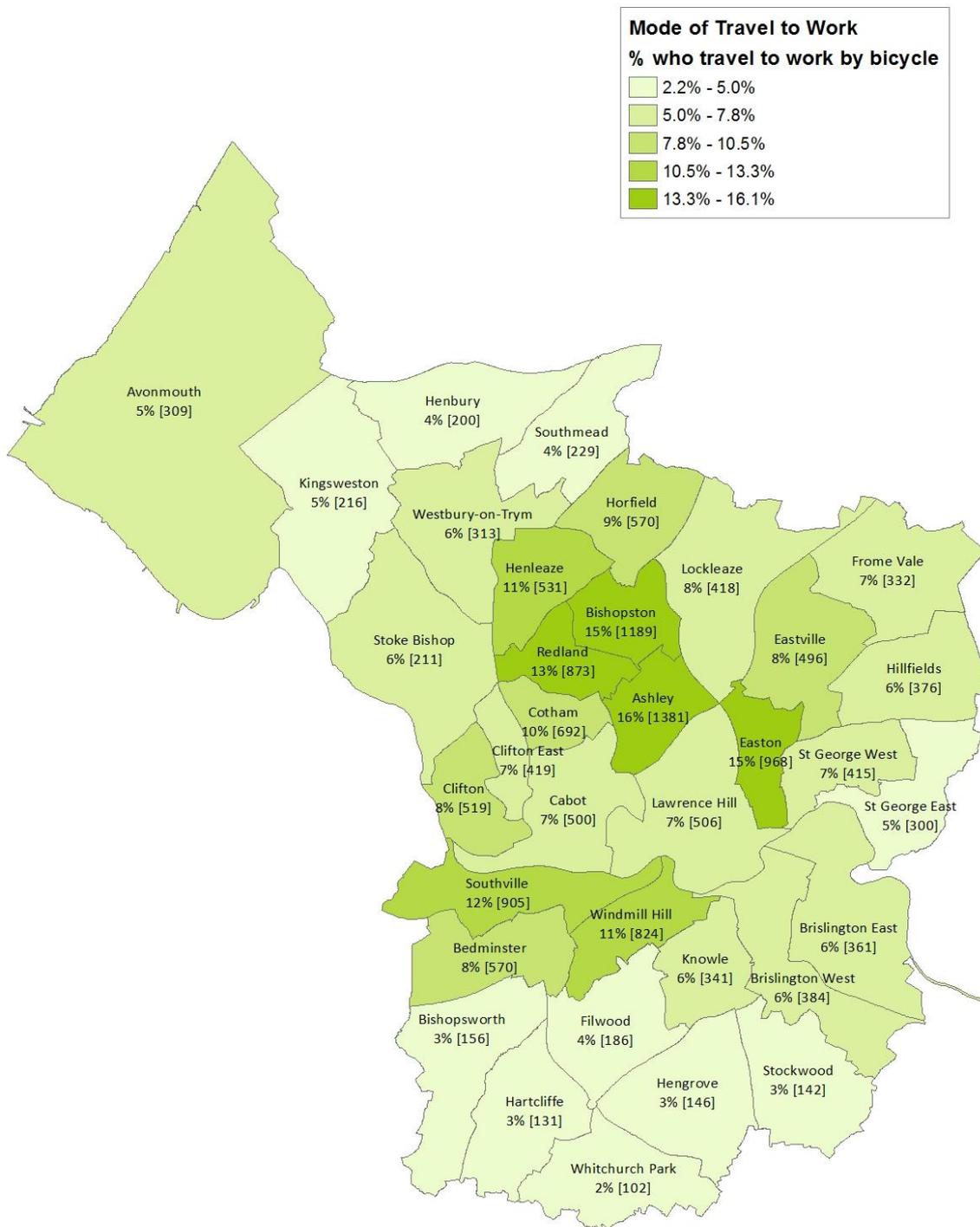
4.1 Based on 2011 Census data, a typical person who cycles to work in Bristol is likely to be a white male, aged between 25 and 39, with a degree, who works full time in a professional occupation and who cycles to their workplace which is between 2km and 5km away.

Jayne Mills
Performance, Information and Intelligence
Bristol City Council
Email: Jayne.mills@bristol.gov.uk
Tel: 0117 90 36873

July 2014 (v2)

Figure 14: People who commute to work by bicycle (from place of residence)

Note: Map shows the percentage of all workers who commute by bicycle and in brackets the number of people who commute by bicycle.



**Figure 15: People aged 16 - 74 in employment who usually travel to work by bicycle
Shown as a % of all people in employment based on using 2001 definitions**

Note: these statistics are based on the 2001 definition of mode of travel in order to make comparisons over time. The numbers and % may differ slightly from published 2011 Census statistics elsewhere in this report.

Ward	1991		2001		2011		1991-2011
	number	%	number	%	number	%	Percentage point change
Bishopston	230	4.5	511	8.1	1,158	14.5	10.0
Easton	250	5.0	425	8.4	934	14.1	9.1
Southville	130	3.0	433	8.3	885	11.9	8.9
Ashley	290	6.5	593	10.9	1,319	15.3	8.8
Redland	230	4.8	375	6.7	853	13.0	8.2
Windmill Hill	160	3.1	427	7.3	796	10.3	7.2
Henleaze	210	4.6	238	4.7	517	10.4	5.8
Clifton East	80	2.3	193	3.8	411	6.8	4.6
Horfield	180	3.8	233	4.5	553	8.3	4.5
Eastville	180	3.5	279	5.2	480	7.9	4.4
Cotham	260	5.5	323	5.4	667	9.9	4.3
Lockleaze	140	3.3	198	4.4	412	7.6	4.3
Lawrence Hill	90	2.5	190	4.9	487	6.6	4.0
Clifton	150	3.8	272	5.1	500	7.8	4.0
Cabot	80	2.6	170	3.8	488	6.5	3.9
Stoke Bishop	60	1.8	104	2.8	205	5.5	3.7
Bedminster	220	4.2	266	4.9	560	7.8	3.6
Brislington West	120	2.6	172	3.1	380	6.0	3.5
Westbury-on-Trym	130	2.9	162	3.5	307	6.1	3.2
Avonmouth	100	2.1	243	4.4	306	5.1	2.9
Knowle	140	3.0	155	3.0	329	5.9	2.9
St. George West	180	4.1	208	4.0	408	6.9	2.8
Hillfields	180	3.4	251	4.6	369	5.9	2.4
Frome Vale	160	4.0	212	4.6	324	6.4	2.4
Brislington East	160	3.5	175	3.0	351	5.7	2.2
St. George East	140	2.6	195	3.3	296	4.5	1.9
Kingsweston	130	3.1	177	4.1	214	4.8	1.8
Filwood	100	2.3	123	3.0	185	4.0	1.7
Stockwood	50	1.0	86	1.7	135	2.7	1.7
Henbury	110	2.5	125	3.2	196	4.1	1.6
Bishopsworth	70	1.4	108	2.2	151	2.9	1.5
Hartcliffe	100	2.1	99	2.2	127	2.7	0.6
Hengrove	140	2.4	132	2.4	142	2.6	0.1
Whitchurch Park	110	2.4	92	1.9	98	2.2	-0.2
Southmead	220	5.0	163	3.6	225	4.4	-0.6
Bristol	5,280	3.3	8,108	4.6	15,768	7.5	4.2

Appendix: Method of travel to work (2001 specification) BRISTOL resident workforce

ONS Crown Copyright Reserved [from Nomis on 26 March 2014]

	All modes	Work mainly at or from home	Train, underground or metro	Bus, minibus or coach	Driving a car or van	Passenger in a car or van	Bicycle	%Bicycle	On foot	All other modes
All usual residents aged 16 and over in employment	210,925	18,044	4,209	19,931	100,080	10,080	15,797	7.5	38,973	3,811
Males	111,287	10,542	2,504	7,275	55,137	4,484	11,172	10.0	17,158	3,015
Females	99,638	7,502	1,705	12,656	44,943	5,596	4,625	4.6	21,815	796
Age										
Age 16 to 19	7,170	287	70	1,556	1,635	1,143	426	5.9	1,843	210
Age 20 to 21	7,934	329	123	1,314	2,624	637	484	6.1	2,307	116
Age 22 to 24	16,267	602	406	2,154	6,056	927	1,317	8.1	4,598	207
Age 25 to 29	32,727	1,540	903	3,210	14,061	1,580	2,888	8.8	8,113	432
Age 30 to 34	29,846	2,176	819	2,399	14,004	1,208	2,964	9.9	5,812	464
Age 35 to 39	24,282	2,413	532	1,752	12,211	852	2,246	9.2	3,803	473
Age 40 to 44	22,457	2,364	430	1,549	11,951	746	1,843	8.2	3,106	468
Age 45 to 49	21,671	2,286	353	1,619	11,584	770	1,585	7.3	2,990	484
Age 50 to 54	18,331	1,906	234	1,548	9,993	773	1,010	5.5	2,503	364
Age 55 to 59	14,681	1,636	195	1,270	8,008	648	616	4.2	1,998	310
Age 60 to 64	9,999	1,386	102	1,006	5,339	491	282	2.8	1,205	188
Age 65 and over	5,560	1,119	42	554	2,614	305	136	2.4	695	95
Ethnic group										
White: Total	186,011	15,867	3,702	15,972	89,790	8,855	14,573	7.8	33,990	3,262
White British	169,560	14,602	3,301	13,962	83,610	7,822	13,057	7.7	30,204	3,002
White Irish	2,052	209	64	201	797	86	204	9.9	457	34
White Other	14,399	1,056	337	1,809	5,383	947	1,312	9.1	3,329	226
Mixed/multiple ethnic group	4,980	403	96	638	1,963	211	445	8.9	1,142	82
Asian/Asian British	10,036	967	212	1,386	4,264	678	309	3.1	1,984	236
Black/African/Caribbean/Black British	8,468	671	172	1,757	3,466	276	373	4.4	1,567	186
Other ethnic group	1,430	136	27	178	597	60	97	6.8	290	45
Car availability										
All categories: Car or van availability	209,772	17,809	4,186	19,742	99,931	10,036	15,741	7.5	38,533	3,794
No cars or vans in household	30,153	2,062	1,057	6,919	3,588	1,320	3,289	10.9	11,208	710
1 car or van in household	88,756	7,236	1,997	8,399	38,598	5,028	8,080	9.1	17,584	1,834
2 or more cars or vans in household	90,863	8,511	1,132	4,424	57,745	3,688	4,372	4.8	9,741	1,250
Qualifications										
No qualifications	18,987	1,478	85	2,304	9,113	1,557	686	3.6	3,237	527
Level 1 qualifications	25,866	1,819	202	2,978	13,342	1,715	1,139	4.4	4,078	593
Level 2 qualifications	28,593	2,046	306	3,457	14,107	1,879	1,425	5.0	4,844	529
Apprenticeship	6,069	600	28	297	3,946	352	277	4.6	399	170
Level 3 qualifications	29,903	2,293	467	3,078	14,087	1,310	1,821	6.1	6,343	504
Level 4 qualifications and above	91,400	9,043	3,006	6,413	40,944	2,539	9,921	10.9	18,285	1,249
Other qualifications	10,107	765	115	1,404	4,541	728	528	5.2	1,787	239

	All modes	Work mainly at or from home	Train, underground or metro	Bus, minibus or coach	Driving a car or van	Passenger in a car or van	Bicycle	%Bicycle	On foot	All other modes
Socio-economic classification										
1. Higher managerial, administrative and professional occupations	35,210	3,107	1,410	1,967	16,374	825	4,177	11.9	6,838	512
1.1 Large employers and higher managerial and administrative occupation	4,868	356	151	221	2,858	120	435	8.9	660	67
1.2 Higher professional occupations	30,342	2,751	1,259	1,746	13,516	705	3,742	12.3	6,178	445
2. Lower managerial, administrative and professional occupations	54,418	5,310	1,440	4,055	27,145	1,806	4,495	8.3	9,396	771
3. Intermediate occupations	28,193	1,139	490	4,087	12,910	1,410	1,761	6.2	6,024	372
4. Small employers and own account workers	18,347	5,739	153	452	9,056	717	537	2.9	1,137	556
5. Lower supervisory and technical occupations	14,196	487	129	1,110	8,056	789	1,089	7.7	2,153	383
6. Semi-routine occupations	28,130	915	236	4,010	13,007	1,856	1,574	5.6	6,030	502
7. Routine occupations	20,343	596	129	2,158	10,489	1,799	1,235	6.1	3,423	514
L15 Full-time students	12,088	751	222	2,092	3,043	878	929	7.7	3,972	201
Hours worked										
Part-time: 30 hours or less worked	61,632	6,853	801	7,889	24,913	3,241	3,473	5.6	13,606	856
Full-time: 31 or more hours worked	149,293	11,191	3,408	12,042	75,167	6,839	12,324	8.3	25,367	2,955
Industry										
A, B, D, E Agriculture, energy and water	2,577	182	32	66	1,739	179	145	5.6	157	77
C Manufacturing	13,701	995	136	539	8,557	778	1,152	8.4	1,182	362
F Construction	13,933	1,754	109	410	9,192	1,178	482	3.5	624	184
G Wholesale and retail trade; repair of motor vehicles and motor cycles	30,639	1,782	338	3,798	14,447	1,900	1,662	5.4	6,197	515
H Transport and storage	9,127	519	150	670	5,851	360	435	4.8	595	547
I Accommodation and food service activities	12,361	1,032	129	1,813	3,747	628	924	7.5	3,872	216
J Information and communication	11,112	2,046	512	780	4,101	257	1,217	11.0	2,021	178
K Financial and insurance activities	12,677	564	310	1,908	4,816	580	926	7.3	3,390	183
L Real estate activities	2,709	396	45	166	1,502	66	108	4.0	407	19
M Professional, scientific and technical activities	17,681	2,570	663	1,390	6,138	481	1,863	10.5	4,323	253
N Administrative and support service activities	11,057	958	139	1,392	4,847	710	704	6.4	2,090	217
O Public administration and defence; compulsory social security	11,459	466	487	1,135	5,604	452	1,280	11.2	1,769	266
P Education	22,894	1,497	608	1,514	10,933	822	1,996	8.7	5,237	287
Q Human health and social work activities	29,441	1,672	307	3,480	14,905	1,307	2,174	7.4	5,253	343
R, S, T, U Other	9,557	1,611	244	870	3,701	382	729	7.6	1,856	164
Occupation										
1. Managers, directors and senior officials	18,195	2,645	447	974	9,523	505	1,124	6.2	2,737	240
2. Professional occupations	47,657	4,091	1,656	2,878	22,995	1,357	5,393	11.3	8,638	649
3. Associate professional and technical occupations	28,762	4,150	843	2,124	12,346	781	2,580	9.0	5,436	502
4. Administrative and secretarial occupations	23,411	1,327	438	3,386	10,383	1,237	1,324	5.7	5,052	264
5. Skilled trades occupations	20,219	2,144	152	859	12,340	1,364	1,237	6.1	1,662	461
6. Caring, leisure and other service occupations	17,999	1,313	201	2,360	8,436	852	864	4.8	3,714	259
7. Sales and customer service occupations	18,383	627	200	3,472	6,528	1,223	983	5.3	5,106	244
8. Process, plant and machine operatives	12,191	681	72	524	8,139	668	647	5.3	790	670
9. Elementary occupations	24,108	1,066	200	3,354	9,390	2,093	1,645	6.8	5,838	522

	All modes	Work mainly at or from home	Train, underground or metro	Bus, minibus or coach	Driving a car or van	Passenger in a car or van	Bicycle	%Bicycle	On foot	All other modes
Distance travelled										
Less than 2km	46,027	0	206	1,865	13,204	1,576	3,789	8.2	24,954	433
2km to less than 5km	63,252	0	590	9,582	30,664	3,828	7,825	12.4	9,635	1,128
5km to less than 10km	35,893	0	554	5,597	23,092	1,998	2,399	6.7	1,478	775
10km to less than 20km	15,898	0	792	1,025	11,906	815	468	2.9	521	371
20km to less than 30km	2,950	0	167	83	2,388	173	35	1.2	62	42
30km to less than 40km	2,117	0	184	46	1,632	137	34	1.6	60	24
40km to less than 60km	2,813	0	404	40	2,127	116	26	0.9	74	26
60km and over	6,874	0	857	497	3,891	269	383	5.6	826	151
Work mainly at or from home	18,044	18,044	0	0	0	0	0	0.0	0	0
Other	17,057	0	455	1,196	11,176	1,168	838	4.9	1,363	861