



# 2011 Census Topic Report

*Who walks to work?  
November 2014*



# **Who walks to work?**

## **Characteristics of people in Bristol who commute to work on foot**

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# Who walks to work?

## Characteristics of people in Bristol who commute to work on foot

### Headlines

- More people in Bristol commute to work on foot or by bicycle than in any other Local Authority in England and Wales.
- Almost a fifth (19.3%) of Bristol residents walk to work.
- Walking to work has increased by 40% between 2001 and 2011.
- The proportion of people who walk to work in Bristol is higher than all the other Core Cities in England. In terms of numbers, only two local authorities - Birmingham and Leeds - have a higher number of people who walk to work.
- A typical person who walks to work in Bristol is likely to be aged under 30, working in a semi-routine or intermediate occupation and walks to their workplace less than 2km away.
- More women than men commute to work on foot in Bristol (21.9% of female workers compared to 15.4% of male workers).
- Although walking to work does not vary greatly between different ethnic groups, people who are White have slightly lower proportions than other ethnic groups.
- The proportion of people who walk to work does not vary greatly between those with no qualifications and those with a degree or higher.
- 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.
- More than 2,000 people walk to work from wards closest to the city centre and every ward in the city has over 300 people walking to work.

### 1.0 Introduction

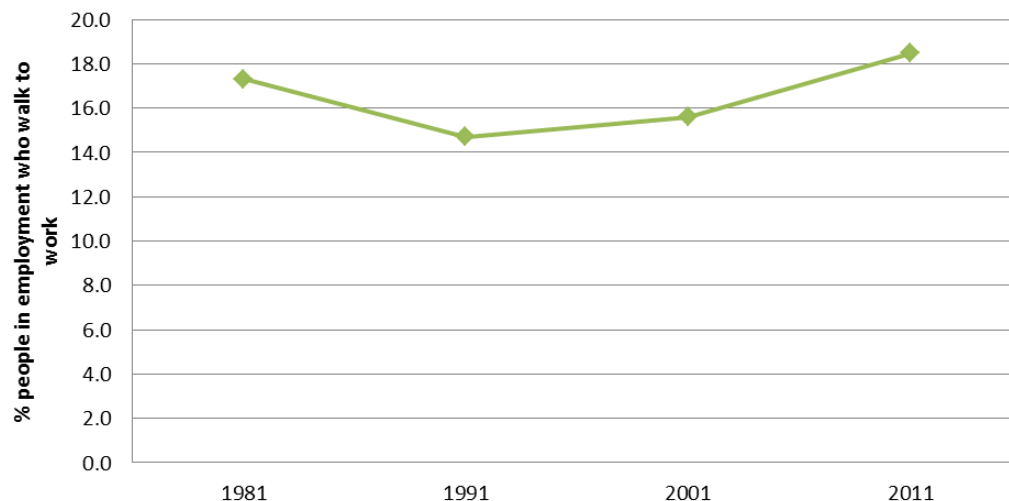
1.1 Research in workplaces in Bristol, using accelerometers and GPS monitors to objectively measure physical activity, has shown that walking during the journey to and from work is predominantly moderate physical activity. Therefore, regular walking to work is a means by which adults can meet the government guidelines of 150 minutes moderate to vigorous physical activity (MVPA) per week in bouts of at least 10 minutes<sup>1</sup>.

1.2 Walking as a means of travelling to work in Bristol has been steadily increasing since 1991 when 14.7% of people walked to work compared to 18.5% in 2011 (see Figure 1).

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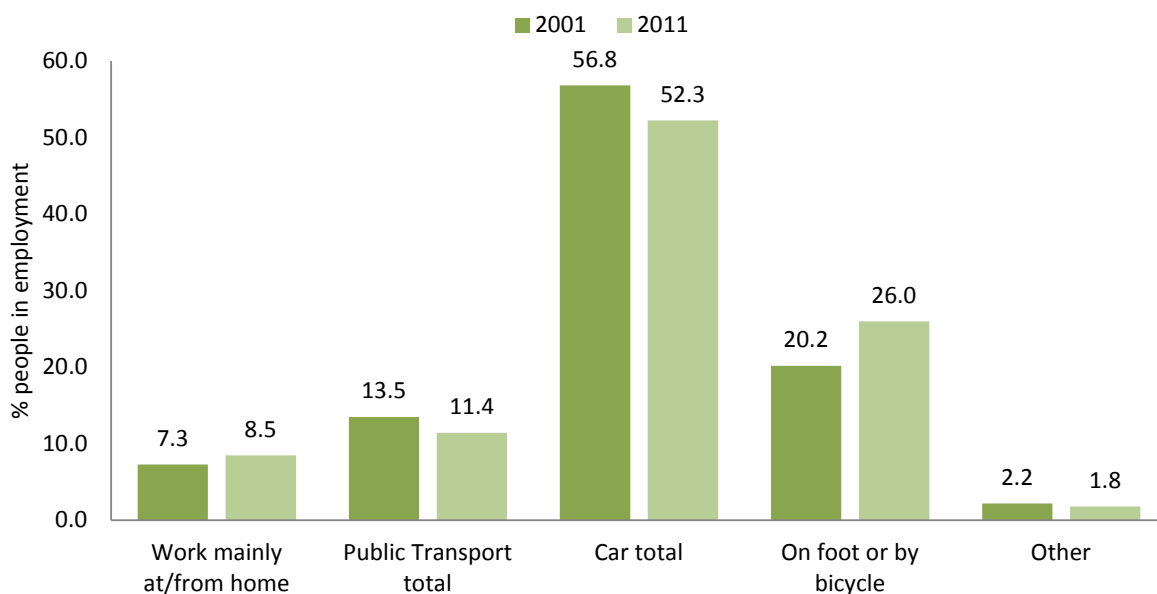
<sup>1</sup> **Audrey S**, Procter S, Cooper AR. The contribution of walking to work to adult physical activity levels: a cross sectional study. *International Journal of Behavioural Nutrition and Physical Activity*, 2014, 11:37. doi:10.1186/1479-5868-11-37

**Figure 1: Proportion of people in employment who walk to work 1981 to 2011**



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 walking or cycling (see Figure 2).

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

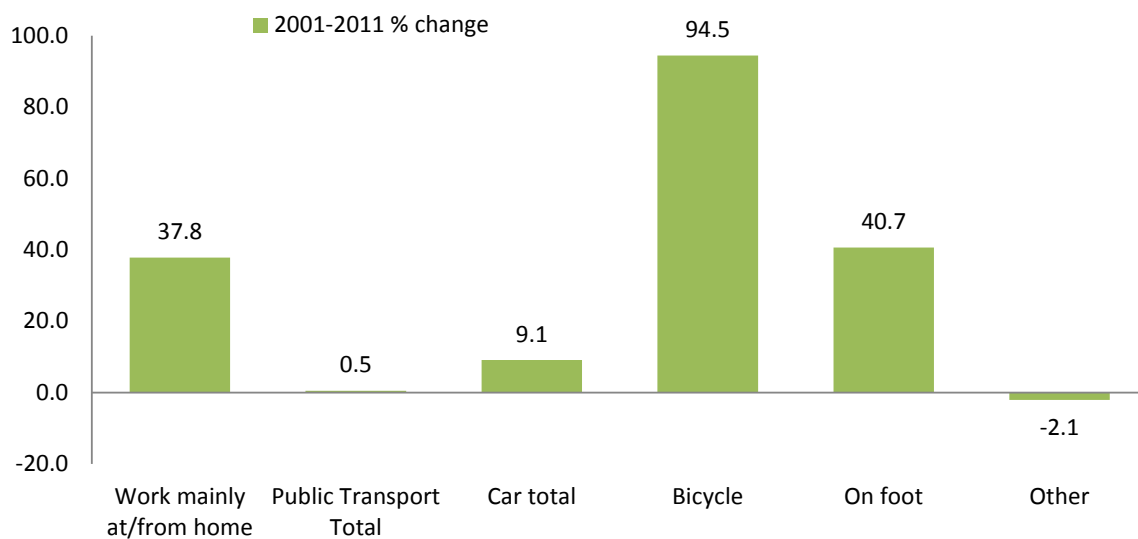


1.4 A total of 40,468 (19.3%) of Bristol residents commute to work on foot - a 40% increase since 2001. The proportion of people who walk to work is higher than all the other Core Cities in England. In terms of numbers, only two local authorities - Birmingham and Leeds - have a higher number of people who walk to work. More people in Bristol now commute to work on foot or by bicycle than in any other Local Authority in England and Wales.

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 walk or cycle 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.

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



## 2.0 Characteristics of people who walk to work

2.1 Characteristics of people who walk 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 women than men commute to work on foot in Bristol. 56% (21,815) of people walking to work are women and 44% (17,158) are men. Of all people in employment, 21.9% of female workers walk to work compared to 15.4% of male workers.

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

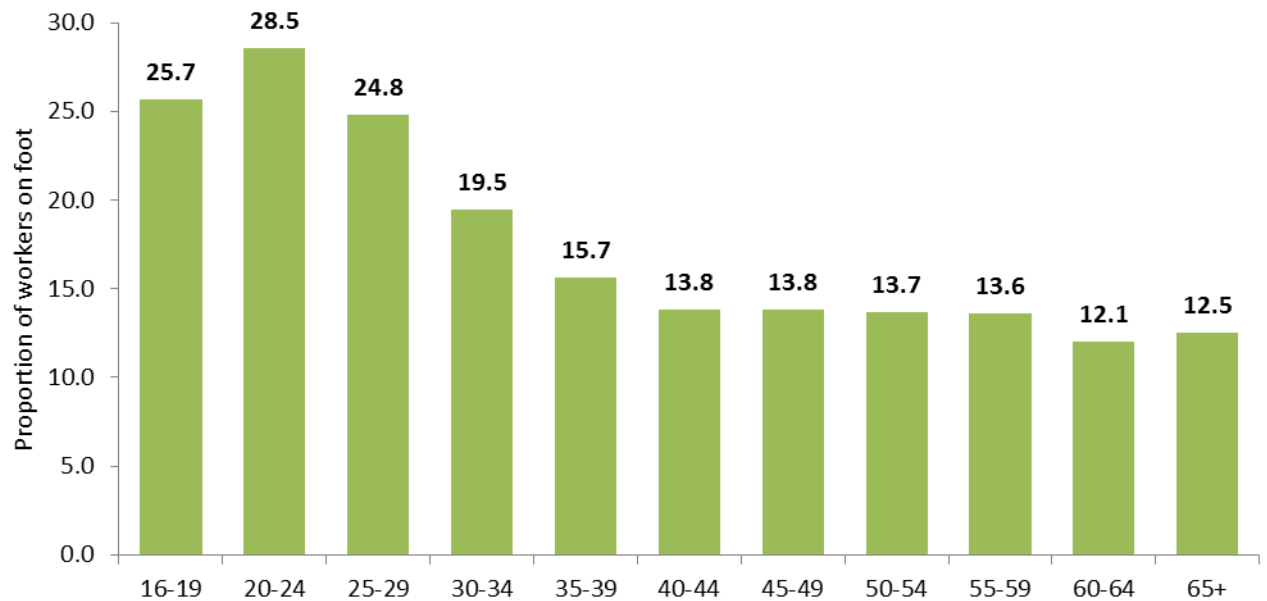


2.3 Since 2001, both the proportions of males and the proportion of females that walk to work have increased – males up from 12.1% to 15.4% of males in employment and females up from 19.6% to 21.9% of females in employment. As a result, the balance between male and females who walk to work continues to be slightly higher for females but the gap has closed since 2001.

### Age

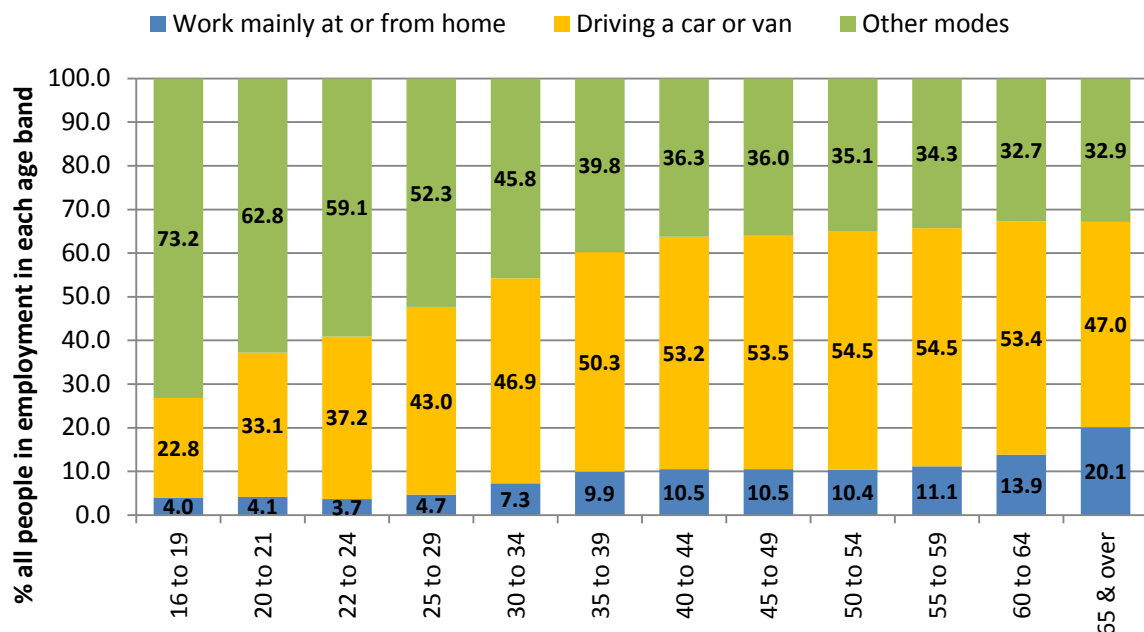
2.4 Walking to work is most common amongst those aged 20 to 24 with 28.5% of workers in this age group walking to work. Up to 40 years of age, the rate of walking to work is above 15% for all age groups, for older age groups it is less than 15% but never below 12% (see Figure 5).

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

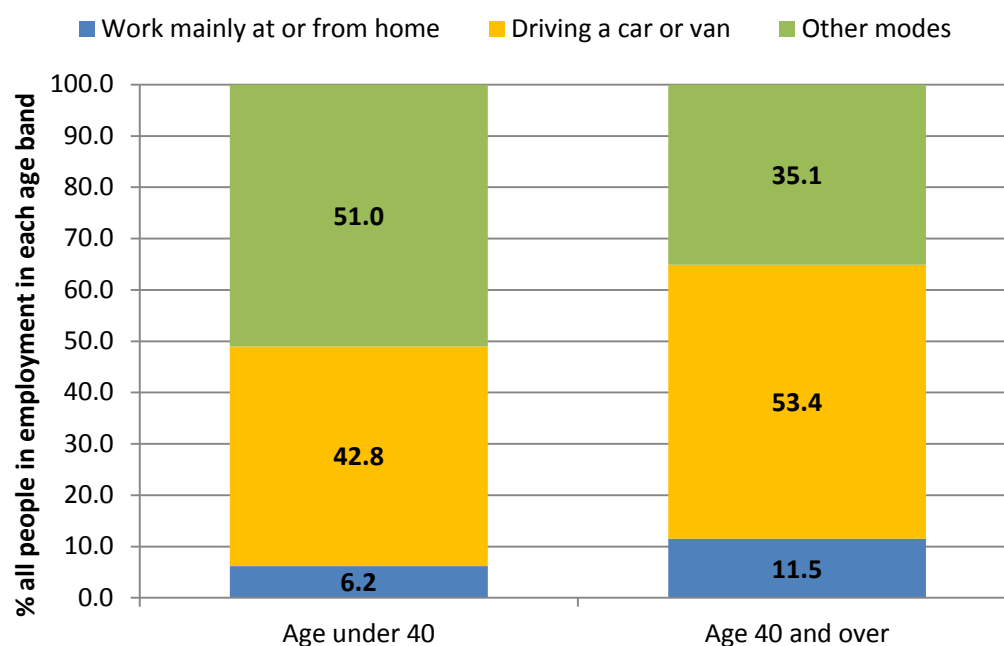


2.5 Mode of commuting to work differs significantly across age bands - Figure 6 illustrates the modes used by different age bands in order to get to work in 2011. For those aged under 35, people are choosing to get to work by healthier and more sustainable modes of transport, with those driving to work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

**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**



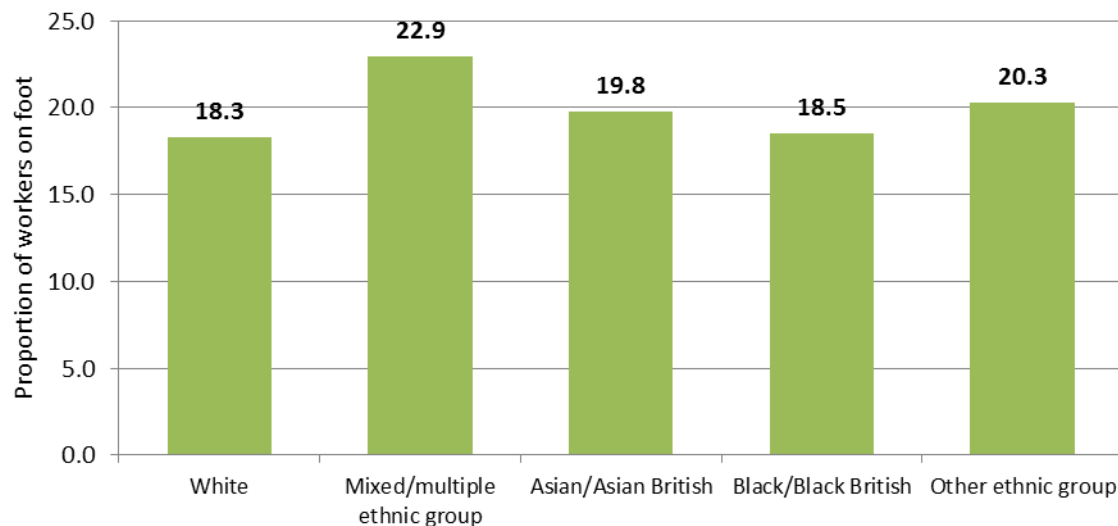
2.6 There is now a clear split in the mode of travel used to commute to work by those people aged under 40 and those aged 40 and over (see Figure 7). The majority (57%) of people in employment aged under 40 years do not drive to work. In the three years since the 2011 Census, commuters will be three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

2.7 Since 2001, all age groups with the exception of those people aged 60 and over saw an increase in the proportion of the workforce who walk to work. The largest increase was in the 25-29 year olds which increased by more than 6 percentage points, from 18.6% of people in employment in this age group walking to work in 2001 to 24.8% of people in 2011.

## **Ethnic group**

2.8 Walking to work does not vary greatly between different ethnic groups, although people who are White have slightly lower proportions of people walking to work (18.3%) than other ethnic groups.

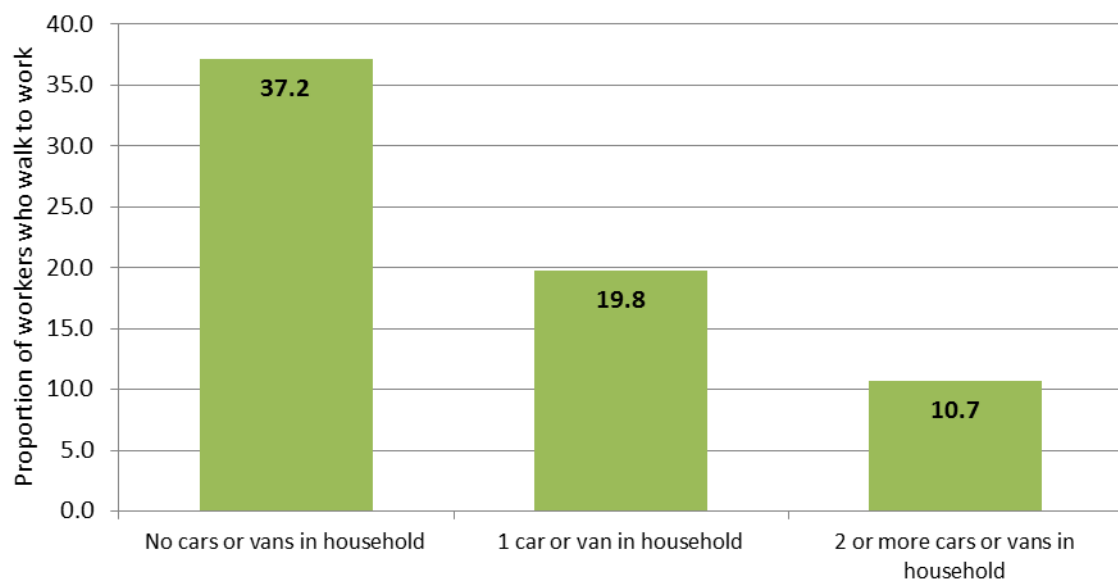
**Figure 8: Proportion of people in employment who walk to work by ethnic group**



### **Car availability**

2.9 Workers without access to a car are the most likely to walk to work (37.2%), although 19.8% of workers with access to one car walk to work, whilst just 10.7% of workers with access to two or more cars walk to work.

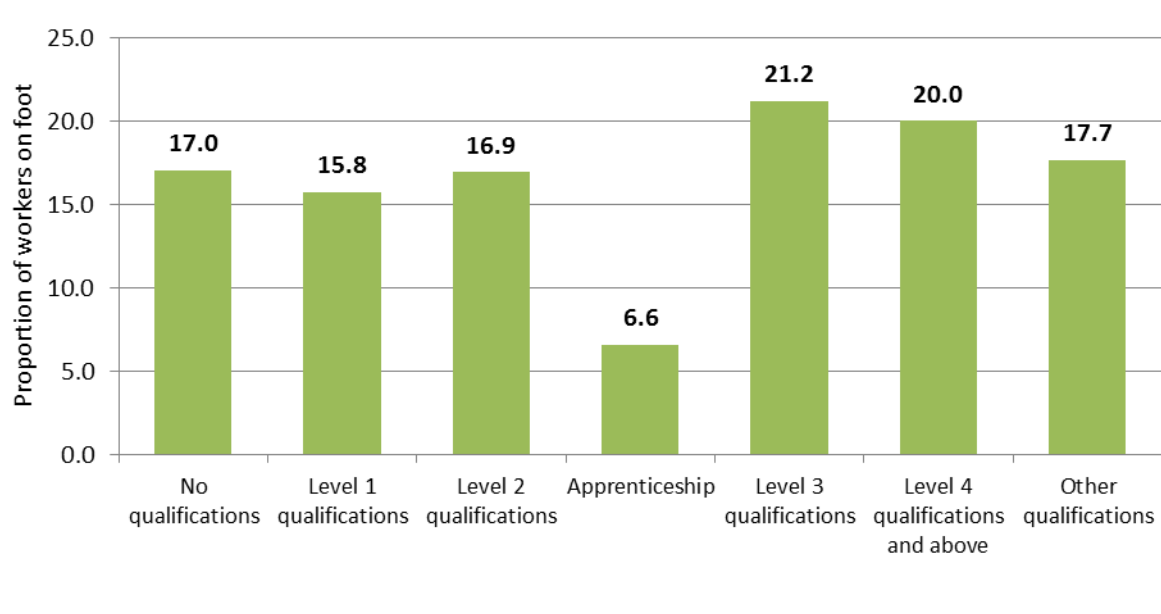
**Figure 9: Proportion of people in employment who walk to work by car availability**



## Qualifications

2.10 The proportion of people who walk to work does not vary greatly between those with no qualifications and those with a degree or higher.

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

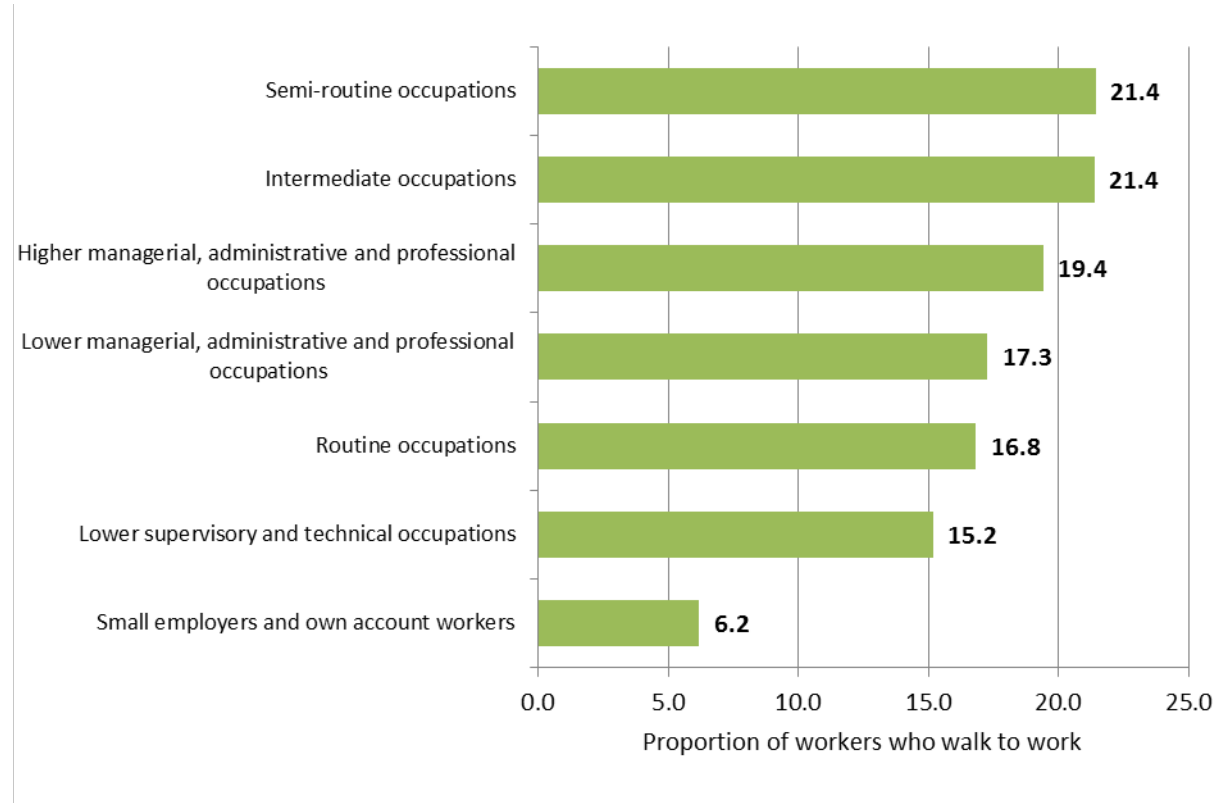


## Occupation and employment

2.11 Walking to work is most common among those people in semi-routine and intermediate occupations where 21.4% of all workers walk to work. Walking is lowest amongst small employers and own account workers (6.2%).

2.12 Part time workers are more likely to walk to work (22.1%) than full time workers (17.0%).

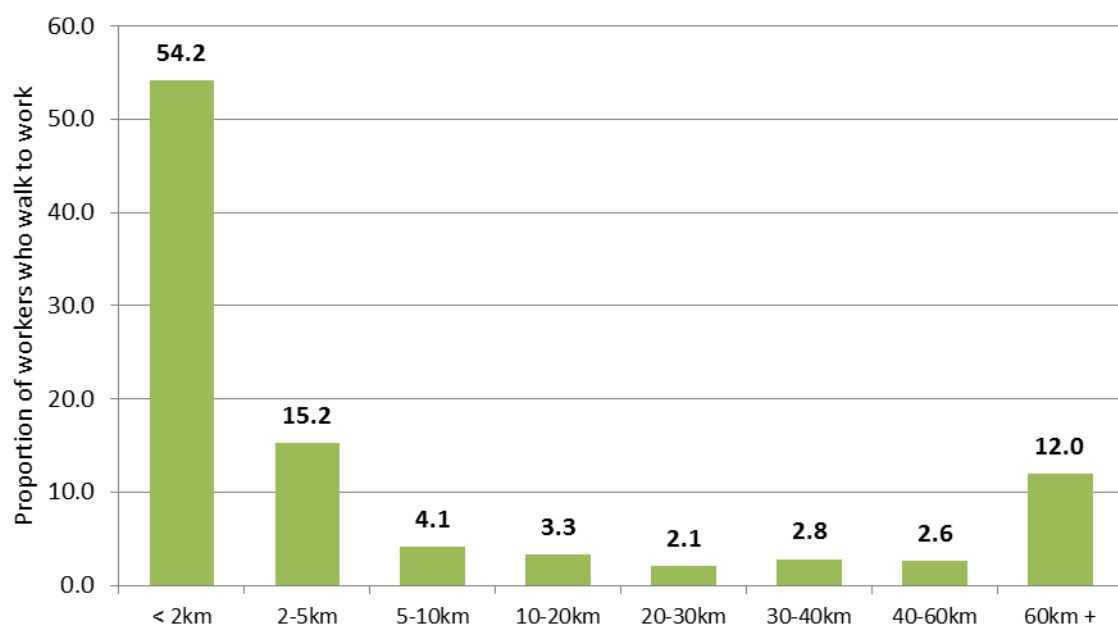
**Figure 11: Proportion of people in employment who walk to work by socio-economic classification**



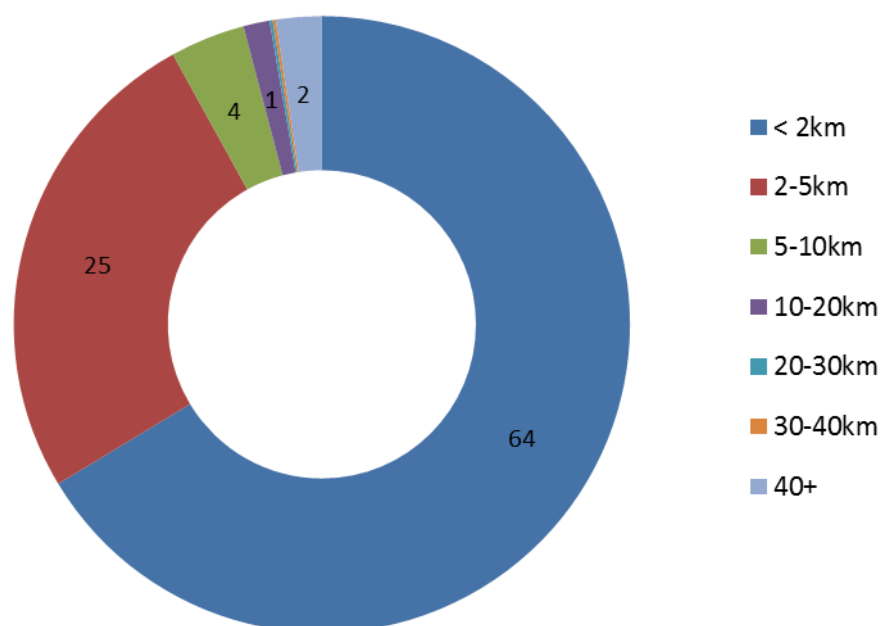
### Distance Travelled to Work

2.13 The most popular distance for walking to work is less than 2km. Of all the people who walk to work, 54.2% walk less than 2km to work and a further 15.2% walk between 2km and 5km to work.

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



**Figure 13: Percentage of all people who walk to work shown by the distance they commute**  
*For some people commuting much longer distances their journey might be made up of several different modes of transport including walking.*



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 people who walk to work live

3.1 In 2011, Cabot ward is home to the highest number of people who walk to work – 3,545 people, almost half of people in employment and living in the ward (47.4%). More than 2,000 people also walk to work from wards closest to the city centre and in every ward in the city at least 300 people walk to work.

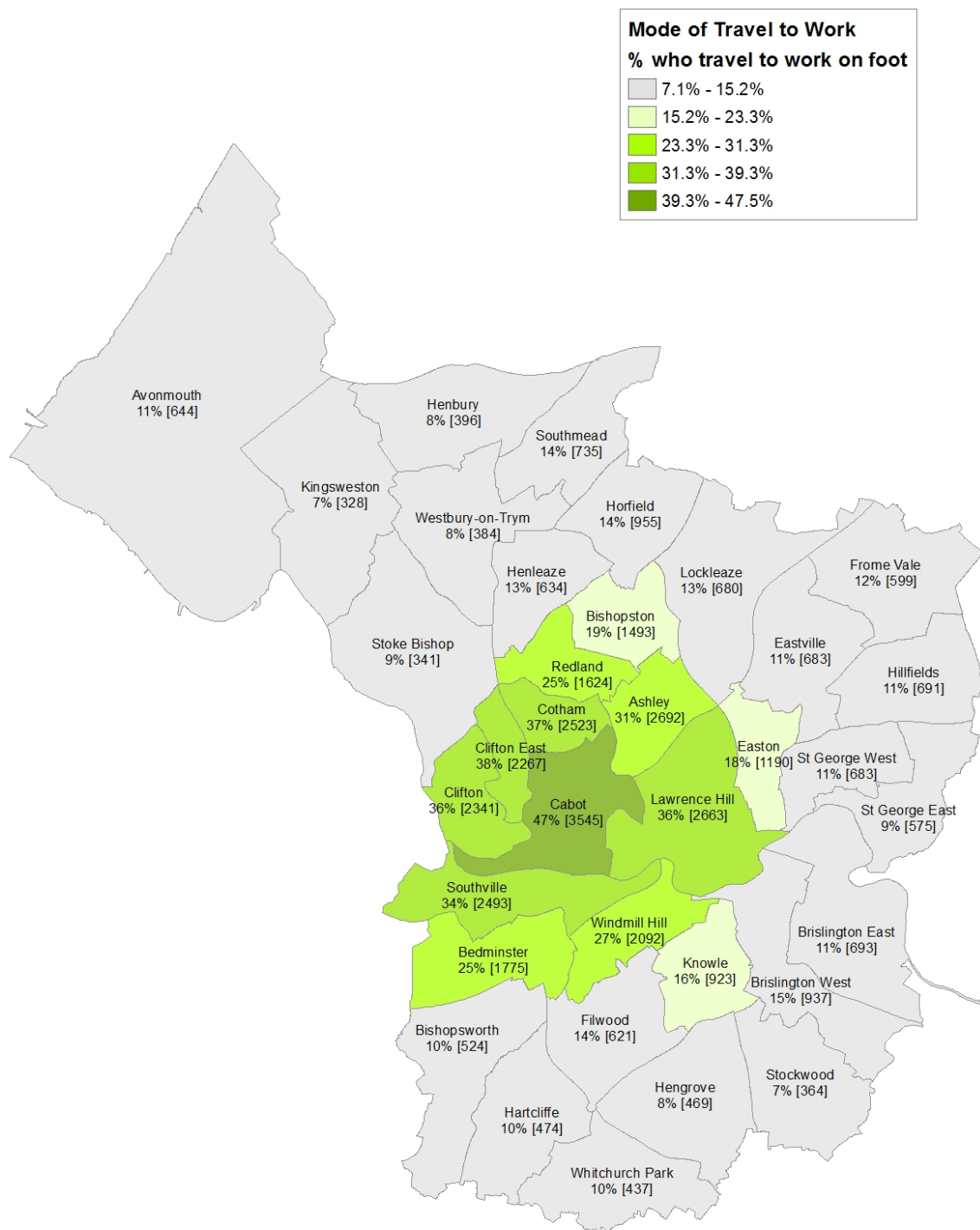
3.2 Figure 14 shows the distribution of people who walk to work by ward across the city. The highest rates of walking to work are in the wards closest to the central area of Bristol. Wards where more than a third of people in employment walk to work include Clifton East (37.6%), Cotham (37.4%), Clifton (36.4%), Lawrence Hill (36.0%) and Southville (33.5%).

3.3 The largest percentage point increase in the proportion of people in employment who walk to work over the last twenty year period has been in Clifton ward. There has been an 11 percentage point increase from 23.2% in 1991, 31.0% in 2001 and 34.5% in 2011.

3.4 In addition to Clifton, three other wards saw a large percentage point increase of more than 8 percentage points between 1991 and 2011 including Ashley (+9.7 percentage points), Clifton East (+9.4 percentage points) and Redland (+8.5 percentage points). Wards with the largest percentage point increases in the proportion of people in employment who walked to work between 1991 and 2011 are shown in Figure 15.

**Figure 14: People who walk to work (from place of residence)**

*Note: Map shows the percentage of all workers who walk to work and in brackets the number of people who walk to work.*



**Figure 15: People aged 16 - 74 in employment who usually travel to work on foot**

**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
Clifton	910	23.2	1,662	31.0	2,220	34.5	11.3
Ashley	900	20.1	1,269	23.4	2,567	29.8	9.7
Clifton East	960	27.0	1,643	32.4	2,194	36.4	9.4
Redland	730	15.3	1,175	20.9	1,562	23.8	8.5
Cotham	1,400	29.9	1,955	32.6	2,446	36.2	6.4
Southville	1,220	28.0	1,446	27.9	2,424	32.6	4.6
Bishopston	670	13.2	914	14.5	1,416	17.8	4.5
Horfield	450	9.4	731	14.1	915	13.7	4.3
Lawrence Hill	1,110	31.4	1,154	29.7	2,567	34.7	3.3
Whitchurch Park	290	6.3	409	8.5	426	9.5	3.2
Cabot	1,320	42.6	1,984	44.0	3,416	45.7	3.1
Bishopsworth	340	6.7	481	10.0	507	9.7	3.1
Stoke Bishop	160	4.9	270	7.4	277	7.5	2.5
Bedminster	1,140	21.7	1,033	19.0	1,728	24.0	2.3
Henleaze	460	10.1	541	10.6	591	11.8	1.8
Stockwood	280	5.4	315	6.1	352	6.9	1.6
Westbury-on-Trym	260	5.8	306	6.6	350	7.0	1.2
Windmill Hill	1,320	25.2	1,295	22.1	2,041	26.3	1.2
Knowle	690	14.8	650	12.5	883	15.8	1.0
Eastville	500	9.7	559	10.4	643	10.6	0.9
Lockleaze	480	11.5	466	10.4	654	12.1	0.6
St. George East	430	7.8	518	8.9	548	8.3	0.5
Filwood	560	12.8	473	11.6	611	13.3	0.4
St. George West	470	10.6	598	11.6	658	11.1	0.4
Easton	840	16.9	786	15.5	1,147	17.3	0.4
Brislington West	670	14.3	666	12.1	888	14.1	-0.2
Hengrove	480	8.4	400	7.3	449	8.1	-0.3
Kingsweston	330	7.8	307	7.1	317	7.1	-0.6
Frome Vale	480	12.1	512	11.0	568	11.3	-0.8
Hartcliffe	520	11.1	393	8.6	459	9.9	-1.1
Henbury	420	9.5	333	8.4	375	7.8	-1.7
Southmead	680	15.6	623	13.7	702	13.7	-1.8
Brislington East	590	13.0	540	9.3	667	10.8	-2.2
Hillfields	690	13.2	629	11.5	658	10.5	-2.7
Avonmouth	740	15.6	571	10.4	606	10.0	-5.6
<b>Bristol</b>	<b>23,500</b>	<b>14.7</b>	<b>27,607</b>	<b>15.6</b>	<b>38,832</b>	<b>18.5</b>	<b>3.8</b>

## **4.0 Conclusion**

4.1 Based on 2011 Census data, a typical person who walks to work in Bristol is likely to be aged under 30, working in a semi-routine or intermediate occupation and walks to their workplace less than 2km away.

### **Further information**

[2011 Census Topic Report: Who Cycles to Work?](#) is available from the Bristol City Council Census web page, together with this report.

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

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

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	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	On foot	% 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	38,973	18.5	3,811
Males	111,287	10,542	2,504	7,275	55,137	4,484	11,172	17,158	15.4	3,015
Females	99,638	7,502	1,705	12,656	44,943	5,596	4,625	21,815	21.9	796
<b>Age</b>										
Age 16 to 19	7,170	287	70	1,556	1,635	1,143	426	1,843	25.7	210
Age 20 to 21	7,934	329	123	1,314	2,624	637	484	2,307	29.1	116
Age 22 to 24	16,267	602	406	2,154	6,056	927	1,317	4,598	28.3	207
Age 25 to 29	32,727	1,540	903	3,210	14,061	1,580	2,888	8,113	24.8	432
Age 30 to 34	29,846	2,176	819	2,399	14,004	1,208	2,964	5,812	19.5	464
Age 35 to 39	24,282	2,413	532	1,752	12,211	852	2,246	3,803	15.7	473
Age 40 to 44	22,457	2,364	430	1,549	11,951	746	1,843	3,106	13.8	468
Age 45 to 49	21,671	2,286	353	1,619	11,584	770	1,585	2,990	13.8	484
Age 50 to 54	18,331	1,906	234	1,548	9,993	773	1,010	2,503	13.7	364
Age 55 to 59	14,681	1,636	195	1,270	8,008	648	616	1,998	13.6	310
Age 60 to 64	9,999	1,386	102	1,006	5,339	491	282	1,205	12.1	188
Age 65 and over	5,560	1,119	42	554	2,614	305	136	695	12.5	95
<b>Ethnic group</b>										
White: Total	186,011	15,867	3,702	15,972	89,790	8,855	14,573	33,990	18.3	3,262
White British	169,560	14,602	3,301	13,962	83,610	7,822	13,057	30,204	17.8	3,002
White Irish	2,052	209	64	201	797	86	204	457	22.3	34
White Other	14,399	1,056	337	1,809	5,383	947	1,312	3,329	23.1	226
Mixed/multiple ethnic group	4,980	403	96	638	1,963	211	445	1,142	22.9	82
Asian/Asian British	10,036	967	212	1,386	4,264	678	309	1,984	19.8	236
Black/African/Caribbean/Black British	8,468	671	172	1,757	3,466	276	373	1,567	18.5	186
Other ethnic group	1,430	136	27	178	597	60	97	290	20.3	45
<b>Car availability</b>										
All categories: Car or van availability	209,772	17,809	4,186	19,742	99,931	10,036	15,741	38,533	18.4	3,794
No cars or vans in household	30,153	2,062	1,057	6,919	3,588	1,320	3,289	11,208	37.2	710
1 car or van in household	88,756	7,236	1,997	8,399	38,598	5,028	8,080	17,584	19.8	1,834
2 or more cars or vans in household	90,863	8,511	1,132	4,424	57,745	3,688	4,372	9,741	10.7	1,250
<b>Qualifications</b>										
No qualifications	18,987	1,478	85	2,304	9,113	1,557	686	3,237	17.0	527
Level 1 qualifications	25,866	1,819	202	2,978	13,342	1,715	1,139	4,078	15.8	593
Level 2 qualifications	28,593	2,046	306	3,457	14,107	1,879	1,425	4,844	16.9	529
Apprenticeship	6,069	600	28	297	3,946	352	277	399	6.6	170
Level 3 qualifications	29,903	2,293	467	3,078	14,087	1,310	1,821	6,343	21.2	504
Level 4 qualifications and above	91,400	9,043	3,006	6,413	40,944	2,539	9,921	18,285	20.0	1,249
Other qualifications	10,107	765	115	1,404	4,541	728	528	1,787	17.7	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	On foot	% On foot	All other modes
<b>Socio-economic classification</b>										
1. Higher managerial, administrative and professional occupations	35,210	3,107	1,410	1,967	16,374	825	4,177	6,838	19.4	512
1.1 Large employers and higher managerial and administrative occupation	4,868	356	151	221	2,858	120	435	660	13.6	67
1.2 Higher professional occupations	30,342	2,751	1,259	1,746	13,516	705	3,742	6,178	20.4	445
2. Lower managerial, administrative and professional occupations	54,418	5,310	1,440	4,055	27,145	1,806	4,495	9,396	17.3	771
3. Intermediate occupations	28,193	1,139	490	4,087	12,910	1,410	1,761	6,024	21.4	372
4. Small employers and own account workers	18,347	5,739	153	452	9,056	717	537	1,137	6.2	556
5. Lower supervisory and technical occupations	14,196	487	129	1,110	8,056	789	1,089	2,153	15.2	383
6. Semi-routine occupations	28,130	915	236	4,010	13,007	1,856	1,574	6,030	21.4	502
7. Routine occupations	20,343	596	129	2,158	10,489	1,799	1,235	3,423	16.8	514
L15 Full-time students	12,088	751	222	2,092	3,043	878	929	3,972	32.9	201
<b>Hours worked</b>										
Part-time: 30 hours or less worked	61,632	6,853	801	7,889	24,913	3,241	3,473	13,606	22.1	856
Full-time: 31 or more hours worked	149,293	11,191	3,408	12,042	75,167	6,839	12,324	25,367	17.0	2,955
<b>Industry</b>										
A, B, D, E Agriculture, energy and water	2,577	182	32	66	1,739	179	145	157	6.1	77
C Manufacturing	13,701	995	136	539	8,557	778	1,152	1,182	8.6	362
F Construction	13,933	1,754	109	410	9,192	1,178	482	624	4.5	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	6,197	20.2	515
H Transport and storage	9,127	519	150	670	5,851	360	435	595	6.5	547
I Accommodation and food service activities	12,361	1,032	129	1,813	3,747	628	924	3,872	31.3	216
J Information and communication	11,112	2,046	512	780	4,101	257	1,217	2,021	18.2	178
K Financial and insurance activities	12,677	564	310	1,908	4,816	580	926	3,390	26.7	183
L Real estate activities	2,709	396	45	166	1,502	66	108	407	15.0	19
M Professional, scientific and technical activities	17,681	2,570	663	1,390	6,138	481	1,863	4,323	24.4	253
N Administrative and support service activities	11,057	958	139	1,392	4,847	710	704	2,090	18.9	217
O Public administration and defence; compulsory social security	11,459	466	487	1,135	5,604	452	1,280	1,769	15.4	266
P Education	22,894	1,497	608	1,514	10,933	822	1,996	5,237	22.9	287
Q Human health and social work activities	29,441	1,672	307	3,480	14,905	1,307	2,174	5,253	17.8	343
R, S, T, U Other	9,557	1,611	244	870	3,701	382	729	1,856	19.4	164
<b>Occupation</b>										
1. Managers, directors and senior officials	18,195	2,645	447	974	9,523	505	1,124	2,737	15.0	240
2. Professional occupations	47,657	4,091	1,656	2,878	22,995	1,357	5,393	8,638	18.1	649
3. Associate professional and technical occupations	28,762	4,150	843	2,124	12,346	781	2,580	5,436	18.9	502
4. Administrative and secretarial occupations	23,411	1,327	438	3,386	10,383	1,237	1,324	5,052	21.6	264
5. Skilled trades occupations	20,219	2,144	152	859	12,340	1,364	1,237	1,662	8.2	461
6. Caring, leisure and other service occupations	17,999	1,313	201	2,360	8,436	852	864	3,714	20.6	259
7. Sales and customer service occupations	18,383	627	200	3,472	6,528	1,223	983	5,106	27.8	244
8. Process, plant and machine operatives	12,191	681	72	524	8,139	668	647	790	6.5	670
9. Elementary occupations	24,108	1,066	200	3,354	9,390	2,093	1,645	5,838	24.2	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	On foot	% On foot	All other modes
<b>Distance travelled</b>										
Less than 2km	46,027	0	206	1,865	13,204	1,576	3,789	24,954	54.2	433
2km to less than 5km	63,252	0	590	9,582	30,664	3,828	7,825	9,635	15.2	1,128
5km to less than 10km	35,893	0	554	5,597	23,092	1,998	2,399	1,478	4.1	775
10km to less than 20km	15,898	0	792	1,025	11,906	815	468	521	3.3	371
20km to less than 30km	2,950	0	167	83	2,388	173	35	62	2.1	42
30km to less than 40km	2,117	0	184	46	1,632	137	34	60	2.8	24
40km to less than 60km	2,813	0	404	40	2,127	116	26	74	2.6	26
60km and over	6,874	0	857	497	3,891	269	383	826	12.0	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	1,363	8.0	861