

Article

2011 Census: Out of term population of England and Wales - An alternative 2011 Census population base

With an increasingly mobile society there is a need for population statistics to not only look at where people usually live, but to also look at a range of other alternatives. We examine the out of term population (where students and school children are recorded at their "home" address). Analyses are by age, sex and geographical breakdown.



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1. Foreword

In an increasingly complex and mobile society there is a requirement for population statistics to be produced more flexibly to accommodate a range of analyses: in addition to the usual residence base (where people usually live), one alternative output base is the out of term population (where students and school children are recorded at their 'home' address). This story analyses data for the out of term population by age, sex and geographical breakdown.

2. Key points

- The out of term population of England and Wales was 56.0 million in 2011; this was 125,000 lower than the
 usually resident population. The difference was due to residents of England and Wales with an out of term
 address in Scotland, Northern Ireland or outside the UK. Of these, 81% (101,000) were aged 16 to 24; this
 is because many students are concentrated in this age range.
- Oxford and Cambridge had out of term populations more than 10% below their usually resident populations.
- The four large university cities of Leeds, Manchester, Nottingham and Sheffield each had out of term populations in excess of 20,000 lower than their usually resident populations.
- Age profiles can vary between usually resident and out of term populations: the largest difference was in Oxford, where those aged 16 to 24 accounted for 22% of the usually resident population but only 15% of the out of term population.
- Differences in the younger student population (aged 10 to 15) were also apparent in some local authorities
 with boarding schools: the out of term population of Rutland aged 10 to 15 was 15% lower than the usually
 resident population.
- Runnymede (Surrey) had the greatest increase in the sex ratio of those aged 16 to 24 between the usually resident (87 men per 100 women) and out of term (99 men per 100 women) populations.
- Cheltenham (Gloucestershire) had the greatest increase in the sex ratio of those aged 10 to 15 between the usually resident (99 males per 100 females) and out of term (106 males per 100 females) populations.

3. Data

Out of term-time population tables for England and Wales can be found on the Nomis website.

4. Introduction

The 2011 Census was planned to make it as clear as possible who should be counted, and where. This permitted two main output bases to be produced: the first was the 'usual residence' ¹ base for those resident, or intending to be resident, for 12 months or longer; the second was overseas short-term residents who were, or intended to be, in the UK for between 3 and 12 months.

The 2011 Census was designed to be flexible enough to provide population outputs on a range of alternative population bases. These included:

Workday population, where the usually resident population is re-distributed to their places of work, while
those not in work are recorded at their usual residence.

- Work-place population, where the usually resident population is re-distributed to their main place of work, but those not working are excluded.
- Out of term population, where students and school children who were counted in the usually resident base
 at their boarding school or university residence address were relocated to their family home (if they had
 one within England and Wales). This out of term base is derived from the usually resident population, that
 is, those intending to be resident in the UK for 12 months or more.

Analysis of both the workday and work-place populations have been previously published, while this short story analyses the out of term population. The out of term population is an important alternative measure to the usually resident population, particularly in areas with large universities and therefore student populations; many of these students will be absent for a proportion of the year. This information will aid the planning of services in these areas, for example health care and transport provision. The analyses of out of term populations are based on 2011 Census tables (46 Kb Excel sheet) released on 24 September 2014³.

The out of term population includes:

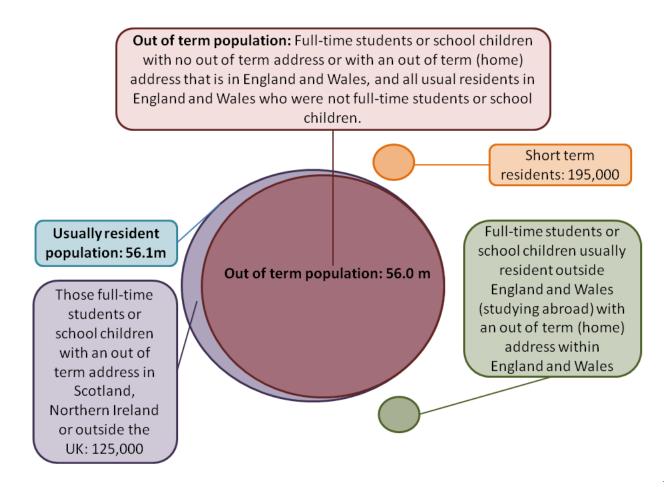
- Students and school children usually resident in England and Wales for whom an out of term address was not provided (counted at their usual residence).
- Students and school children usually resident in England and Wales for whom an out of term address within England and Wales was provided (counted at their out of term address).
- All usual residents in England and Wales who were not students or school children (counted at their usual residence).

The out of term population excludes:

- Short-term residents.
- Students and school children who are usually resident within England and Wales but have out of term addresses in Scotland, Northern Ireland or outside the UK.
- Students and school children who were not usually resident in England and Wales, but who had an out of term address in England and Wales (including those studying abroad).

The out of term population of England and Wales is not equal to the usually resident population of England and Wales, but is a subset of this population. Figure 1 shows who is included in and excluded from the out of term population base.

Figure 1: Out of term population output base definition diagram



Notes:

1. 2011 Census Tables OT1117EW and KS101 were used to produce Figure 1.

In 2011, the total usually resident population of England and Wales was 56.1 million; the out of term population was 56.0 million (Figure 1). There were 125,000 (0.2%) usual residents of England and Wales for whom an out of term address was in Scotland, Northern Ireland or outside the UK. This number may not reflect the total number of overseas students studying in England and Wales as many international students may remain at their term time address out of term time rather than return to their home country, and so may not have provided a second address abroad.

This analysis focuses on differences between the usually resident and out of term populations for all ages, while also highlighting differences in the age group 16 to 24.

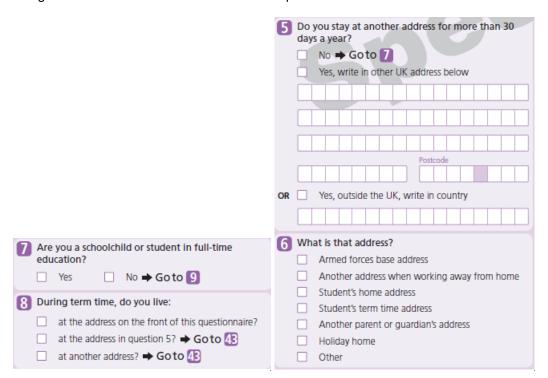
The out of term population aged 16 to 24 was 6.6 million in 2011, while the usually resident population in this age group was 6.7 million. Therefore, 101,000⁴ (1.5%) usual residents aged 16 to 24 had an out of term address outside England and Wales; this was 81% of all people with an out of term address outside England and Wales (125,000).

This short story analyses characteristics of the out of term population in England and Wales at the time of the 2011 Census by:

- Identifying differences between the usually resident and out of term populations
- Comparing density of out of term and usually resident populations in 2011
- Comparing age and sex profiles of out of term and usually resident populations

Notes for introduction

- 1. The usually resident population refers to people who live in the UK for 12 months or more, including those who have been resident for less than 12 months but intend to stay for a total period of 12 months or more. The population base for the 2011 Census was the usually resident population of England and Wales, defined as anyone who, on the night of 27 March 2011, was either (a) resident in England and Wales and who had been resident, or intended to be resident in the UK for a period of 12 months or more, or (b) resident outside the UK but had a permanent England and Wales address and intended to be outside the UK for less than a year.
- 2. Students and school children in full-time education who have an out of term address are identified using questions 7 and 8 of the 2011 Census questionnaire. The location of the out of term address is determined using the second residence information from questions 5 and 6.



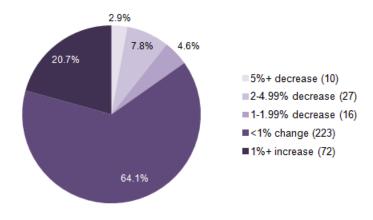
- 3. 2011 Census tables for out of term population are not directly comparable with the 2001 Census data (Table SO12) published for all school children and students in full-time education who would reside in the local authority area where they not living away from home during term-time.
- 4. Some numbers and percentages throughout this report may not sum due to rounding.

5. Differences between the usually resident and out of term populations

Figure 2 summarises the percentage differences between usually resident and out of term populations for all 348 local authorities in England and Wales in 2011. The majority (64% or 223 local authorities) had less than 1%

difference between their usually resident and out of term populations. One in five local authorities (21% or 72 local authorities) had out of term populations at least 1% greater than their usually resident populations, with the greatest increase in Chiltern at 2.4%. The remaining 15% (53 local authorities) had out of term populations at least 1% lower than their usually resident populations, including 2.9% (10 local authorities) experiencing out of term population decreases in excess of 5%.

Figure 2: Distribution of local authorities in England and Wales by magnitude of percentage difference between usually resident and out of term populations in 2011



Source: Census - Office for National Statistics

Notes:

1. 2011 Census Table OT1117EW was used to produce Figure 2.

Table 1 shows the top 10 local authorities with the greatest percentage decreases from their usually resident populations to their out of term populations in 2011. The 10 local authorities were all areas containing universities. These areas all had reductions of over 5% in their out of term populations; the populations of these areas aged 16 to 24 all decreased by more than a quarter. Oxford and Cambridge stand out as the two areas with out of term populations in excess of 10% below their usually resident populations (populations aged 16 to 24 were more than 40% lower). This may relate to the status of Oxford and Cambridge universities, attracting students from further afield, including many international students.

Table 1: Ten local authorities with greatest percentage losses between the usually resident and out of term populations, 2011

Rar	nk Local authority	Out of term population (thousands)	Usual residents (thousands)	Numerical difference (thousands)	% Difference
1	Oxford	136	152	-16	-10.7
2	Cambridge	111	124	-12	-10.1
3	Nottingham	283	306	-23	-7.5
4	Ceredigion	71	76	-5	-6.9
5	Exeter	110	118	-8	-6.7
6	Newcastle upon Tyne	264	280	-17	-5.9
7	Canterbury	142	151	-9	-5.9

8	Southampton	224	237	-13	-5.4
9	Manchester	477	503	-27	-5.3
10	Lancaster	131	138	-7	-5.1

Source: Office for National Statistics

Notes:

1. 2011 Census Table OT1117EW was used to produce Table 1.

Table 2 shows the 10 local authorities with the greatest numerical reduction between usually resident and out of term populations. There are similarities between Tables 1 and 2, but Table 2 highlights the large absolute numbers of students found in Birmingham, Bristol, Cardiff, Leeds, Liverpool and Sheffield who had an out of term address elsewhere. When expressed as a percentage of their usually resident population, six of these were not large enough to appear in Table 1 but they were numerically large: the top four local authorities in Table 2 (Manchester, Nottingham, Sheffield and Leeds) each experienced an out of term population reduction in excess of 20,000.

Table 2: Ten local authorities with greatest absolute losses between the usually resident and out of term populations, 2011

Rank Local authority		Out of term population (thousands)	Usual residents (thousands)	Numerical difference (thousands)	% Difference
1	Manchester	477	503	-27	-5.3
2	Nottingham	283	306	-23	-7.5
3	Sheffield	530	553	-23	-4.1
4	Leeds	731	751	-20	-2.7
5	Newcastle upon Tyne	264	280	-17	-5.9
6	Liverpool	450	466	-16	-3.5
7	Birmingham	1057	1073	-16	-1.5
8	Oxford	136	152	-16	-10.7
9	Cardiff	332	346	-14	-4.1
10	Bristol, City of	415	428	-13	-3.1

Source: Office for National Statistics

Notes:

1. 2011 Census Table OT1117EW was used to produce Table 2.

The greatest population gain between the usually resident population and the out of term population was 2.4% in Chiltern (Table 3). The proportional decreases in Table 1 are much greater than the out of term gains noted in Table 3; this may be because term time student populations were concentrated in those local authorities with universities, while students are dispersed geographically across the UK and abroad out of term.

Many of the areas highlighted in Table 3 are more affluent areas, from where it is possible that a greater proportion of the local population will leave to attend university, where they were then recorded as usually resident. The largest percentage increase within Wales was for Monmouthshire (1.4%), ranked 22nd within England and Wales.

Table 3: Ten local authorities with greatest percentage gains between the usually resident and out of term populations, 2011

		Out of term population (thousands)	Usual residents (thousands)	Numerical difference (thousands) Di	% fference
1	Chiltern	95	93	2	2.4
2	Isles of Scilly	2	2	0	2.2
3	Elmbridge	133	131	2	1.7
4	Hart	93	91	2	1.7
5	South Northamptonshire	87	85	1	1.7
6	Mole Valley	87	85	1	1.6
7	South Bucks	68	67	1	1.6
8	St Albans	143	141	2	1.6
9	Hambleton	91	89	1	1.5
10	Three Rivers	89	87	1	1.5

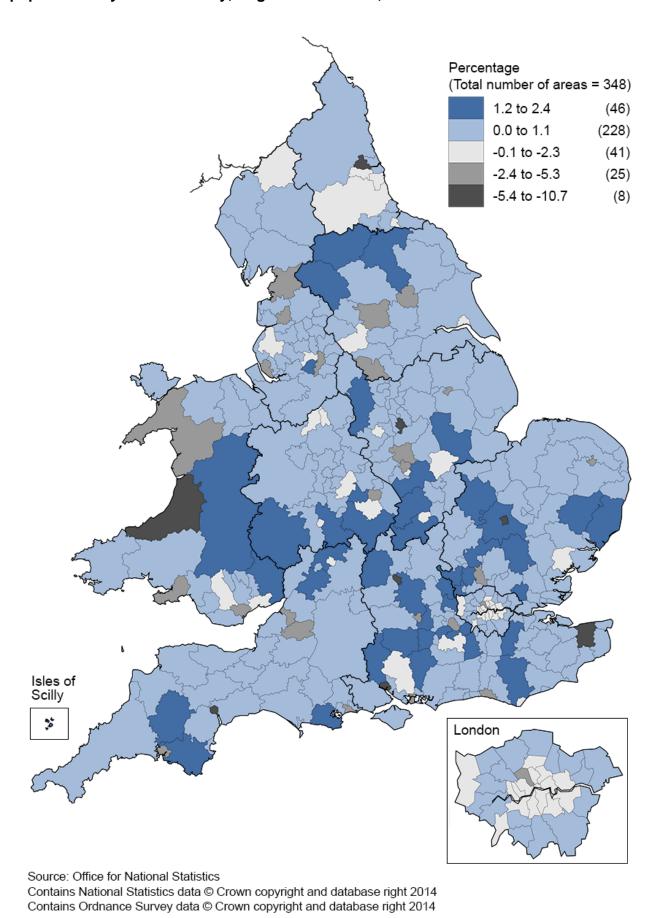
Source: Office for National Statistics

Notes:

Map 1 shows the direction and magnitude of percentage change between the usually resident and out of term populations by local authority within England and Wales. The majority of local authorities across England and Wales gained population out of term, while losses are evident for many local authorities with universities. Those presenting the largest population losses out of term were local authorities with large universities, such as: Bristol, Cambridge, Canterbury, Lancaster, Norwich, Oxford and York and in Wales Cardiff, Ceredigion and Swansea.

^{1. 2011} Census Table OT1117EW was used to produce Table 3.

Map 1: Percentage gains and losses between the usually resident and out of term populations by local authority, England and Wales, 2011



6. Comparing density of the usually resident and out of term populations in 2011

In this analysis population density is measured using the number of persons per hectare in a given geographical area. From the 2011 Census data, population densities were calculated for both the usually resident and out of term populations; Table 4 shows the local authorities with the largest decreases in population density between the two populations.

The areas in Table 4 reflect the presence of large universities in these areas, with the greatest differences seen in Camden and Oxford, where the out of term population densities were 3.8 and 3.5 persons per hectare lower than their respective usually resident population densities.

For <u>Wales</u>, Cardiff had the greatest decrease between the usually resident and out of term population densities at 1.1 persons per hectare (22nd within England and Wales).

Table 4: Ten local authorities with greatest decreases between usually resident and out of term population densities

Persons	per	hectare
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Ran	k Local authority	Out of term population	Usually resident Diffe population	rence
1	Camden	97.3	101.1	-3.8
2	Oxford	29.8	33.3	-3.5
3	Nottingham	37.9	41	-3.1
4	Cambridge	27.4	30.4	-3
5	Islington	135.9	138.7	-2.8
6	Southampton	44.9	47.5	-2.6
7	Tower Hamlets	126.2	128.5	-2.3
8	Manchester	41.2	43.5	-2.3
9	Portsmouth	48.5	50.7	-2.2
10	Southwark	98.2	99.9	-1.7

Source: Office for National Statistics

Notes:

1. 2011 Census Tables OT102EW and QS102EW were used to produce Table 4.

7. Age profiles

As the majority of students (and therefore those who are relocated in the out of term population) were aged 16 to 24, differences in the age profile of local authorities can occur. Figures 3, 4 and 5 compare the age profiles of the usually resident and out of term populations:

- For the local authority with the largest difference in population density (Camden)
- For the local authority with the largest percentage reduction in population out of term (Oxford)
- For the local authority with the largest percentage increase in population out of term (Chiltern)

These figures demonstrate how the population of an area can vary at different times throughout the year, placing different requirements on the provision of services locally. Oxford had the largest difference between the proportions of the usually resident and out of term populations aged 16 to 24 (22% of usual residents and 15% of out of term population respectively); this was a 42% reduction in the population aged 16 to 24 between the usually resident (term-time) and out of term populations.

0ut of Term Usual resident

5,000

4,000

1,000

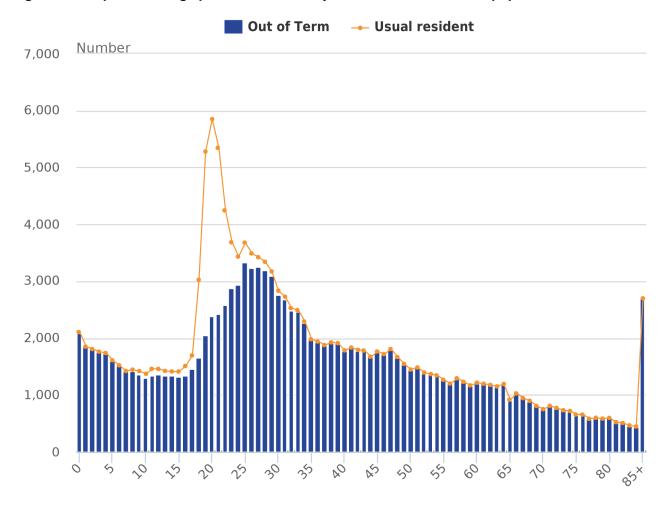
Figure 3: Comparison of age profile of the usually resident and out of term population: Camden

Source: Census - Office for National Statistics

Notes:

1. Census Tables OT117EW and QS103EW were used to produce Figure 3.

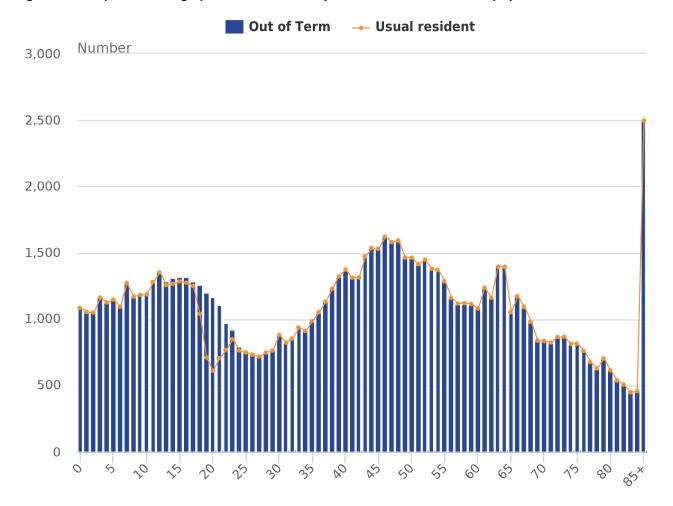
Figure 4: Comparison of age profile of the usually resident and out of term population: Oxford



Notes:

1. Census Tables OT117EW and QS103EW were used to produce Figure 4.

Figure 5: Comparison of age profile of the usually resident and out of term population: Chiltern



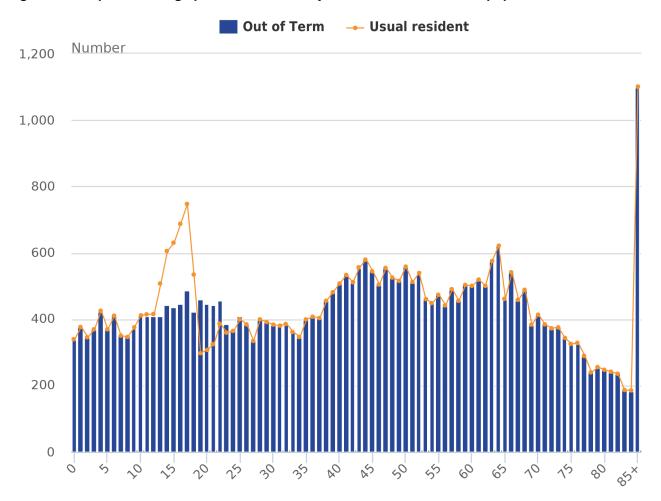
Notes:

1. Census Tables OT117EW and QS103EW were used to produce Figure 5.

Differences in the proportions of the population aged 10 to 15 between the usually resident and out of term populations were relatively small. However, the age profiles of some local authorities have noticeable percentage differences between usually resident and out of term populations in these younger student ages.

The two local authorities with the largest percentage differences between their usually resident and out of term populations aged 10 to 15 (Rutland and North Dorset) are shown in Figures 6 and 7. The out of term population aged 10 to 15 in Rutland was 15% lower than the usually resident population in this age group, while the difference in North Dorset was 8.3%. These differences may relate to the presence of a number of boarding schools in the local areas: Rutland includes Uppingham and Oakham schools, while North Dorset includes Bryanston, Milton Abbey and St Mary's Shaftesbury schools.

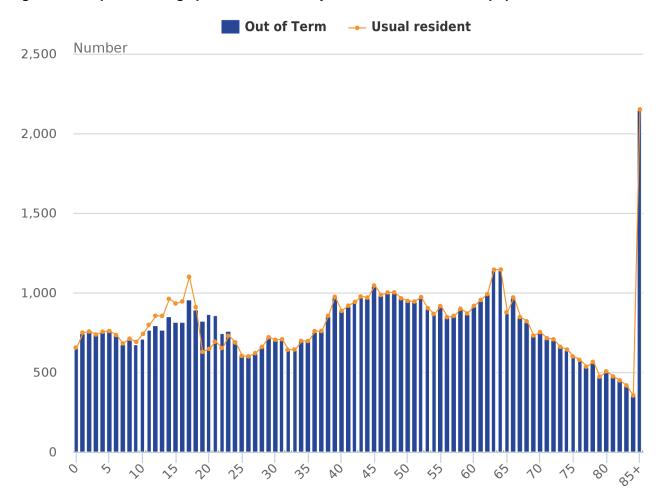
Figure 6: Comparison of age profile of the usually resident and out of term population: Rutland



Notes:

1. Census Tables OT117EW and QS103EW were used to produce Figure 6.

Figure 7: Comparison of age profile of the usually resident and out of term population: North Dorset



Notes:

1. Census Tables OT117EW and QS103EW were used to produce Figure 7.

8. Differences in sex ratios between usually resident and out of term populations

The overall sex ratio in the usually resident population at local authority level varied from 90 males per 100 females in Rother (East Sussex) to 125 males per 100 females in City of London. Within the usually resident population aged 16 to 24, there was greater variation in the sex ratio, from 83 men per 100 women in Wandsworth to 224 men per 100 women in Richmondshire (due to the presence of Armed Forces' bases).

The greatest decrease in the sex ratio between the usually resident and out of term populations aged 16 to 24 was in Richmondshire (Table 5), where there was a reduction of 19 men per 100 women, from 224 men per 100 women in the usually resident population to 205 men per 100 women in the out of term population. This reduction may relate to students returning to a 'home' address out of term time. The second and third largest differences in the 16 to 24 age group were in Stafford and Charnwood (Leicestershire), where the sex ratios were lower in the out of term populations by 18 and 13 men per 100 women respectively. This is likely to relate to the presence of Staffordshire and Loughborough Universities in these local authorities; these universities have a reputation for courses that may attract a greater number of male students, contributing to the higher sex ratios during term time.

The greatest increase in the sex ratio of those aged 16 to 24 between the usually resident and out of term populations was in Runnymede (Surrey) (Table 6), rising from 87 men per 100 women in the usually resident population to 99 men per 100 women in the out of term population. This may relate to the presence of Royal

Holloway College (part of London University), which has a strong reputation for Arts and Humanities subjects which may attract more female students.

The largest decrease in the sex ratio of the population aged 10 to 15 was in City of London (Table 7), which fell from 127 to 102 males per 100 females. While City of London had a relatively small population, it also includes St Paul's Cathedral School which, while being co-educational, only provides boarding for a number of male choristers.

In contrast, the age group 10 to 15 with the largest increase in sex ratio between the usually resident and out of term populations was seen in Cheltenham (Gloucestershire) (Table 8), where the sex ratio increased from 99 males per 100 females to 106 males per 100 females. This may relate to the location of boarding schools in the area, including Cheltenham Ladies' College, which provides boarding for over 800 girls aged 11 to 18.

Table 5: Local authorities with the largest decreases in the sex ratio between the usually resident and out of term populations aged 16 to 24

		Sex ratio (males	s per 100 fe	males)
Rank Local authority		Usually Out resident	of term Diff	ference
1	Richmondshire	224	205	-19
2	Stafford	128	110	-18
3	Charnwood	119	107	-13
4	Purbeck	123	115	-8
5	Hammersmith and Fulham	101	94	-7

Source: Office for National Statistics

Notes:

1. Census 2011 Table OT1117EW was used to produce Table 5.

Table 6: Local authorities with the largest increases in the sex ratio between the usually resident and out of term populations aged 16 to 24

		Sex ratio (males per 100 females)			
Rank	Local authority	Usually resident	Out of term	Difference	
1	Runnymede	87	99	11	
2	Winchester	92	102	10	
3	Lancaster	93	103	10	
4	Cheltenham	89	99	9	
5	Lincoln	87	95	8	

Source: Office for National Statistics

Notes:

1. Census 2011 Table OT1117EW was used to produce Table 6.

Table 7: Local authorities with the largest decreases in the sex ratio between the usually resident and out of term populations aged 10 to 15

Sex ratio (males per 100 females)

Rank Local authority		Usually resident C	Out of term [Difference
1	City of London	127	102	-25
2	Vale of White Horse	114	104	-9
3	Rutland	115	107	-8
4	Oxford	106	100	-6
5	Waverley	114	108	-5

Source: Office for National Statistics

Notes:

1. Census 2011 Table OT1117EW was used to produce Table

7

Table 8: Local authorities with the largest increases in the sex ratio between the usually resident and out of term populations aged 10 to 15

		Sex ratio (r	males per 10	0 females)
Rank	Local authority	Usually resident	Out of term	Difference
1	Cheltenham	99	106	7
2	Wycombe	102	108	6
3	Tunbridge Wells	95	100	5
4	Isles of Scilly	81	86	5
5	Tandridge	100	103	4

Source: Office for National Statistics

Notes:

1. Census 2011 Table OT1117EW was used to produce Table

8.

9. Background notes

- 1. Relevant table numbers are provided in all download files within this publication. All data tables are available via the <u>Nomis</u> website.
- 2. Further information on future releases is available online in the 2011 Census Prospectus.
- 3. ONS has ensured that the data collected meet users' needs via an extensive <u>2011 Census outputs</u> <u>consultation</u> process in order to ensure that the 2011 Census outputs will be of increased use in the planning of housing, education, health and transport services in future years.
- 4. ONS is responsible for carrying out the census in England and Wales. Simultaneous but separate censuses took place in Scotland and Northern Ireland. These were run by the National Records of Scotland (NRS) and the Northern Ireland Statistics and Research Agency (NISRA) respectively.
- 5. A person's place of usual residence is in most cases the address at which they stay the majority of the time. For many people this will be their permanent or family home. If a member of the services did not have a permanent or family address at which they are usually resident, they were recorded as usually resident at their base address.
- 6. All key terms used in this publication are explained in the <u>2011 Census glossary</u>. Information on the <u>2011 Census geography products for England and Wales</u> is also available.

7. All census population estimates were extensively quality assured, using other national and local sources of information for comparison and review by a series of quality assurance panels. An extensive range of <u>quality assurance</u>, <u>evaluation and methodology</u> papers were published alongside the first release in July 2012.

8. Statistical contact:

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9. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.