

# The December 2015 electoral registers in Great Britain

Accuracy and completeness of the  
registers in Great Britain and the  
transition to Individual Electoral  
Registration

July 2016

## Appendices

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# Appendix A: Measuring accuracy and completeness

The overarching objective of this study was to measure the accuracy and completeness of the December 2015 local government and parliamentary registers in Great Britain.<sup>1</sup>

## Producing completeness and accuracy estimates

There are various methods used to assess the quality of the electoral registers which differ mainly on the frequency with which they can be used and the reliability of the results. These approaches are presented below.

### Using large-scale national surveys

Large-scale, representative or random social surveys can be used to produce reliable estimates of the completeness of the registers. Such surveys tend to use the postcode address file (PAF) as a sampling frame and cross-check the information gathered against actual entries on the electoral register.

The main limitation of this method is that it requires large sample sizes, meaning surveys are expensive to conduct.

Moreover, non-response to the surveys is likely to be highest among those who are eligible but not registered. This method does not allow estimating the number of duplicate entries across local registers

This is methodology that was used for this study and for '*Great Britain's electoral registers 2011*' and '*The quality of the 2014 electoral registers in Great Britain*'.

### Comparing ONS electoral statistics (number of entries on the registers) with mid-year population estimates

These two datasets can be used to provide relatively crude estimates of the annual registration rates at national and subnational levels. Under this method, the registration rate is calculated by using data from the Office for National Statistics (ONS) for the total entries on the electoral registers as the numerator and dividing this by the ONS estimates for the population aged 16 and above as the denominator.

However, the method has many limitations:

- The approach cannot be used to report on the accuracy of the registers;

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<sup>1</sup> Those eligible to be registered are all UK, Irish, Commonwealth and EU member states citizens aged 18+ and ordinarily resident in the UK; those who will turn 18 during the lifetime of the register are classed as 'attainers'. In Scotland, those aged 16 and 17 are eligible to vote, and 14 and 15 year olds are classed as 'attainers' however 14 and 15 year olds are not included in this study due to data sharing agreements which mean that the details of 14 and 15 year olds on the register cannot be shared.

- It is not possible to derive a figure from the population estimates for the proportion of the population whose nationality means they would be ineligible to vote;
- The accuracy of population estimates is likely to decline each year after the Census on which they are based;
- ONS electoral statistics represent entries on the electoral registers, not individual electors. It is not possible to quantify the number of entries which are duplicates or which are illegitimate using this approach. This means that the ONS figures are likely to over-state the number of registered electors.<sup>2</sup>

### Matching census records against the electoral register

A sample of census returns or data from the census coverage survey can be cross-matched against the electoral registers to derive estimates of completeness and accuracy. This approach provides reliable national estimates with detailed demographic breakdowns and is widely recognised as being the ‘gold standard’ for producing estimates of accuracy and completeness of the registers.

Variants of this approach were used in relation to the 1965, 1980, 1990, 2000 and 2010/2011 registers.

However, this approach also has two key limitations:

- The exercise can only be repeated every 10 years;
- Where census records are matched against register entries, there is a high probability that many of those missing from the registers are also missing from the census.

## Accuracy

**Accuracy means that ‘*there are no false entries on the electoral registers*’.**

The accuracy of the electoral registers is therefore a measure of the percentage of entries on the registers which relate to verified and eligible voters who are resident at that address. Inaccurate register entries may relate to entries which have become redundant (for example, due to home movement), are ineligible and have been included unintentionally, or which are fraudulent.

In order to establish accuracy, all register entries held for addresses where an interview was undertaken, as well as those addresses that were found to be vacant or derelict, were checked against the survey information collected in terms of:

- Whether a corresponding name at that address was gathered in the survey;
- If so, whether the individual’s details on the register were correct.

Whether other details information related to date of birth (for attainers) and citizenship were correct on the register (including in terms of whether the person matched to the register entry was actually eligible to vote).

Three broad outcomes were possible:

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<sup>2</sup> An individual can have a second entry on the register if he/she spend half of the year in a second accommodation (i.e.: holiday home or student accommodation).

- **Major error:** can be divided into three categories –
  - (a) no corresponding name was collected by the survey OR
  - (b) the register entry was matched to a person at the correct address but their name/other details were recorded incorrectly on the register to the extent that they would be unable to vote (e.g. their name would not be recognised/accepted if they tried to vote at a polling station or they would be barred from voting due to incorrect information on the register about their age or nationality) (major error type b) OR
  - (c) the register entry was matched to a person at the correct address but they were ineligible to vote (and the register details were therefore incorrect).
- **Minor error:** the register entry was matched to a person at the correct address and their name/other details were recorded incorrectly, but the error would not prevent them from being able to vote
- **No major or minor errors:** the register entry was matched to a person at the correct address and their name/other details were correctly recorded.

No major or minor errors, or just a minor error mean that a person was counted as accurate. A major error meant that a person was counted as inaccurate.

**Table A1: Types of accuracy error on the February/March 2014 and December 2015 local government registers.**

	Feb/March 2014	December 2015
<b>Major errors total (inaccurate)</b>	<b>13.5%</b>	<b>9.4%</b>
<b>Major errors – (a)</b>	11.3%	8.8%
No corresponding name taken at address		
<b>Major errors – (b)</b>	<b>1.6%</b>	<b>0.3%</b>
First name and/or surname wrong on register	1.2%	0.1%
First name and/or surname missing on register	0.1%	-
UK/Irish/Commonwealth marker present <sup>3</sup>	0.3%	0.2%
<b>Major errors – (c)</b>	<b>0.6%</b>	<b>0.3%</b>
Name on register corresponds to ineligible name on survey	-	0.1%
Attainers - DOB missing or wrong	0.1%	0.1%
EU citizens marker missing	0.5%	0.1%
<b>Accurate with minor errors</b>	<b>10.7%</b>	<b>10.4%</b>
First name/surname on register misspelled	2.2%	1.0%
First name/surname on register incomplete	0.6%	0.5%
Middle name missing from register	7.9%	7.8%
Middle name initials misspelled or incomplete on register	0.0%	0.1%
Middle name initial wrong on register	N/A	0.1%

<sup>3</sup> These electors should not have a marker.

Person does not have a middle name but middle name on register (respondents only)	N/A	0.2%
Surname is/assumed to be previous surname <sup>4</sup>	N/A	0.5%
First/middle/surname in different order on register	N/A	0.1%
DoB earlier on register for attainer <sup>5</sup>	N/A	0.0%

Base (unweighted): December 2015 - 10,871, Feb/March 2014 – 9,446.

**Table A2: Types of accuracy error on the February/March 2014 and December 2015 Parliamentary registers.**

	Feb/March 2014	December 2015
<b>Major errors total (inaccurate)</b>	<b>13.6%</b>	<b>9.5%</b>
<b>Major errors – (a)</b>	<b>11.6%</b>	<b>8.8%</b>
No corresponding name taken at address		
<b>Major errors – (b)</b>	<b>1.4%</b>	<b>0.3%</b>
First name and/or surname wrong on register	1.2%	0.1%
First name and/or surname missing on register	0.0%	-
UK/Irish/Commonwealth marker present <sup>6</sup>	0.2%	0.2%
<b>Major errors – (c)</b>	<b>0.6%</b>	<b>0.3%</b>
Name on register corresponds to ineligible name on survey	0.5%	0.1%
Attainers - DOB missing or wrong	0.1%	0.1%
EU citizens marker missing	0.0%	0.1%
<b>Accurate with minor errors</b>	<b>10.7%</b>	<b>10.2%</b>
First name/surname on register misspelled	2.1%	0.8%
First name/surname on register incomplete	0.5%	0.5%
Middle name missing from register	8.0%	7.7%
Middle name initials misspelled or incomplete on register	0.0%	0.1%
Middle name initial wrong on register	N/A	0.1%
Person does not have a middle name but middle name on register (respondents only)	N/A	0.2%
Surname is/assumed to be previous surname	N/A	0.5%
First/middle/surname in different order on	N/A	0.1%

<sup>4</sup> This assumption was made if an individual's first name matched and the surname they had given matched that of other members of their household but not the surname on the electoral register.

<sup>5</sup> Where the date of birth on the register is earlier than the attainer's actual birthday. In this case they would technically be able to vote in an election before they are eligible.

<sup>6</sup> These electors should not have a marker.

register		
DoB earlier on register for attainer	-	0.0%

Base (unweighted): December 2015 - 10,871, Feb/March 2014 – 9,446.

## Completeness

**Completeness means that ‘every person who is entitled to have an entry in an electoral register is registered’.**

The completeness of the electoral registers therefore refers to the percentage of eligible people who are registered at their current address. The proportion of eligible people who are not included on the register at their current address constitutes the rate of under-registration.

In order to establish completeness, all household members for whom the survey collected information about were checked against the details on the electoral register in terms of:

- Whether they appeared on the register at all;
- Whether their name appeared correctly on the register;
- Whether other details information related to date of birth (for attainers) and citizenship appeared correctly on the register.

Three broad outcomes were possible:

- **Major error:** either they did not appear on the register OR they appeared on the register but their name/other details were recorded incorrectly to the extent that they would be unable to vote (e.g. their name would not be recognised/accepted if they tried to vote at a polling station or they would be barred from voting due to incorrect information on the register about their age or nationality);
- **Minor error:** they appeared on the register and their name/other details were recorded incorrectly, but the error would not prevent them from being able to vote;
- **No major or minor errors:** they appeared on the register and their name/other details were correctly recorded.

No major or minor errors, or just a minor error mean that a person was counted as complete. A major error meant that a person was counted as incomplete.

Where an entry contained more than one type of error, for instance a misspelled first and middle name, error codes were assigned based on a hierarchy where major errors were prioritized over minor errors, then surname errors over first name errors over middle name errors.

**Table A3: Types of completeness error on the February/March 2014 and December 2015 local government registers.**

	Feb/March 2014	December 2015
Major errors total (incomplete)	15.3%	16.1%

<b>Major errors – (a)</b>		
Living at address but not named on register	13.7%	16.0%
<b>Major errors – (b)</b>	<b>1.6%</b>	<b>0.1%</b>
First name and/or surname wrong on register	1.2%	0.1%
Middle name wrong on register	0.1%	-
Incorrect nationality marker	0.3%	-
DoB on register later than actual DoB	0.0%	0.0%
<b>Complete with minor errors</b>	<b>10.1%</b>	<b>9.5%</b>
First name/surname on register is misspelled	2.1%	0.9%
First name/surname is incomplete	0.5%	0.5%
Middle name missing from register	7.4%	7.2%
Middle name initial misspelled or incomplete on register	0.0%	0.1%
Middle name initial wrong on register	N/A	0.1%
Person does not have middle name but middle name on register (respondent only)	N/A	0.2%
Surname is/assumed to be previous surname <sup>7</sup>	N/A	0.5%

Base (unweighted): December 2015 – 11,648, Feb/March 2014 – 9,601.

Note: Date of Birth (DoB).

**Table A4: Types of completeness error on the February/March 2014 and December 2015 Parliamentary registers.**

	<b>Feb/March 2014</b>	<b>December 2015</b>
<b>Major errors total (incomplete)</b>	<b>14.1%</b>	<b>14.8%</b>
<b>Major errors – (a)</b>		
Living at address but not named on register	12.6%	14.5%
<b>Major errors – (b)</b>	<b>1.5%</b>	<b>0.3%</b>
First name and/or surname wrong on register	1.1%	0.1%
Middle name wrong on register	0.1%	-
Incorrect nationality marker	0.2%	0.2%
DoB on register later than actual DoB	0.0%	0.0%
<b>Complete with minor errors</b>	<b>10.2%</b>	<b>9.4%</b>
First name/surname on register is misspelled	2.0%	0.8%
First name/surname is incomplete	0.5%	0.1%
Middle name missing from register	7.7%	7.3%
Middle name initial misspelled or incomplete on register	0.0%	0.1%

<sup>7</sup> This assumption was made if an individual's first name matched and the surname they had given matched that of other members of their household but not the surname on the electoral register.



Middle name initial wrong on register	N/A	0.1%
Person does not have middle name but middle name on register (respondent only)	N/A	0.2%
Surname is/assumed to be previous surname <sup>8</sup>	N/A	0.5%

Base (unweighted): December 2015 – 11,155, Feb/March 2014 – 9,179.

## National estimates

### ***Electoral registration in 2011***

This census method is the one used for ***Electoral registration in 2011*** which allowed us to produce estimates of accuracy and completeness for England, Scotland and Wales. The estimates were produced for two points in time for England and Wales and one in Scotland<sup>9</sup>:

- **England and Wales:** 1 December 2010 (the registers published immediately following the 2010 annual canvass) and 1 April 2011 (registers published within a week of the census date).
- **Scotland:** 1 April 2011 (registers published within a week of the census date.) When making comparisons between the 2011 estimates and the 2015 estimates It is particularly important to take into account that a different register was used to produce the estimates in Scotland: that which was published directly after the census rather than that published at the end of the annual canvass as is the case this study.

These 2011 estimates indicated slightly higher levels of completeness in Scotland and slightly lower levels of completeness in Wales (although not significant).<sup>10</sup> Accuracy was also found to be broadly consistent across England, Scotland and Wales at approximately 90% for the April 2011 registers. However the approach to measuring accuracy was different and therefore the estimate for England and Wales was provided as a range (88%-90%). The estimates of completeness published in Electoral registration in 2011 are laid out in the table below.

**Table A5: Completeness of electoral registers in Great Britain, 2010/2011**

Country	December 2010		April 2011	
	Parliamentary	Local government	Parliamentary	Local government
England	86%	84%	85%	84%
Scotland	-	-	89%	87%
Wales	82%	82%	81%	80%

Base England and Wales December 2010: 40,878 (Parliamentary); 43,237 (Local government)

<sup>8</sup> Ibid.

<sup>9</sup> For further information on the methodology of that study see Chapter 2 in *Electoral Registration in 2011* (July 2014)

[http://www.electoralcommission.org.uk/\\_data/assets/pdf\\_file/0006/169890/Electoral-Commission-Census-2011.pdf](http://www.electoralcommission.org.uk/_data/assets/pdf_file/0006/169890/Electoral-Commission-Census-2011.pdf)

<sup>10</sup> The sample size in Wales returned high confidence intervals (+/-8.7 for the December local government registers, +/-8.8% for the parliamentary register) meaning that the difference between Wales and England and Scotland is not statistically significant.

Base April 2011: England and Wales 38,197 (Parliamentary); 39,641 (Local government) Scotland: 62,399

***The December 2015 electoral registers in Great Britain***

Analysis of the estimates for the 2015 December registers for each of the three countries can be found in the country factsheets published alongside this report:

- [England](#)
- [Scotland](#)
- [Wales](#)

# Appendix B: Logistic analysis

As was the case for previous accuracy and completeness surveys, multivariate analysis was undertaken to explore the demographic characteristics that are associated with higher or lower levels of completeness and accuracy. The purpose of such analysis is to identify which characteristics are associated with a particularly (and statistically significant) high or low level of incidence after taking into account the impact of all of the other associations accounted for in the model, and thereby helping to determine the circumstances which give rise to a particularly high incidence of incomplete or inaccurate entries on the electoral register.

Statistical modelling was undertaken using logistic regression, which is an appropriate regression technique to use where the dependent variable consists of just two possible outcomes:

- For **completeness**, the analysis looks at whether each eligible person at an address is or is not on the register;
- For **accuracy**, the analysis looks at whether an entry on the register corresponds or not to an eligible person currently living at that address.

The difference in the two measures determines the variables that can be included for analysis. Where the starting point for completeness is all eligible adults at the addresses interviewed, both household-level (e.g. tenure, social grade, number of adults in household) and individual demographic variables (e.g. age, gender, ethnicity) are included, given these were collected of all household members.

However, where the starting point for accuracy is the entries on the register for the addresses interviewed then for those appearing on the register but not found to be living at an address, no individual demographic information was (or could reliably have been) collected. Therefore it is only possible to include household-level variables in the accuracy analysis.

## Interpreting the findings

The analysis was run for local government and parliamentary registers. The tables in the following sections show the outputs from the analysis. These include columns showing the b coefficient, the significance level and the odds ratio (Exp(B)).

The grey cells show the “reference” category for each variable, that is, the category for which each of the other categories compares to. To ensure consistency with the analysis conducted for the 2014 Great Britain accuracy and completeness study, the analysis employed the same reference categories.

In the case of completeness, the b coefficients for each category show the impact of being in that category as opposed to the reference category on the probability that an eligible person is on the register. In the case of accuracy the b coefficients show the impact on the probability that an entry in the register is that of an eligible person currently living at that address.

- Where the b coefficient is **negative**, that category is **less likely** to be accurate/complete than the reference category. In such cases, the odds ratio (Exp(B)) will be less than one.
- Where the b coefficient is **positive**, that category is **more likely** to be accurate/complete than the reference category. In such cases, the odds ratio (Exp(B)) will be more than one.

To aid the readability of the tables, coefficients that are statistically significantly different from zero at the 5% level of probability are emboldened.

The results for the local authority and parliamentary register completeness models are shown in Table B1, the accuracy models are shown in Table B2. The key findings - seen across both the register types - mirrored those from previous research and the main findings presented above, namely that:

- The older that people were, the more likely they were to appear on the register, with attainers (those aged under 18) much less likely to do so;
- Those who had been resident at an address for less than two years – and especially those who had been there for no more than a year – were less likely to appear on the register;
- Those living in rented properties - council or private rented - were less likely to appear on the register than owner occupiers (although in Northern Ireland a significant difference was only seen for private renters).

A number of other significant but less strong trends also emerged, again mirroring those seen in previous research:

- **Ethnicity:** Those from a white ethnic background were more likely to appear on the register than those from non-white backgrounds;
- **Nationality:** EU citizens were notably less likely to appear on the local government register (this obviously does not apply to the parliamentary register given that EU citizens are ineligible);
- **Highest qualification:** Those whose highest qualification was a GCSE or lower (as well as those giving an 'other' or 'don't know' response) were less likely to appear on the register than those with a degree or higher;
- **Household social grade:** Those in social grade DE households were less likely to appear on the register;
- **Urbanity:** Those living in rural areas were less likely to appear on the register.

**Table B1: Logistic regression modelling - Completeness in Great Britain.**

<b>COMPLETENESS - GREAT BRITAIN</b>		<b>LOCAL GOVERNMENT</b>			<b>PARLIAMENTARY</b>		
<b>Variables</b>		<b>b coefficient</b>	<b>Significance</b>	<b>Exp(B)</b>	<b>b coefficient</b>	<b>Significance</b>	<b>Exp(B)</b>
<b>Gender</b>	Male	-.093	.153	.911	-.096	.159	.909
	Female						
<b>Age</b>	16-17	<b>-3.832</b>	<b>.000</b>	<b>.022</b>	<b>-4.069</b>	<b>.000</b>	<b>.017</b>
	18-19	<b>-2.476</b>	<b>.000</b>	<b>.084</b>	<b>-2.548</b>	<b>.000</b>	<b>.078</b>
	20-24	<b>-1.707</b>	<b>.000</b>	<b>.181</b>	<b>-1.772</b>	<b>.000</b>	<b>.170</b>
	25-34	<b>-1.371</b>	<b>.000</b>	<b>.254</b>	<b>-1.483</b>	<b>.000</b>	<b>.227</b>
	35-44	<b>-1.228</b>	<b>.000</b>	<b>.293</b>	<b>-1.254</b>	<b>.000</b>	<b>.285</b>
	45-54	<b>-.839</b>	<b>.000</b>	<b>.432</b>	<b>-.889</b>	<b>.000</b>	<b>.411</b>
	55-64	<b>-.593</b>	<b>.000</b>	<b>.553</b>	<b>-.660</b>	<b>.000</b>	<b>.517</b>
	65+						
<b>Duration at address</b>	Up to 1 year	<b>-3.402</b>	<b>.000</b>	<b>.033</b>	<b>-3.421</b>	<b>.000</b>	<b>.033</b>
	More than 1, up to 2 years	<b>-1.714</b>	<b>.000</b>	<b>.180</b>	<b>-1.627</b>	<b>.000</b>	<b>.197</b>
	More than 2, up to 5 years	<b>-.665</b>	<b>.000</b>	<b>.514</b>	<b>-.689</b>	<b>.000</b>	<b>.502</b>
	More than 5 years						
<b>Tenure</b>	Owner occupier						
	Council rent	<b>-.641</b>	<b>.000</b>	<b>.527</b>	<b>-.651</b>	<b>.000</b>	<b>.521</b>
	Private rent	<b>-.730</b>	<b>.000</b>	<b>.482</b>	<b>-.760</b>	<b>.000</b>	<b>.468</b>
	Rent free/other	-.282	.321	.754	-.156	.606	.856
<b>Ethnicity</b>	White	<b>.404</b>	<b>.000</b>	<b>1.497</b>	<b>.352</b>	<b>.002</b>	<b>1.422</b>
	Non-white						
<b>Disability</b>	No	.065	.572	1.067	.051	.661	1.052
	Yes						

<b>Nationality</b>	UK/ROI						
	Commonwealth	-.260	.243	.771	-.291	.194	.747
	EU	<b>-0.828</b>	<b>.000</b>	<b>.437</b>	n/a	n/a	n/a
<b>Highest qualification</b>	Degree						
	Higher Degree	.068	.665	1.071	.081	.632	1.085
	BTEC	-.073	.583	.929	-.035	.799	.965
	A level/ Higher	-.142	.233	.868	-.111	.368	.895
	GCSE	<b>-.408</b>	<b>.000</b>	<b>.665</b>	<b>-.369</b>	<b>.002</b>	<b>.691</b>
	Other	<b>-.407</b>	<b>.008</b>	<b>.666</b>	<b>-.341</b>	<b>.044</b>	<b>.711</b>
	None	<b>-.338</b>	<b>.013</b>	<b>.713</b>	-.263	.061	.769
	Don't know	<b>-.473</b>	<b>.007</b>	<b>.623</b>	<b>-.529</b>	<b>.004</b>	<b>.589</b>
<b>Number of adults in the household</b>	1						
	2	<b>.213</b>	<b>.022</b>	<b>1.237</b>	<b>.214</b>	<b>.026</b>	<b>1.238</b>
	3 to 5	.175	.107	1.192	.212	.064	1.236
	6+	.288	.280	1.334	.415	.144	1.514
<b>Household social grade</b>	AB	<b>.284</b>	<b>.012</b>	<b>1.329</b>	<b>.318</b>	<b>.007</b>	<b>1.374</b>
	C1	<b>.291</b>	<b>.003</b>	<b>1.337</b>	<b>.376</b>	<b>.000</b>	<b>1.457</b>
	C2	<b>.382</b>	<b>.000</b>	<b>1.466</b>	<b>.403</b>	<b>.000</b>	<b>1.496</b>
	DE		.001				
<b>Urbanity</b>	Urban						
	Rural	<b>-.302</b>	<b>.000</b>	<b>.740</b>	<b>-.313</b>	<b>.000</b>	<b>.731</b>
<b>Region</b>	East Midlands						
	Eastern	-.090	.565	.914	-.018	.913	.982
	London	.092	.544	1.096	.106	.513	1.112
	North East	<b>-.571</b>	<b>.002</b>	<b>.565</b>	<b>-.530</b>	<b>.005</b>	<b>.589</b>
	North West	-.188	.208	.829	-.091	.554	.913
	South East	-.003	.984	0.997	.095	.540	1.099
	South West	-.284	.072	.752	-.253	.119	.777

Yorkshire & Humber	-.016	.921	0.984	.022	.894	1.022
West Midlands	-.043	.790	0.958	.013	.939	1.013
Scotland	-.210	.181	.810	-.232	.152	.793
Wales	<b>-.405</b>	<b>.025</b>	<b>.667</b>	-.326	.078	.721
Constant	3.761	.000	43.000	3.732	.000	41.779

Base: Local Government (11,648), Parliamentary (11,155). Nagelkerke R Square values: Local Government (0.457), Parliamentary (0.439).

Note: Table does not show 'Don't know/Refused/not stated categories' (except for Highest qualification where the 'Don't know' category is shown). Coefficients that are statistically significantly different from zero at the 5% level of probability are emboldened.

**Table B2: Logistic regression modelling - Accuracy in Great Britain.**

ACCURACY - GREAT BRITAIN		LOCAL GOVERNMENT			PARLIAMENTARY		
Variables		b coefficient	Significance	Exp(B)	b coefficient	Significance	Exp(B)
<b>Tenure</b>	Owner occupier						
	Council rent	<b>-.636</b>	<b>.000</b>	<b>.529</b>	<b>-.630</b>	<b>.000</b>	<b>.532</b>
	Private rent	<b>-1.557</b>	<b>.000</b>	<b>.211</b>	<b>-1.664</b>	<b>.000</b>	<b>.189</b>
	Rent free/other	<b>-.914</b>	<b>.002</b>	<b>.401</b>	<b>-.950</b>	<b>.001</b>	<b>.387</b>
<b>Number of adults in the household</b>	1						
	2	<b>.601</b>	<b>.000</b>	<b>1.824</b>	<b>.563</b>	<b>.000</b>	<b>1.756</b>
	3 to 5	<b>.797</b>	<b>.000</b>	<b>2.219</b>	<b>.775</b>	<b>.000</b>	<b>2.171</b>
	6+	-.271	.312	.763	-.260	.336	.771
<b>Household social grade</b>	AB	.001	.992	1.001	-.007	.956	.993
	C1	<b>-.242</b>	<b>.025</b>	<b>.785</b>	<b>-.235</b>	<b>.031</b>	<b>.791</b>
	C2	-.005	.969	.995	-.046	.701	.955
	DE						
<b>Urbanity</b>	Urban						
	Rural	.203	.073	1.226	<b>.242</b>	<b>.034</b>	<b>1.274</b>
<b>Region</b>	East Midlands						
	Eastern	.239	.203	1.269	.195	.301	1.215
	London	.043	.796	1.044	-.042	.805	.959
	North East	-.001	.998	.999	.033	.885	1.033
	North West	<b>.419</b>	<b>.025</b>	<b>1.520</b>	<b>.446</b>	<b>.018</b>	<b>1.562</b>
	South East	.245	.163	1.277	.272	.123	1.313
	South West	<b>.413</b>	<b>.040</b>	<b>1.512</b>	<b>.444</b>	<b>.028</b>	<b>1.559</b>
	Yorkshire &	.096	.606	1.101	.129	.488	1.138
	West Midlands	.370	.065	1.448	<b>.394</b>	<b>.050</b>	<b>1.484</b>



	Scotland	.040	.827	1.041	.040	.828	1.041
	Wales	.425	.083	1.530	.441	.072	1.555
	Constant	2.382	.000	10.825	2.388	.000	10.887

Base: Local Government (10,606), Parliamentary (10,344). Nagelkerke R Square values: Local Government (0.100), Parliamentary (0.109).

NOTE: Table does not show 'Not stated' categories. Coefficients that are statistically significantly different from zero at the 5% level of probability are emboldened.

# Appendix C: Technical appendix

## Methodology

The approach taken to delivering this research builds on our previous research studies on the electoral registers: ‘*The completeness and accuracy of electoral registers in Great Britain*’ (published in March 2010), ‘*Great Britain’s electoral registers 2011*’ (published in December 2011) and ‘*The quality of the 2014 electoral registers in Great Britain*’ (published in July 2014). The 2011 study was the first one that used a nationally representative sample to provide an overall estimate of the accuracy and completeness of the registers across Great Britain.

The 2014 study produced estimates of accuracy and completeness immediately before the introduction of Individual Electoral Registration (IER). This study was designed to provide estimates of accuracy and completeness of the first registered published after the transition to IER to compare against the baseline figures generated in 2014.

The research presented in this report was conducted together with GfK.

The findings presented are the result of a large scale house-to-house survey carried out by GfK that across the United Kingdom<sup>11</sup> between January and April 2016.

In Great Britain a total of 6,027 households were interviewed between the 6 January and the 24 April 2016 (5,850 were interviewed face to face and 177 via a postal questionnaire). The number of addresses from Scotland and Wales included in the sample were boosted beyond their proportion in relation to the total population of the UK to enable analysis of the results by country as well as for Great Britain as a whole. Table C1 below shows the totals by country.

**Table C1: Total response (face-to-face and postal surveys).**

	<b>Great Britain</b>	<b>England</b>	<b>Scotland</b>	<b>Wales</b>
<b>Main completed interviews</b>	<b>5,850</b>	<b>4,347</b>	<b>753</b>	<b>750</b>
<i>Postal questionnaires completed</i>	<i>177</i>	<i>115</i>	<i>38</i>	<i>24</i>
<b>TOTAL</b>	<b>6,027</b>	<b>4,462</b>	<b>791</b>	<b>774</b>

## Sampling

The approach in Great Britain involved a multi-stage random sampling strategy, as in the 2014 study, aiming to achieve probability of address selection proportional to

<sup>11</sup> The findings for the study in Northern Ireland are presented in a separate report.

population distribution, and (again similarly to the 2014 study) using 2011 Census Output Areas (OAs) as the primary sampling units (PSUs), within which individual addresses from the Postcode Address File (PAF) were selected. Sampled addresses needed to be somewhat clustered in order to create efficient fieldwork assignments for individual interviewers while avoiding excessive costs due to travel time. As the most relevant population was the number of potential electors, the population used for this purpose was individuals aged 17+ in England and Wales and individuals aged 15+ in Scotland.

The starting point was to select a stratified random sample of local authorities. Local authorities were extracted based on their relevant population size. Within each country, they were stratified by region then population density, and then sorted based on the proportion in NS-SEC<sup>12</sup> analytic classes 1 and 2.<sup>13</sup> The required number of local authorities (86 in England, 15 in each of Scotland and Wales) were then selected from a random starting point with fixed interval sample and probability of selection proportional to population size.

The next stage was to sample five wards within each selected local authority, in line with the 2014 study design, giving 580 wards in total. Wards were selected by using a random start and a fixed interval systematic sampling selection process after sorting based on the proportion in NS-SEC analytic classes 1 and 2. Selection was again conducted with probability proportional to size.

The third stage in the sampling process involved the selection of the PSU which was in this instance, an Output Area (OA). All OAs within the selected wards were listed by their Index of Multiple Deprivation (IMD) score and an alternate selection of 2 or 3 OAs per ward was made proportional to population size.

The final stage was to sample at random a fixed number of addresses from the Postcode Address File (PAF) for each selected OA. A total of 8 addresses were selected per OA in order to achieve an average of 4 interviews per OA. However, only 6 of the addresses were actually issued (7 in London), with the remaining addresses held as reserve sample. A total of 8,862 addresses (6,612 in England, 1,122 in Scotland and 1,128 in Wales) were issued.

### **Addresses removed during fieldwork**

Due to initially high response rates, the decision was taken to remove a number of addresses from the sample to ensure that the target number of interviews was not significantly exceeded. Whilst a number were reintroduced into the sample - and therefore fully worked - during the fieldwork period, a total of 50 addresses were completely removed (20 in England, 18 in Scotland and 12 in Wales).

This resulted in a revised number of 'issued' addresses: 8,812 for Great Britain overall (6,592 in England, 1,104 in Scotland and 1,116 in Wales).

In order to ensure that fieldwork targets were met in England, a number of unproductive addresses were reissued to different interviewers, who made up to three additional calls in an attempt to secure an interview. Reissue fieldwork took

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<sup>12</sup> National Statistics Socio-economic Classification

<sup>13</sup> NS-SEC analytic classes 1 and 2 consist of higher (1) and lower (2) managerial, administrative and professional occupations

place between 11 and 24 April 2016. A total of 254 addresses were reissued, with 130 achieving a productive interview.

## Fieldwork

Upon commencement of fieldwork, interviewers sent out a letter addressed to ‘The householder’. This explained the purpose of the study, why they had been chosen and who would be calling at the household. The letter was signed by the Electoral Commission’s Head of Research in England and Heads of Office in Scotland and Wales. Contact details - a Freephone number and an email address managed by GfK - were provided if more information was required or to allow households to opt-out of the research.

Interviewers were required to make six or more calls to each sampled address before an address could be viewed as unproductive, with the call pattern focused on varying the times/days of the calls. Interviewers were provided with a doorstep screener to introduce the survey and to check the household’s eligibility. Given they would not have been able to register in time to be on the electoral registers used for the survey, households were deemed to be ineligible if the whole household (aged 16+) had moved to the address on or after 1st December 2015.

Interviews could be conducted with any household member aged 16+. Interviews were conducted using computer-assisted personal interviewing (CAPI). The CAPI questionnaire made use of sample information from the electoral register (where applicable), with interviewers required to collect the full names and additional demographic information for each household member aged 16 and over and then match and compare this to the information on the electoral register. This included coding where a discrepancy existed between a name collected during the interview and the name on the register (such a where a name was misspelled). Thus it allowed interviewers to check with respondents when the information collected during the survey did not match that held on the registers.

### Survey response

A total of **6,027 households** in Great Britain were interviewed: 5,850 were interviewed face-to-face with a further 177 interviews conducted using a postal questionnaire

A detailed breakdown of response is provided in Table C2 below. This relates to the main face-to-face fieldwork (i.e. excluding the postal exercise) for Great Britain, although response rates including the postal exercise are also shown in the final rows.

**Table C2: Face-to-face survey response - detailed breakdown of outcome codes.**

Address outcome	Great Britain	
	N	%
<b>TOTAL ISSUED</b>	<b>8812</b>	<b>-</b>
<b>Deadwood</b>	<b>461</b>	<b>5.2%</b>

Property vacant	352	4.0%
Property derelict/demolished	25	0.3%
Non-residential/ institution	84	1.0%
<b>Ineligibles</b>	<b>311</b>	<b>3.5%</b>
Moved in on/after 1st December - ineligible to complete	193	2.2%
Holiday home	38	0.4%
Address inaccessible	20	0.2%
Property not found	42	0.5%
Other property ineligible	18	0.2%
<b>Non Contacts</b>	<b>799</b>	<b>9.1%</b>
Occupied, no contact at address after 6+ calls	220	2.5%
Some contact with suitable respondent but no interview after 6+ calls	152	1.7%
No contact with suitable respondent after 6+ calls	278	3.2%
Unsure if occupied, no contact at address after 6+ calls	149	1.7%
<b>Refusals</b>	<b>1266</b>	<b>14.4%</b>
Head Office refusal (refusal received via survey Freephone/email)	319	3.6%
Suitable respondent refused	914	10.4%
Someone else refused on behalf of a suitable respondent	11	0.1%
Entry to block/scheme refused by warden etc	15	0.2%
Broken appointment - no re-contact	6	0.1%
Respondent requested for responses to be deleted after interview	1	0.0%
<b>Other</b>	<b>115</b>	<b>1.3%</b>
Suitable respondent too ill/frail to participate	51	0.6%
Suitable respondent away during fieldwork	20	0.2%
Suitable respondent does not speak English	9	0.1%
Other	45	0.5%
<b>CAPI Interview</b>	<b>5850</b>	<b>66.4%</b>
Successful interview with suitable respondent	5850	66.4%
<b>Adjusted response rate*</b>	<b>72.9%</b>	
<i>Postal completes</i>	177	
<i>Total completes</i>	6027	
<i>Unadjusted response rate including postal completes</i>	68.4%	
<i>Adjusted response rate including postal completes*</i>	75.1%	

\* The adjusted response rate is calculated by dividing the number of completed interviews by all issued addresses excluding those classified as deadwood and ineligible

## Postal survey

As was the case in previous surveys, it was again decided to follow up a number of unproductive addresses with a postal questionnaire to further boost response. It was necessary to finalise all fieldwork by the end of April 2016 (ahead of local elections on 5 May 2016) and therefore the postal survey was conducted towards the end of the main face-to-face fieldwork period, rather than after the main fieldwork was complete.

Given the need to conduct the postal survey during fieldwork, the selection of addresses for inclusion in the exercise was based on the availability of addresses that had been finalised with an unproductive outcome.

It was decided that addresses that had refused to participate in the initial face-to-face survey and those that had been finalised as a 'non-contact' should be included. The latter included those where no contact had been made as well as those where some had been made (including where an appointment to interview had been broken) -.

However, care was taken to ensure that any addresses where a household member had refused or were too ill to participate were reviewed prior to inclusion to ensure their suitability (e.g. that we were not re-contacting an address where further contact would be inappropriate or likely to lead to complaints). Additionally, addresses where a household member had called the survey helpline or emailed the survey inbox to ask not to take part in the face-to-face survey were not included in the postal survey.

Of the 1,135 questionnaires distributed:

- 195 questionnaires were received by GfK:
  - 177 questionnaires were completed and usable
  - 4 questionnaires were returned completed, but missed important information such as number of adults in the household or names of household members that meant that the data could not be used
  - 14 questionnaires were returned but left completely blank
- 4 questionnaires were returned by the Royal Mail as undelivered
- 936 questionnaires were unreturned

Based on the number of completed and usable questionnaires received, this equates to a **16% response rate**.

## Weighting of the data and confidence intervals

As usual with a population survey of this nature, to ensure that the data collected represented the population of Great Britain as a whole - including down weighting the boosted samples in Scotland and Wales - the data collected were weighted.

The sample is a probability sample of households in which all household members are enumerated. It is thus, in effect, a clustered probability sample of individuals. As

we wished to make inferences about the incidence of phenomena about individuals (completeness) and register entries (accuracy – which itself is defined as individuals currently on the register), the dataset in reality becomes a close approximation of individuals currently resident at sampled addresses rather than households. Two levels of weights were applied (targets shown in Table C3):

- **Household-level weights** were applied initially to all households interviewed covering the number of adults in the household, tenure, urbanity and region. Derelict/vacant properties were also included in the household-level weighting (although where no information existed in relation to number of adults or tenure for these properties they received a weight of 1.00).
- **Individual-level weights** were then applied to all adults aged 16+ within these households for age and gender.

**Table C3: Weighting targets.**

Weighting application	Variable		Great Britain	
Household-level weights	Number of adults in household <sup>14</sup>	1	35.83%	
		2	46.81%	
		3+	17.35%	
	Tenure <sup>15</sup>	Own Outright		30.57%
		Mortgaged		33.55%
		Council Rent		18.24%
		Private Rent		16.30%
		Rent Free/other		1.34%
	Urbanity <sup>16</sup>	Urban <sup>17</sup>		79.99%
		Rural		20.01%
	Region <sup>18</sup>	North East		4.41%
		North West		11.73%
		Yorks & Humber		8.68%
		East Midlands		7.43%
		West Midlands		8.92%
		Eastern		9.55%
		London		12.02%
		South East		13.79%
		South West		8.96%
Wales			5.13%	
Scotland		9.40%		

<sup>14</sup> Source: Census 2011.

<sup>15</sup> Ibid.

<sup>16</sup> Source: Official definitions based on May 2014 residential counts.

<sup>17</sup> Urban properties were defined as 'settlements with more than 10,000 resident population' which matches the classification used in England and Wales

(<https://www.gov.uk/government/statistics/2011-rural-urban-classification>). Whilst Scotland and Northern Ireland use their own classifications which include different thresholds, it was decided to use a standard threshold across all countries for the purpose of analysis and weighting.

<sup>18</sup> Source: Royal Mail Postal Adresse File (PAF) household counts May 2014.

Weighting application	Variable		Great Britain
Individual-level weights	Gender <sup>19</sup>	Female	51.23%
		Male	48.77%
	Age <sup>20</sup>	16-17	2.91%
		18-19	2.99%
		20-24	8.22%
		25-34	16.67%
		35-44	15.97%
		45-54	17.40%
		55-64	14.03%
		65+	21.81%

Given that the population data used to weight the data includes those that are ineligible to be registered to vote, the weighting was therefore applied to all adults aged 16+ regardless of whether or not they were actually eligible for inclusion in the completeness analysis, i.e. based on their age, citizenship and when they moved to their current address, despite the fact that the final analysis excluded such respondents. The following tables summarise the criteria used for determining which cases were included in the final analysis

**Table C4: Completeness filters - Local Government and Parliamentary registers**

COMPLETENESS: All household members <u>meeting</u> the following criteria:		
	Local Government	Parliamentary
<b>Citizenship</b>	UK/RoI, Commonwealth or EU	UK/RoI or Commonwealth
<b>Age</b>	England/Wales/NI: 18+ or turns 18 during the lifetime of the register, i.e. on or before 30th November 2016 Scotland: all age 16+ at 30th November 2015	18+ or turns 18 during the lifetime of the register, i.e. on or before 30th November 2016
<b>Residency</b>	Must have moved into property prior to 1st December 2015	

**Table C5: Accuracy filters - Local Government and Parliamentary registers.**

ACCURACY: All register entries from households interviewed, plus deadwood (derelict/vacant) properties, <u>excluding</u> :		
	Local Government	Parliamentary
<b>Citizenship</b>	No exclusions	EU citizens (those with a G or K marker on the register)
<b>Age</b>	No exclusions	Entries in Scotland that will not turn 18 during the lifetime of the register, i.e. on or before 30th November 2016

<sup>19</sup> Source: ONS Mid Year Population Estimates 2014.

<sup>20</sup> Source: ONS Mid Year Population Estimates 2014



## Social Grade Definitions

Social Grade classification is a commonly used measure in market research which groups people into six categories: A, B, C1, C2, D and E. Social Grade is recorded about survey respondents by interviewers using a series of questions and the classification assigns every household to a grade, based upon the occupation and employment status of the Chief Income Earner.

A summary of the occupation groups included in each category is shown below.

**Table C6: Social grade definitions.**

Grade	Occupation groups
A	Professional people, very senior managers in business or commerce or top-level civil servants.
B	Middle management executives in large organisations, with appropriate qualifications. Principal officers in local government and civil service. Top management or owners of small business concerns, educational and service establishments.
C1	Junior management, owners of small establishments, and all others in non-manual positions. Jobs in this group have very varied responsibilities and educational requirements.
C2	All skilled manual workers, and those manual workers with responsibility for other people.
D	All semi-skilled and un-skilled manual workers, apprentices and trainees to skilled workers.
E	All those entirely dependent on the state long-term, through sickness, unemployment, old age or other reasons. Those unemployed for a period exceeding six months. Casual workers and those without a regular income.

## Confidence intervals

Surveys are conducted because it is much more practical and cost effective than interviewing an entire population. However, we need to know how close our survey estimates are to the 'true' figures if we had interviewed the entire population. Confidence intervals are a statistical device which allows us, using our survey results, to estimate the variation that might be anticipated because a sample rather than an entire population was interviewed. This is essentially a range where the true (overall population) value is likely to sit. In general, the larger the sample, the more sure we can be of the accuracy of our survey estimates, though subject to diminishing returns at larger sample sizes. In other words, if we were to conduct the same survey again we would be more likely to get a similar result if we had a large sample than a smaller sample.

Table C7 indicates the confidence intervals associated with the completeness and accuracy findings for this survey for Great Britain calculated based on the effective sample size<sup>21</sup>). When calculating confidence intervals, we typically use a 95% confidence interval. This means that we can be 95% sure that the survey estimate reflects the true figure for the entire population (other than any possible variation introduced by response bias or measurement error).

The table shows that, for example, for the local government completeness figure of 83.9% in Great Britain, the confidence interval would be up to  $\pm 0.7$ ppts. This means that we could be 95% sure that the true local government completeness figure in the (overall) population of Great Britain would be between 83.2% and 84.6%. The confidence intervals associated with the completeness and accuracy findings for each variable analysed in this study can be found below.

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<sup>21</sup> The effective sample size describes the effect of the weighting on the accuracy of survey estimates. It is dependent upon the size of weights applied to respondents: the more the weights deviate from 1, the smaller the effective sample size.

**Table C7: Completeness and Accuracy Confidence Intervals - Great Britain**

		Completeness		Accuracy	
		Local Govt Register	Parliamentary Register	Local Govt Register	Parliamentary Register
		+/-%	+/-%	+/-%	+/-%
Total	Total	0.7	0.7	0.6	0.6
Gender	Male	1.0	1.0	0.3	0.3
	Female	1.0	1.0	0.3	0.3
Age	16-17	9.1	9.6	6.6	7.8
	18-19	5.5	5.6	3.5	3.4
	20-24	3.2	3.2	1.1	1.1
	25-34	2.3	2.3	0.7	0.8
	35-44	1.9	1.9	0.6	0.6
	45-54	1.5	1.4	0.6	0.6
	55-64	1.3	1.3	0.4	0.4
	65+	0.8	0.8	0.3	0.3
	NET: 18+	0.7	0.7	0.2	0.2
Tenure	Own outright	0.7	0.7	0.6	0.6
	Mortgaged/ shared own	1.1	1.1	0.8	0.8
	Council rent	2.8	2.8	2.1	2.1
	Housing Association rent	3.2	3.3	2.5	2.6
	NET: Social renters	2.1	2.1	1.6	1.6
	Private rent	2.6	2.8	2.4	2.7
	Rent free/other	5.7	5.9	4.7	4.9
Social grade	AB	1.2	1.2	0.9	0.9
	C1	1.4	1.4	1.1	1.1
	C2	1.5	1.5	1.1	1.1
	DE	1.5	1.5	1.1	1.1
Adults in HH	1	1.8	1.8	1.6	1.6

		Completeness		Accuracy	
		Local Govt Register	Parliamentary Register	Local Govt Register	Parliamentary Register
		+/-%	+/-%	+/-%	+/-%
	2	1.0	1.0	0.7	0.7
	3 to 5	1.3	1.3	0.8	0.8
	6+	7.1	7.1	6.2	6.3
Duration at address	Up to 1 year	2.9	3.1	2.3	2.5
	More than 1, up to 2 years	3.0	3.1	1.1	1.1
	More than 2, up to 5 years	1.8	1.9	0.7	0.8
	More than 5, up to 10 years	1.4	1.4	0.7	0.7
	More than 10, up to 16 years	1.1	1.1	0.4	0.4
	Over 16 years	0.7	0.7	0.3	0.3
	Nationality	UK + ROI	0.7	0.7	0.2
Non-UK/ROI		3.9	7.5	2.5	5.4
EU		4.6	-	3.3	-
Commonwealth		7.4	7.5	5.4	5.4
Urbanity	Urban	0.8	0.8	0.7	0.7
	Rural	1.5	1.5	1.1	1.1
Region	East Midlands	2.8	2.8	2.3	2.3
	Eastern	2.3	2.3	1.8	1.9
	London	2.1	2.0	1.8	1.9
	North East	4.1	4.2	3.3	3.3
	North West	2.2	2.1	1.6	1.6
	South East	1.8	1.8	1.6	1.6
	South West	2.7	2.7	2.2	2.3
	West Midlands	2.3	2.2	1.9	2.0

		Completeness		Accuracy	
		Local Govt Register	Parliamentary Register	Local Govt Register	Parliamentary Register
		+/-%	+/-%	+/-%	+/-%
	Yorkshire & Humber	2.6	2.6	2.3	2.3
	NET: England	0.8	0.8	0.7	0.7
	NET: England (excl. London)	0.9	0.9	0.7	0.7
	Scotland	1.9	1.9	1.5	1.6
	Wales	1.9	1.9	1.4	1.4
	NET: Great Britain	0.7	0.7	0.6	0.6
Council type	District	1.2	1.2	0.9	0.9
	London Borough	2.1	2.0	1.8	1.9
	Met Borough	1.9	1.8	1.6	1.6
	English Unitary	1.7	1.7	1.4	1.4
	Scottish Unitary	1.9	1.9	1.5	1.6
	Welsh Unitary	1.9	1.9	1.4	1.4
	NET: Unitary	1.2	1.2	0.9	0.9
Highest qualification	Higher degree	2.5	2.5	1.3	1.4
	Degree	1.6	1.6	0.5	0.5
	BTEC	2.2	2.2	0.7	0.7
	A level/ Higher	2.1	2.1	0.7	0.7
	GCSE	1.6	1.6	0.5	0.5
	Other	2.7	2.5	1.0	1.1
	None	1.5	1.5	0.5	0.5
Month moved in (1)	Before 1st July 2015	5.2	5.6	3.6	3.9
	After 1st July 2015	3.3	3.6	3.8	3.9
Month moved in (2)	Before 1st May 2015	6.7	7.4	6.0	7.0
	After 1st May 2015	3.2	3.4	2.4	2.5

		Completeness		Accuracy	
		Local Govt Register	Parliamentary Register	Local Govt Register	Parliamentary Register
		+/-%	+/-%	+/-%	+/-%
Month moved in (in 2015)	15-Jan	13.5	-	-	-
	15-Feb	15.8	-	-	-
	15-Mar	14.1	14.9	-	-
	15-Apr	10.8	11.8	7.4	9.0
	15-May	12.0	12.7	11.4	-
	15-Jun	10.8	11.4	10.5	11.1
	15-Jul	10.3	10.4	9.7	10.0
	15-Aug	7.5	8.2	-	-
	15-Sep	6.1	6.8	-	-
	15-Oct	7.1	8.4	-	-
	15-Nov	5.0	5.5	-	-
Ethnicity	White	0.8	0.7	0.2	0.2
	Asian	2.9	2.9	1.1	1.1
	Black	5.0	5.0	3.0	3.1
	Mixed	7.7	7.7	4.9	5.0
	Other	10.0	9.7	6.2	6.6
Disability	Yes - mental condition	5.4	5.4	2.6	2.7
	Yes - physical condition	2.0	2.0	0.6	0.7
	Yes - disability	3.4	3.3	1.4	1.4
	Yes - other	7.2	7.2	6.0	6.0
	NET: Yes	1.8	1.8	0.5	0.5
	None	0.8	0.8	0.2	0.2
Relationship with form filler	Form filler (usually/ sometimes)	1.0	1.0	0.3	0.3
	Partner/ spouse	1.2	1.2	0.4	0.4

		Completeness		Accuracy	
		Local Govt Register	Parliamentary Register	Local Govt Register	Parliamentary Register
		+/-%	+/-%	+/-%	+/-%
	Son/ daughter	2.4	2.4	0.9	0.9
	Parent	4.2	4.2	2.4	2.3
	Another family member	6.1	6.4	3.0	3.2
	Lodger/ housemate/ other person	6.2	7.2	6.3	7.3
	Someone outside household/ no-one fills in official forms	6.9	6.9	3.9	4.0
Registered in the UK	Yes	0.9	0.9	0.2	0.2
	No	5.1	5.4	-	-
	Don't know	8.3	8.7	9.8	-
Registered at address	Yes	0.8	0.8	0.2	0.2
	No	3.7	3.7	7.8	-
	Don't know	6.9	7.1	7.2	8.2
Attitudes towards electoral registration	It's not really worth registering at all	6.4	6.5	3.6	3.6
	It's only worth registering to vote in order to secure a better credit reference (for taking out mortgages, credit cards etc)	7.3	7.7	4.4	4.7
	People should only register to vote if they care who wins an election	3.2	3.2	1.2	1.2
	It's everyone's duty to register to vote	1.0	0.9	0.2	0.2

		<b>Completeness</b>		<b>Accuracy</b>	
		<b>Local Govt Register</b>	<b>Parliamentary Register</b>	<b>Local Govt Register</b>	<b>Parliamentary Register</b>
		<b>+/-%</b>	<b>+/-%</b>	<b>+/-%</b>	<b>+/-%</b>
Attitudes towards voting	It's not really worth voting	5.0	5.1	2.4	2.4
	People should only vote if they care who wins	2.7	2.7	0.9	0.9
	It's everyone's duty to vote	1.0	1.0	0.2	0.2
Whether voted in UK Parliamentary Election (May 2015)	Yes	0.8	0.9	0.2	0.2
	No - didn't vote	2.7	2.9	0.9	0.9
	No - was not eligible	10.2	14.9	8.6	-



# Appendix D: The introduction of Individual Electoral Registration

## Systems of electoral registration

According to International IDEA, standards of voter registration should ensure that the electoral register is comprehensive, inclusive, accurate and up to date, and the process must be fully transparent. The process should facilitate the registration of a qualified voter, whilst at the same time safeguarding against the registration of ineligible persons.<sup>22</sup>

Broadly speaking, systems of electoral registration in the world can be divided in three categories:

- A. Periodic lists:** this system produces a new register at regular intervals – annually or more/less frequently – and the list is generally compiled through an annual canvass. Registration can be compulsory or voluntary. It is regarded as effective to track population mobility and does not require sophisticated data-sharing infrastructure. However, it can be challenging as it requires good coverage of household enumeration and the quality of the information deteriorates during the lifetime of the register.
- B. Continuous lists:** it relies on matching with other government held data and requires different levels of individual initiative. Regarded as cost-effective – provided that other databases capture address changes and information promptly – it needs a strong government database system and public consent to data-sharing.
- C. Civil registry:** this is the main system in use in continental Europe by countries that held a population register maintained centrally. The electoral register is simply derived from the civil register: provided the main register works, it produces accurate lists of electors with no significant financial costs. However, it is expensive to set up in the first place and can raise concerns among the public over privacy and data loss.

The responsibility to compile the electoral register varies across countries. In some counties, the register are compiled by a national centralised agency, in some others the register is locally maintained while some other ones the responsibility is of both central agency and local government.

In Great Britain, each local authority maintains its own electoral register which means there are 380 in total for the whole country.

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<sup>22</sup> International IDEA and the Office for Democratic Institutions and Human Rights (OHCHR), *International Electoral Standards: Guidelines for reviewing the legal framework of elections* (2002), page 45.



# The transition

The 2013 autumn canvass – the last one conducted under the household registration system - was postponed to facilitate the start of the transition and conducted between end of 2013 and beginning of 2014.<sup>23</sup> The last fully revised electoral registers compiled under the old system were then published in February 2014 in England and in March 2014 in Wales and Scotland.

As part of our programme to monitor the transition Individual Electoral Registration (IER), we conducted a study on the quality of these registers and found them to be 87% accurate and 85% complete.<sup>24</sup>

The transition then started in June 2014 in England and Wales and in September in Scotland. Figure D1 shows the timeline for the transition with key stages marked.

## Confirmation Live Run

The first stage of the transition was the 'Confirmation Live Run' (CLR) which took place in June 2014 in England and Wales and in September 2014 in Scotland.

This involved matching existing register entries against the Department for Work and Pensions (DWP) database and locally held data in order to identify which electors could be automatically transferred to the new IER registers.

Based on the CLR data matching:

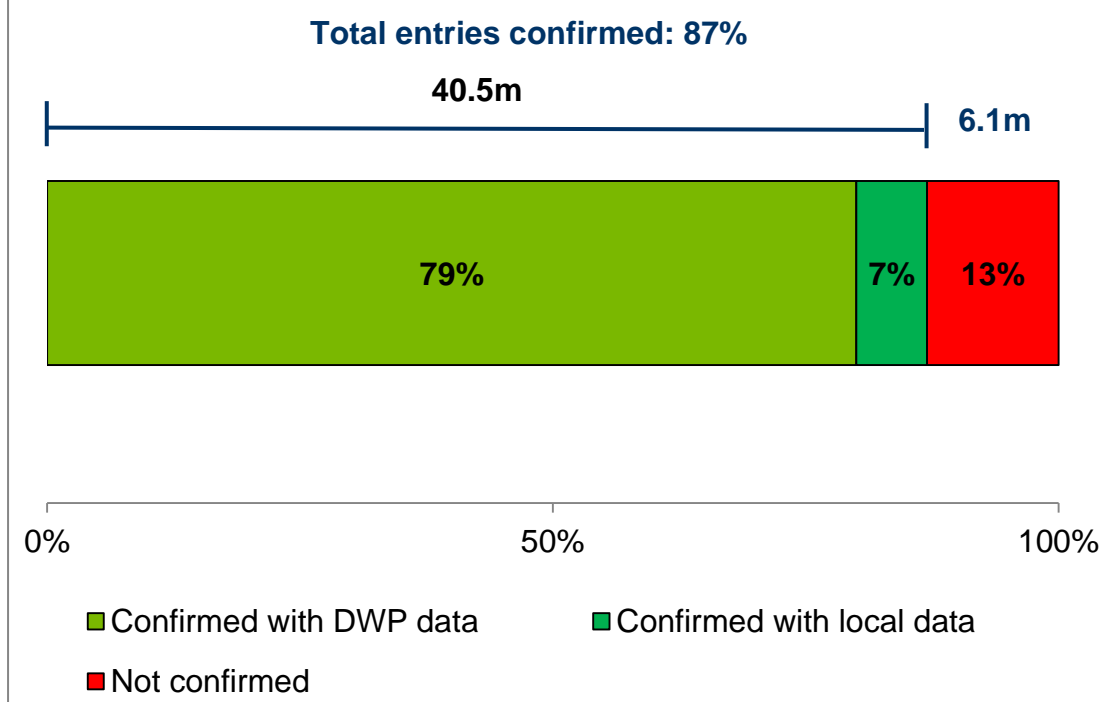
- **87% of records – equivalent to 40.5 million register entries – were positively matched.** These electors were transferred directly to the new IER register;
- **13% of records – approximately 6.1 million entries – could not be matched.** Individuals whose entry could not be matched were written to by their local Electoral Registration Officer (ERO) and asked to provide personal identifiers: National Insurance Number (NINO) and date of birth.

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<sup>23</sup> Fully revised registers are normally published in December each year at the end of the autumn canvass.

<sup>24</sup> The Electoral Commission, [The quality of the 2014 electoral registers in Great Britain](#) (July 2014). Figures are for Great Britain local government registers.

**Figure D2: Confirmation Live Run results in Great Britain.**



The scale of the challenge facing EROs varied across local authorities in Great Britain, ranging from only 59% of entries confirmed in Hackney to 97% in Epping Forest.

Our analysis on the CLR results – carried out at ward level using demographic data associated with low level of registration - found that areas with higher concentration of private renters, young people, students and people not born in the UK had a lower match rate.<sup>25</sup>

## Write-out and first IER registers

Following the CLR, a ‘write-out’ exercise was conducted which involved contacting all electors whose entry was sent for matching. In 2014, the ‘write-out’ replaced the traditional full annual canvass which generally takes place in autumn.

Those electors that were matched received a letter informing them their entry had been automatically transferred to the new registers and needed to take no action.

At the same time those who were not successfully data-matched in the CLR process were informed that they needed to re-register by providing personal identifiers.<sup>26</sup>

<sup>25</sup> The Electoral Commission, [Confirmation Live Run 2014 \(CLR\) in England and Wales: report and analysis](#) (October 2014); [Confirmation Live Run 2014 \(CLR\) in Scotland: report and analysis](#) (November 2014).

<sup>26</sup> Anyone who could not provide the required information – National Insurance Number and date of birth – could use an exceptions or attestation process in order to become individually registered. The exceptions process is used by EROs when an elector cannot be matched against DWP records or

If the local ERO did not obtain the necessary information from an unmatched elector and could not find enough evidence that the individual had moved, the **entry could be retained on the register until the end of the transitional period to the new IER system**. At the end of the transition, entries that were still retained would be removed.

As a result of the write out, **the number of register entries being 'retained' reduced from 6.1 million after the CLR stage to 2.8 million**.

However, the lack of comprehensive household canvass activity also resulted in a reduction in register entries. The first revised registers published under IER in December 2014 contained fewer entries (-2%) than the ones published in February/March 2014.<sup>27</sup>

## May 2015 elections

We collected electoral data for the registers in use at the elections that took place in May 2015. Figures showed a notable increase since December 2014/March 2015 (+3%) and February/March 2014 (+1%) as a result of the interest generated by the May 2015 elections.

However, the data also showed that approximately **1.9 million register entries were still being retained in May 2015** (4% of all entries). Retained entries as a percentage of total register entries varied by local authority, ranging from 0% to 23%.<sup>28</sup>

### Our recommendation on the end of the transition

The Commission's report in June 2015 set out our recommendation to the UK Government on the timing of the end of the transition – the point at which EROs would be required to remove all retained entries.

We anticipated that the annual canvass of households in 2015 would significantly reduce the 1.9 million entries we identified in May 2015.

At the time the Commission recommended that the end of the transition should not be brought forward as we had no data on which to judge the nature of the entries that would be removed. In the absence of data we also saw a risk that removing the entries, ahead of the planned May 2016 polls, would put the onus on individual voters to need to re-register rather than on EROs to check their accuracy of these entries.

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using local data sources, or where the applicant cannot provide some or all of the required personal identifiers required to register. It involves asking the applicant to provide documentary evidence to prove their identity. Where the applicant cannot be matched and cannot provide the required personal identifiers or documentary evidence, the *attestation* process is used. This involves a 'person of good standing' on the electoral register verifying the identity of the applicant. Further information on both processes is available in [Part 4 of our guidance for Electoral Registration Officers](#).

<sup>27</sup> The Electoral Commission, [Analysis of the December 2014 registers in England and Wales](#) (February 2015).

<sup>28</sup> <sup>28</sup> The Electoral Commission, [Assessment of progress with the transition to Individual Electoral Registration](#) (June 2015).

A Government Order to bring forward the end of the transition to IER from December 2016 to December 2015 was made and passed by Parliament, meaning that electors who were being retained on the registers under the transitional provisions on 1 December 2015 were to be removed upon publication of the revised registers.

## 2015 canvass and the revised registers

From 1 July 2015, EROs across Great Britain carried out comprehensive household canvass activity which, unlike in 2014/15, involved sending Household Enquiry Forms (HEFs) – designed to identify who is resident at an address and eligible to be registered – to all properties. As part of the canvass, any new potential electors identified by each ERO were sent an invitation to register and a registration application form.

Additionally, for those retained entries where the ERO believed the elector was still resident and eligible to remain registered at that address, there were specified steps in law that EROs were required to go through to try to ensure that the individual successfully completed an individual registration application, including sending an invitation to register to that individual and following up any non-responses with two reminders and at least one personal visit.

The only circumstances in which this was not the case were where, from checking any records available to the ERO, they had reason to believe that the person is no longer resident at that address (in which case they would take steps to remove the entry from the register), or if they had made an application to register.

EROs were required to publish their revised registers by 1 December 2015.<sup>29</sup> As set out above, all remaining entries relating to electors who were not registered individually were to be removed at this point.

### December 2015 registers

In December 2015, at the end of the transition, there were fewer electoral register entries than on the last fully revised registers compiled under the household registration system in February/March 2014 (-3%).

Approximately **800,000 entries were removed from the registers** because of the end of IER transitional arrangements.<sup>30</sup> This equals to approximately 1.8% of the total number of entries on the December 2015 registers.

Overall, 13% of the 6.1 million entries unmatched at the CLR stage could not be resolved and had to be removed at the end of the transition.

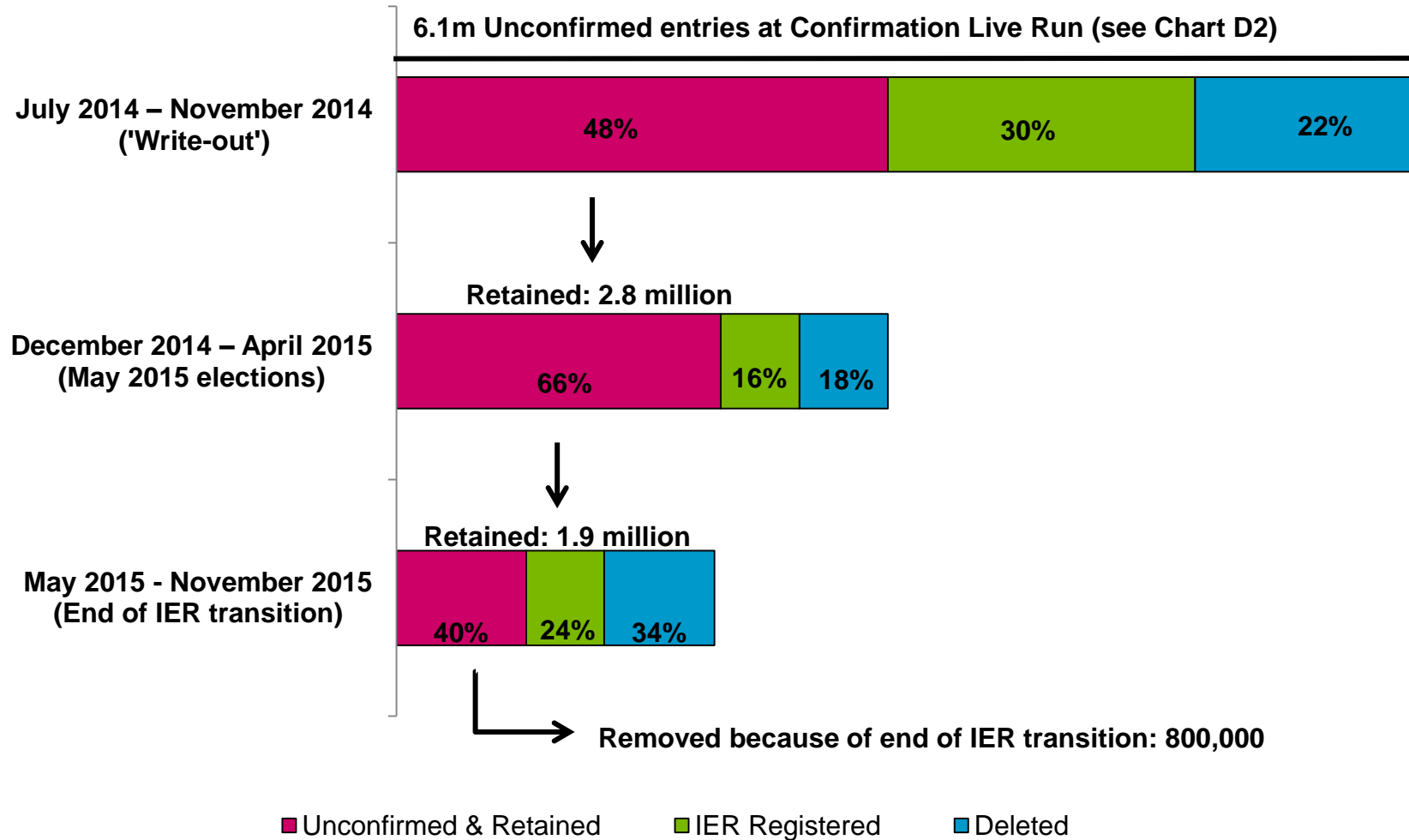
There was significant variation at local authority level in the proportion of electors removed due to the end of the transition. More information can be found in our [February 2016 report](#).

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<sup>29</sup> EROs were required by law to publish their revised register by 1 December 2015 except in cases where there is a by-election in their area during the period of the canvass (1 July – 1 December 2015), in which case the publication of the register could be postponed until up to 1 February 2016.

<sup>30</sup> This figure has been updated since our last February 2016 report as we subsequently received the figure for Hackney which was missing at the time of publication.

**Figure D3: Entries retained on the registers from July 2014 (Confirmation Live Run process) to December 2015 (end of IER transitional arrangements).**



# Appendix E: Electoral Registration Officers in Scotland

**Table E1: Local authorities and Electoral Registration Officers in Scotland.**

<b>Electoral Registration Officer<sup>31</sup></b>	<b>Local council area</b>
Ayrshire Valuation Joint Board	East Ayrshire
	North Ayrshire
	South Ayrshire
Central Scotland Valuation Joint Board	Clackmannanshire
	Falkirk
	Stirling
Dumfries and Galloway Council	Dumfries and Galloway
Dunbartonshire and Argyll & Bute Valuation Joint Board	Argyll and Bute
	East Dunbartonshire
	West Dunbartonshire
Dundee City Council	Dundee City
Fife Council	Fife
Glasgow City Council	Glasgow City
Grampian Valuation Joint Board	Aberdeen City
	Aberdeenshire
	Moray
Highland and Western Isles Valuation Joint Board	Eilean Siar
	Highland
Lanarkshire Valuation Joint Board	North Lanarkshire
	South Lanarkshire
Lothian Valuation Joint Board	City of Edinburgh
	East Lothian
	Midlothian
	West Lothian
Orkney & Shetland Valuation Joint Board	Orkney Islands
	Shetland Islands
Renfrewshire Valuation Joint Board	East Renfrewshire
	Inverclyde
	Renfrewshire
Scottish Borders Council	Scottish Borders
Tayside Valuation Joint Board	Angus
	Perth and Kinross

<sup>31</sup> There are 15 EROs in Scotland – representing 32 council areas. Scottish councils may appoint either one of their officers, an officer of an adjoining council, or an officer appointed by a combination of councils to act as the ERO for the council. 10 EROs are appointed by groups of two, three or four councils, representing 27 of the 32 Scottish councils. The remaining five councils have appointed one of their own officers to act solely for their own area.