

Census 2001

One Number Census Quality Assurance information: Quality Assurance themes

Borrowing strength for babies

Problem

The Quality Assurance (QA) panel paid particular attention to the ONC estimates for 0-year-olds when they were reviewed during the QA process. Several issues were raised on review of the ONC estimates for 0-year-olds, one of which related to the derived underenumeration rate for this group (the census count as a percentage of the ONC estimate).

In some Estimation Areas (EAs) no underenumeration adjustments were made for babies because the Census Coverage Survey (CCS) did not find any additional 0-year-olds missed by the census. In one sense this is not surprising, as the sample sizes for a single age population in the CCS were generally small. However, the QA panel felt that it was implausible that there had been no 0-year-olds missed by the Census and agreed in these areas that an adjustment to the ONC estimate for babies should be made.

In other areas, the underenumeration rates for 0-year-olds was higher than the underenumeration rates for the young age groups (i.e. the 1 to 4 year olds). Moreover, the QA panel was concerned about the ONC estimate for an EA if it was notably different from the comparator data sources, particularly the birth registration data supplied by the Population Estimates Unit (PEU) in ONS. Given that babies are a difficult group to enumerate, the QA panel did not expect the underenumeration rate for 0-year-olds to be lower than for the 1-4 year old age group. In areas where this did occur an adjustment was made to the ONC estimate for babies.

Actions

Several approaches were considered to adjust the ONC estimates for babies where they were deemed necessary. One approach involved applying the ONC Contingency strategy. This

approach used the borrowing strength strategy (outlined in detail in “A Quality Assurance and Contingency Strategy for the One Number Census” (ONS (2001)) available from the ONS website at www.statistics.gov.uk/census2001/pdfs/oncinfopaper.pdf). This method used the mean adjustment made for the 0-year-olds across the five most similar Local Authority Districts (LADs) for each of the LADs within the EA in question. On review of the results the QA panel felt that this method was implausible particularly when the area under investigation had a higher underenumeration rate than the five most similar areas. The second proposed approach involved borrowing strength within the EA under investigation from all other age groups. This involved using the overall estimated underenumeration for each LAD as the adjustment that should be made to babies. The third approach involved borrowing strength within each LAD from the age group that is most similar – the 1-4 year olds. This method used the mean estimated underenumeration for males and females 1-4 as the adjustment that should be made for babies. It was agreed after investigating these approaches that the third approach – borrowing strength from the 1-4 year olds within each LAD would be intuitively more plausible and in line with the collapsing strata strategy.

Results

The criteria on which an adjustment was based looked at the difference in underenumeration between the 1-4s and babies and also the overall difference between the ONC estimate of babies and the birth registration data supplied by PEU. If these criteria were met (i.e. estimated underenumeration was higher for babies, and the estimate was lower than the comparator data) then the undercount adjustments applied to the 1-4 year olds were used for the 0-year-olds. The ONC estimates for 0-year-olds for the EAs and LADs on the following page were subjected to adjustments.

Code	LAD	Estimation Area Code	Estimation Area
37UB	Ashfield	KJ	North Nottinghamshire
00AB	Barking & Dagenham	LJ	Barking & Dagenham, Redbridge and Waltham Forest
37UC	Bassetlaw	KJ	North Nottinghamshire
00EX	Blackburn with Darwen	NJ	East Lancashire
17UC	Bolsover	KH	Dales and North Derbyshire
00BL	Bolton	NS	Bolton and Wigan
00MA	Bracknell Forest	SN	East Berkshire
26UB	Broxbourne	KY	South & East Hertfordshire
30UD	Burnley	NJ	East Lancashire
00BM	Bury	NR	North Greater Manchester
00AG	Camden	LA	Central London
17UD	Chesterfield	KH	Dales and North Derbyshire
45UD	Chichester	SQ	North Sussex
00AA	City of London	LA	Central London
34UB	Corby	KT	Northants
00CQ	Coventry	KO	Coventry and Solihull
45UE	Crawley	SQ	North Sussex
00AH	Croydon	LG	Sutton and Croydon
34UC	Daventry	KT	Northants
17UF	Derbyshire Dales	KH	Dales and North Derbyshire
19UD	East Dorset	SH	Wessex
26UD	East Hertfordshire	KY	South & East Hertfordshire
34UD	East Northamptonshire	KT	Northants
37UE	Gedling	KJ	North Nottinghamshire
00AM	Hackney	LB	Islington, Hackney & Tower Hamlets
26UE	Hertsmere	KY	South & East Hertfordshire
17UH	High Peak	KH	Derby and North Derbyshire
45UF	Horsham	SQ	North Sussex
30UG	Hyndburn	NJ	East Lancashire
00AU	Islington	LB	Islington, Hackney & Tower Hamlets
00AW	Kensington & Chelsea	LA	Central London
34UE	Kettering	KT	Northants
00AX	Kingston upon Thames	LF	Richmond, Kingston upon Thames & Merton
00AY	Lambeth	LC	Lambeth & Southwark
37UF	Mansfield	KJ	North Nottinghamshire
00BA	Merton	LF	Richmond, Kingston upon Thames & Merton
45UG	Mid Sussex	SQ	North Sussex
24UJ	New Forest	SH	Wessex
37UG	Newark and Sherwood	KJ	North Nottinghamshire
19UE	North Dorset	SH	Wessex
17UJ	North East Derbyshire	KH	Derby and North Derbyshire
34UF	Northampton	KT	Northants
00BP	Oldham	NR	North Greater Manchester
30UJ	Pendle	NJ	East Lancashire

Code	LAD	Estimation Area Code	Estimation Area
19UG	Purbeck	SH	Wessex
00BC	Redbridge	LJ	Barking & Dagenham, Redbridge and Waltham Forest
00BD	Richmond upon Thames	LF	Richmond, Kingston upon Thames & Merton
00BQ	Rochdale	NR	North Greater Manchester
30UM	Rossendale	NJ	East Lancashire
00MD	Slough	SN	East Berkshire
00CT	Solihull	KO	Coventry and Solihull
17UK	South Derbyshire	KH	Derby and North Derbyshire
34UG	South Northamptonshire	KT	Northants
00BE	Southwark	LC	Lambeth & Southwark
00BF	Sutton	LG	Sutton and Croydon
26UJ	Three Rivers	KY	South & East Hertfordshire
00BG	Tower Hamlets	LB	Islington, Hackney & Tower Hamlets
00BH	Waltham Forest	LJ	Barking & Dagenham, Redbridge and Waltham Forest
34UH	Wellinborough	KT	Northants
26UL	Welwyn Hatfield	KY	South & East Hertfordshire
19UH	West Dorset	SH	Wessex
00BK	Westminster	LA	Central London
19UJ	Weymouth and Portland	SH	Wessex
00BW	Wigan	NS	Bolton and Wigan
00ME	Windsor and Maidenhead	SN	East Berkshire
00MF	Wokingham	SN	East Berkshire