

Result of 1971 linkage exercise, based on mapping back urban/rural status from 1981 ward

1971 urban_rural indicator				
	Frequency	Percent	Valid Percent	Cumulative Percent
urban (all non-moving LS members mapped to 81 urban ward)	416543	80.2	80.2	80.2
rural (all non-moving LS members mapped to 81 rural ward)	76634	14.8	14.8	95.0
urban (majority of non-mov LSMs mapped to 81 urban ward)	14488	2.8	2.8	97.8
rural (majority of non-mov LSMs mapped to 81 rural ward)	6022	1.2	1.2	99.0
urban (no non-mov LSMs, but ward is in City of London)	17	.0	.0	99.0
rural (no non-mov LSMs, but low pop.ward in pre-74 RD)	4175	.8	.8	99.8
classif not poss (no non-mov LSMs, & not in pre-74 RD)	326	.1	.1	99.9
classif not poss (no non-mov LSMs, ward is in RD with higher pop)	492	.1	.1	100.0
classif not possible (other)	407	.1	.1	100.0
Total	519104	100.0	100.0	

The Case to Ward Linkage Process

Before the ONS Longitudinal Study data could be analysed on a rural dimension they needed to be allocated to ward areas for 1971, 1981, 1991 and 2001. For 1981-2001 we had look-up tables allocating an urban/rural status to each ward, but for the 1971 Census time point the process was not at all straightforward.

As we did not have a ward-level urban/rural mapping for 1971, we adopted an algorithm of taking each individual 1971 ward and attempting to find 'representative' LS members (LSMs) in that ward who we knew had stayed at the same address between 1971 and 1981. Then, looking at the assigned urban/rural status of the ward of their residence in 1981, we were able to allocate that same status to their 1971 ward of residence, even though all wards had been radically restructured by the 1974 local government re-organisation in the intervening decade.

Of course, as one would expect, some 1971 wards mapped partially onto an 'urban' 1981 ward and partly onto a 'rural' 1981 ward. But luckily the great majority mapped exclusively onto the same type of ward.

This mapping process yielded information for 12,714 of the 16,423 1971

wards in England and Wales. The other 3,709 wards had no representative 'non-moving' LS members.

Of these 12,714, there were 5,718 wards whose non-moving LSMs were exclusively in 'urban' wards in 1981.

There were 6,661 wards whose non-moving LSMs were exclusively in 'rural' wards in 1981.

There were 335 wards with some non-moving LSMs in 'urban' 1981 wards, and some in 'rural' 1981 wards. Most of these had a marked predominance towards one or the other, but where this was not the case, the case was labelled according to the majority, erring on the side of 'rural' in the one or two wards where the population was exactly equal. This yielded a further 169 'urban' wards and 166 'rural'.

Of the remaining 3,709 wards which had no non-moving LS members in, we classified them as rural if they were in a pre-74 Rural District with a ward population of under 1,000 (this gave a 'rural' label to another 2,136 wards).

Those wards remaining unclassified were:

(a) those in a pre-74 RD with population over 1,000 (36 wards)

(b) those in a pre-74 district which was anything but a R.D. (except for 13 wards in the City of London, which were classed as Urban) (47 wards)

(c) those where it wasn't possible to obtain the name of the 1971 ward from Manchester University's look-up table (1,490 wards)

At this point there still seemed to be some issues as we were missing a classification for over 1,500 wards. However, once the ward look-up was applied to the individual-level data, the results were very encouraging (see result table above). As we'd hoped, almost all the unclassifiable wards were very low-population areas which had either no LS members living in them, or at most one or two; so on the individual level, 99.8% of LSMs were able to be allocated a 1971 urban/rural classification.

Even if we choose to discard the 4,175 LSMs living in the slightly dubiously-labelled category of 'rural' (no non-moving LSMs, but low population wards in pre-74 RD), we still have 99% of LSMs reliably linked!

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