

NILS066: Fertility in Northern Ireland 2001-2011: The Influence of Education and Migration

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Education has an important influence upon fertility. Women with degrees tend to have fewer children and begin childbearing later than those with less qualification. The project proposed to examine the fertility of the NILS panel (c 28% of the population) of women aged 15 to 49 years at any time between the Censuses of 2001 and 2011. A woman's presence in the panel was established by her being in the biannual download from the BSO based on health card registrations.

The beta test consisted of examining educational qualifications as recorded in the two Censuses. The expected pattern would be of a monotonic non-decreasing function. The large majority of individuals proceed directly through education: the academic path for instance consists of GCSEs, followed by A-levels and then Degree. The path can be terminated at any stage.

The education question in the 2011 Census (27) asks 'Which of these qualifications do you have?' and gives 13 possible responses, the final one of which is 'No qualifications'. The 2001 Census has a similar structure though with slightly different options: there is no 'Apprenticeship' and the groupings are occasionally different. The comparison of the results of the two Censuses was based upon the derived variable EDQUAL_HIGHPO of the 2001 Census which aggregated the qualifications into 6 classes. The 2011 responses were aggregated as far as possible into the same classes. The question directs the respondent to tick every box that applies; 'Apprenticeship' was ticked along with both higher and lower attainments – one with a degree could be training to be a solicitor.

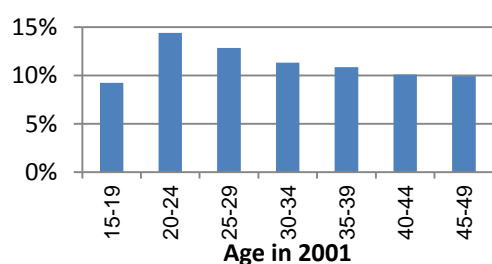
In the NILS there were c 95,000 women aged 15-49 in 2001 with responses in both Censuses. Their highest educational attainment, HIQUAL, is cross tabulated in the table below.

HIQUAL 2001	HIQUAL 2011					Total
	None	<5 GCSEs	5+ GCSEs	A-levels	Degree	
None	15,989	2,357	2,166	1,218	1,614	23,344
<5 GCSEs	2,924	8,745	5,336	2,322	2,598	21,925
5+ GCSEs	1,119	2,343	8,494	3,310	5,697	20,963
A-levels	409	493	1,364	4,691	4,536	11,493
Degree	378	276	532	825	15,209	17,220
Total	20,819	14,214	17,892	12,366	29,654	94,945

The numbers on the principal diagonal are those whose educational level is unchanged in the ten years between the Censuses; those above the diagonal have proceeded further; there should be no entries below the principal diagonal. The disconcerting feature of the table is that 11% of respondents have an education level that has fallen between the two Censuses.

The education question is particularly suited to testing the consistency over time of Census responses, given that attainment should never fall. However, there are many other questions where responses may be inaccurate but where a simple system to test consistency that is available for education is not available. It is hoped that by examining the factors that are influential within education, some light may be shed on the accuracy of other responses.

The percentage of education responses that are inconsistent is displayed below by age category in 2001. The peak at 14% occurs for those in the category 20-24. While this could be attributed to youthful irresponsibility what is perplexing is that in the categories 40-49 the inconsistency rate is 10%.



The low rate for 15-19 year olds cannot be attributed to the presence of parents. The presence of parents, who might be surmised to have completed the enumeration form, has no influence upon the inconsistency rate: it is 11% for those women who have a parent present in 2001 but not in 2011 and the same for those who have a parent present in neither or both.

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