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Evaluation of the Partnership Histories in the Centre for Population Change GHS Time Series Dataset

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ABSTRACT

A combined time series of the General Household Survey datasets from 1979 to 2007 has been compiled by the Centre for Population Change (CPC). This dataset includes, along with socio-economic variables, the demographic histories collected in the Family Information section of the GHS questionnaire over the GHS rounds covered, in harmonised form. The present paper evaluates both the internal consistency of the marriage and cohabitation histories and their correspondence with external sources. The data are weighted using new weights generated by CPC for the analysis of these data. Overall, cumulative proportions married by each age for the cohorts of 1951-55 to 1966-70 correspond well with ONS figures for England and Wales, though there are some systematic disparities in selected years. As found in an earlier study, retrospective estimates from the 2000-07 histories of the proportions cohabiting at a point in time are somewhat above the cross-sectional estimates at survey 5 and 10 years before.

KEYWORDS

Marriage; cohabitation; partnership; data quality; retrospective reports; General Household Survey; GHS; demographic histories

EDITORIAL NOTE

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EVALUATION OF THE PARTNERSHIP HISTORIES IN THE CENTRE FOR POPULATION CHANGE GHS TIME SERIES DATASET

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1. INTRODUCTION

The General Household Survey (GHS)[1], along with the British Household Panel Study, provides one of the few sources of routinely collected life history data on cohabitation in Britain. Information on cohabitation from the GHS is combined with that from the Annual Population Survey and used as inputs for the marital status estimates and projections used by the Office for National Statistics (ONS) (See Wilson, 2009). Researchers from the Centre for Population Change (CPC) have put together repeated cross-sectional rounds of the GHS in order to undertake analyses of the patterns and determinants of family formation and dissolution in Britain over several decades. This paper examines the quality of the information on marriage and cohabitation contained within this consolidated time series dataset. This validation is an important precursor to the data being used for further substantive analysis. Some previous attempts have been made to externally validate cohabitation data from the GHS, for example by comparing cross-sectional estimates of current cohabitation with the Labour Force Survey (Berrington 1991, 1993; Wilson 2009), the Annual Population Survey (Wilson, 2009) and also the British Household Panel Survey and Omnibus survey (Murphy, 2000). This work extends previous work by examining the external and internal consistency of data on both marriages and cohabitations collected since 2000, and to a limited extent prior to this. The structure of the paper is as follows: Section two outlines the consolidated dataset, section 3 presents results of external validation of marriage data with vital registration and section 4 presents a comparison of estimates obtained from the retrospective partnership histories with those obtained cross-sectionally for the same time period.

2. THE CENTRE FOR POPULATION CHANGE GHS TIME SERIES DATASET

2.1 THE SURVEY DESIGN

Selected variables from the GHS annual surveys for the years 1979 to 2007 have been combined together[2]. Consistent socio-economic variables have been derived to cover the entire period. Some of these were drawn directly from the 1972-2004 GHS Time

[1] Now called the General Lifestyle Survey
[2] Note that no GHS survey took place in either 1997 or 1999.

Series database put together by ONS and made available via the Economic and Social Data Service (Uren, 2006). The latter database did not, however, include data from the Family Information (FI) section. Within the FI section of the GHS, male[3] and female respondents are asked a series of questions about their previous marriages and more recently their previous free-standing cohabitations. Female respondents are also asked to provide the dates of birth of all their children. In the earlier years (up to 1985) women aged up to 49 years were asked to complete the FI section, whereas in more recent surveys men and women up to age 59 have been included. Detailed work has been carried out by CPC in validating and correcting the fertility data in this consolidated dataset (Ní Bhrolcháin et al, 2010) and also in creating new weights (Beaujouan et al 2011). The present document focuses on the evaluation of the partnership history data.

The GHS has been carried out yearly since 1971. Two interruptions occurred in 1997/8 and 1999/2000 while the survey was reviewed and redeveloped. In many of the GHS survey rounds (1988 to 2004), fieldwork took place on a financial year basis. Hence what is referred to as the 1988 GHS round took place between April 1988 and March 1989, and so on. In 2005, the survey reverted to a calendar year basis. So as not to duplicate cases we omit the first quarter of the GHS 2005 round from the 2005 dataset, as it consists of the final quarter of the 2004-5 survey round. Also, in 2005, the design of the GHS changed from repeated cross-sectional to a rotating quarterly panel design. Consequently only one quarter of those included in the survey in 2006 and 2007 are new interviews and have been included in the analysis below.

2.2. INFORMATION COLLECTED ON PARTNERSHIPS

The type of information collected on current and retrospective partnerships has developed over the life time of the GHS, reflecting the increasing complexity of individuals' life course trajectories. In this paper we refer to "partnerships" as any co-residential partnership whether marriage or cohabitation. "Premarital cohabitation" refers to a spell of non-marital cohabitation which took place directly before the couple married one another. A "closed period of cohabitation" refers to a spell of cohabitation that ended in separation rather than marriage and was not still current at the time of interview. The word union is used interchangeably with partnership and has the same meaning.

[3] Male respondents were asked about their partnerships only since 1986.

Type of information	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	98	00	01	02	03	04	05	06	07
Current and previous marriage dates	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Duration of current cohabitation	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Whether the respondent cohabited prior to their current marriage	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Length of premarital cohabitation before current marriage			√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Length of premarital cohabitation prior to current and previous marriages											√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Start and end dates for closed periods of cohabitation which did not lead to marriage																				√	√	√	√	√	√	√	√

[1] Men were asked this information only from 1986

Table 1 Summary of type of marriage and partnership information collected within the GHS from 1979 to 2007[1]. √ represents information collected.

Information on current and previous marriages has been collected in all years since 1979. From 1979 information on current cohabitation and whether the respondent cohabited prior to their current marriage was also collected. In the period 1981 to 1988 the duration of premarital cohabitation before the current marriage was also collected. Between 1989 and 1998 the GHS asked for dates of premarital cohabitation prior to the current and all previous marriages. Since 2000, information on up to three periods of cohabitation that did not end in marriage has additionally been collected, thus giving a complete partnership history for most people (see section 4.1).

2.3 UNWEIGHTED AND WEIGHTED HISTORIES

Weights covering the whole data series have been generated both to adjust for survey non-response and to calibrate the GHS sample distribution to the national population distribution in respect of age and sex, and region (Beaujouan et al., 2011). One set of weights (CPC-ALL) is designed for use with general GHS topics and has the same weight for all persons in a given household. The second (CPC-FI) corrects for the non-response to the Family Information section, and is specific to individuals; it is these weights that are used in all analyses in the present paper.

Figures 1 to 4 show the percentage of respondents with missing marital history information[4] by survey round for men and women aged 40-49 and 50-59[5] according to current marital status[6]. Survey rounds are grouped from 1979 onwards (recall that 1996 was the first year that men are asked to provide a marital history). 1998 is taken on its own since there was no GHS in 1997 and 1999 and non-response rates appear to be relatively high in this particular year and not consistent with the longer term trend.

As can be seen in Figures 1 to 4, non-response to the family information section tends to be greater among the youngest age groups and has increased over time. A consistent theme is the recent decline in response among those who are currently married or formerly married. At ages 16-29, non-response rates are generally highest among single men and women and men who are currently divorced and separated, and lower among those who are married or cohabiting. In the 2005-2007 rounds around

[4] Missing data can arise either because the person is a proxy respondent or because they did not successfully complete the marriage history section contained within the Family Information part of General Household Survey.

[5] For the GHS rounds 1979-1985 the upper age limit for female respondents was 49 and so no data points are available on the graph for 50-59 year olds for this period.

[6] Marital status refers to the marital status declared at the start of the GHS questionnaire. For the survey rounds 1986-1996 “cohabiting” was included as a possible category to the marital status question.

one in five single men and one in four divorced or separated men who were enumerated in the household grid did not complete the family information section. Among those aged 30-39 non response rates were quite stable in the period 1979-1996 but have increased in the 2005-7 survey rounds, especially among those ever married. The increase in non-response among those ever married is also apparent among those aged 40 and above. This increase began in about 1993-6 but accelerated in the 2005-7 period. In contrast, non-response among single men and women aged 40-59 has remained fairly constant (and actually declined among single women aged 40-49). For example among married men aged 40-49 at survey, the percentage who have missing marital histories increased from 8% in 1986-1988 to 17% in 2005-7. The equivalent percentages for married women aged 40-49 are 3% in 1986-1988 to 9% in 2005-7.

Fig 1a. Non response to the FI section (refusal & proxy) by survey year. Men aged 16-29.

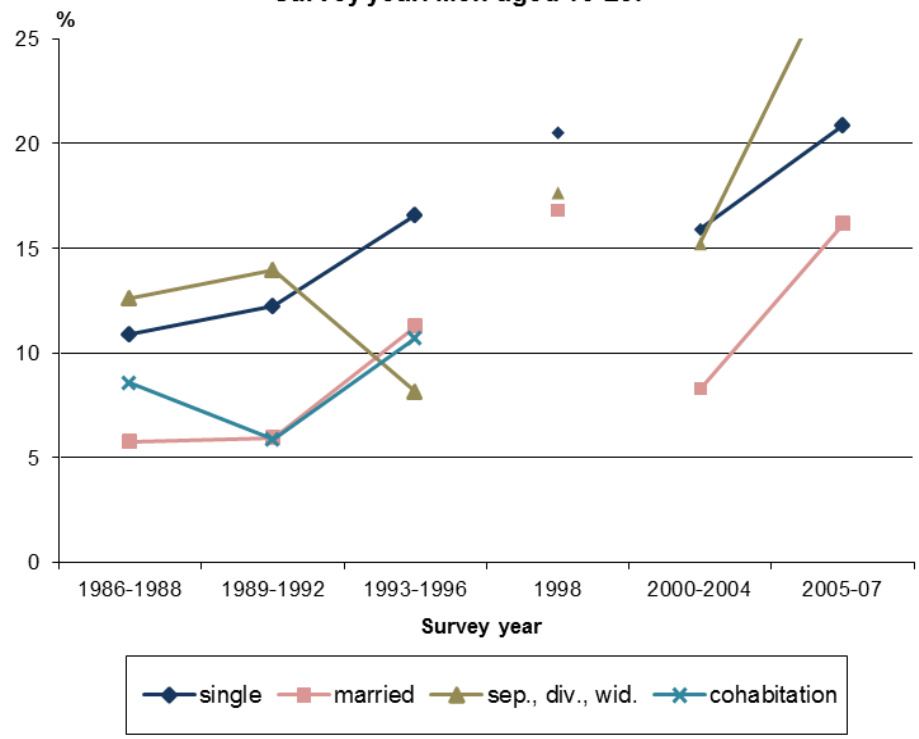


Fig 1b. Non response to the FI section (refusal & proxy) by survey year. Women aged 16-29.

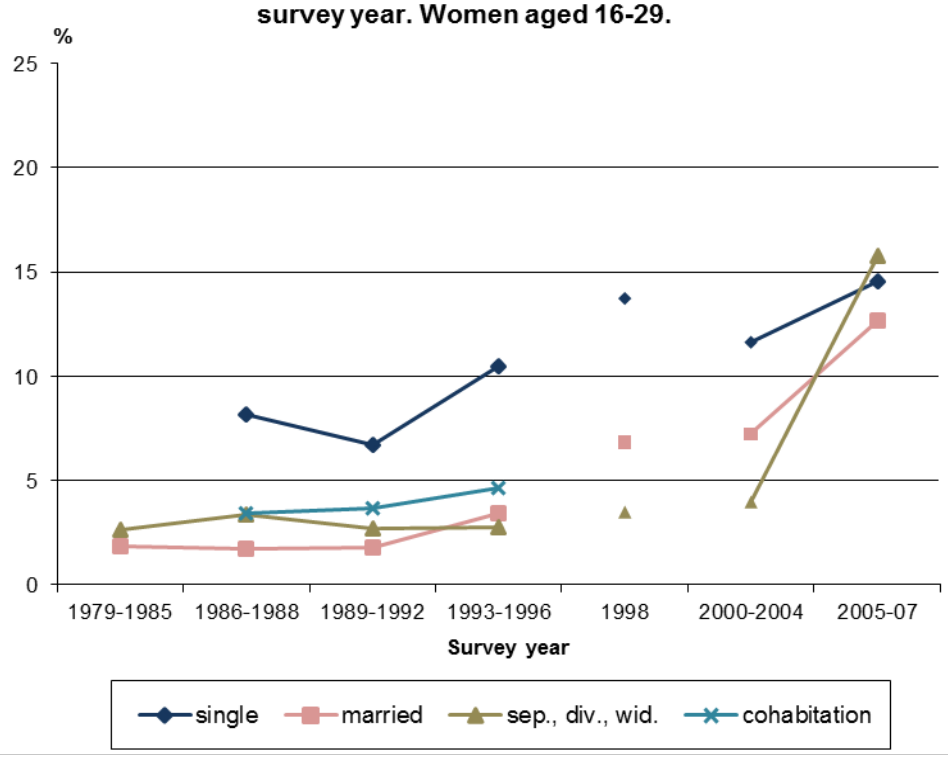


Fig 2a. Non response to the FI section (refusal & proxy) by survey year. Men aged 30-39.

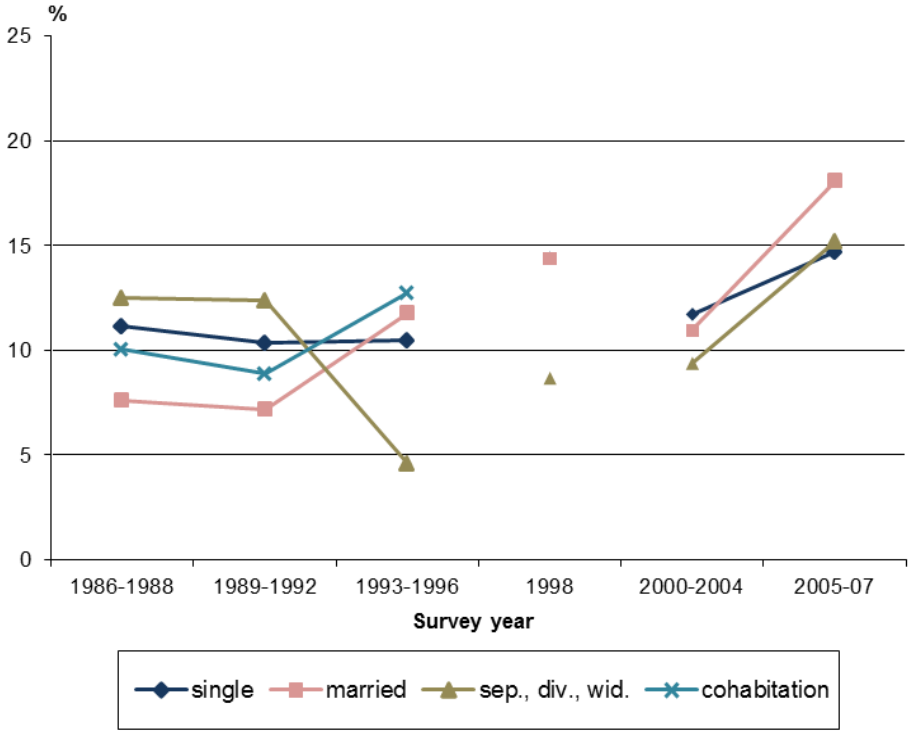


Fig 2b. Non response to the FI section (refusal & proxy) by survey year. Women aged 30-39.

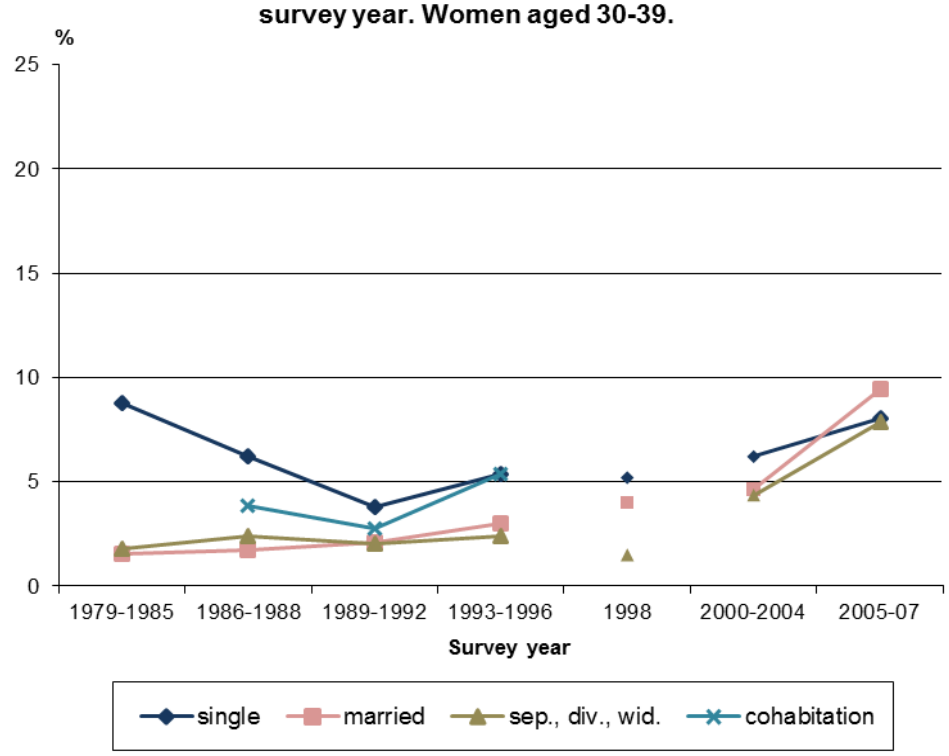


Fig 3a. Non response to the FI section (refusal & proxy) by survey year. Men aged 40-49.

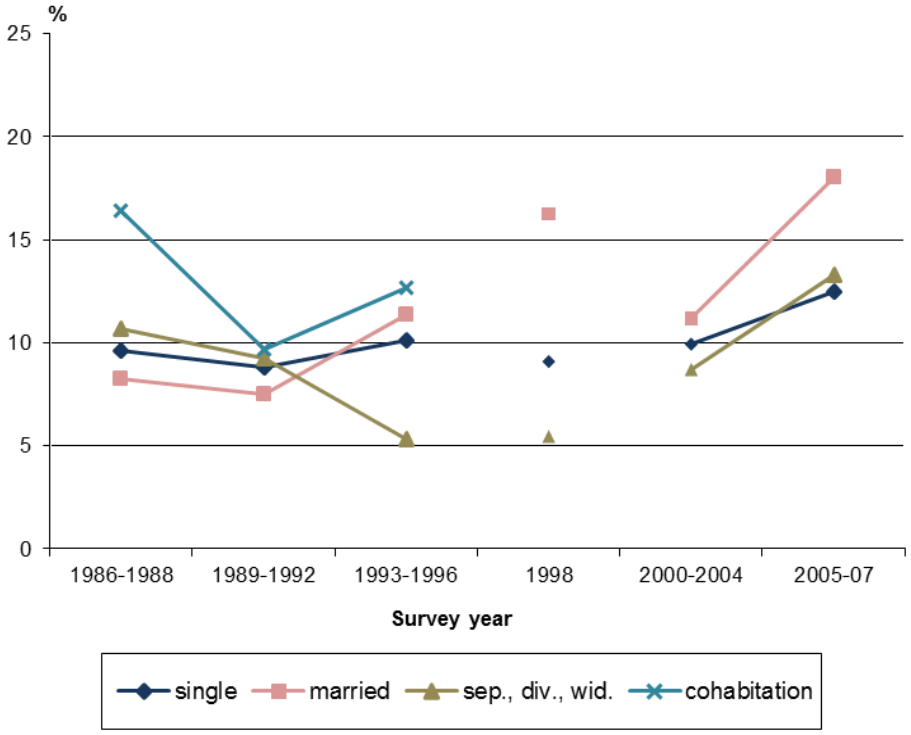


Fig 3b. Non response to the FI section (refusal & proxy) by survey year. Women aged 40-49.

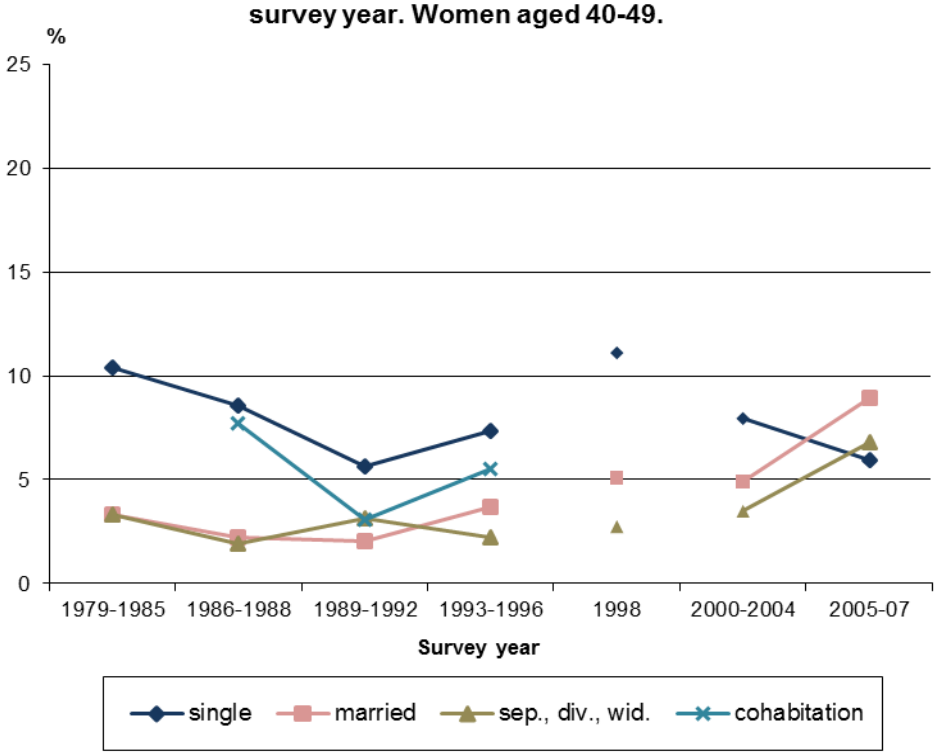


Fig 4a. Non response to the FI section (refusal & proxy) by survey year. Men aged 50-59.

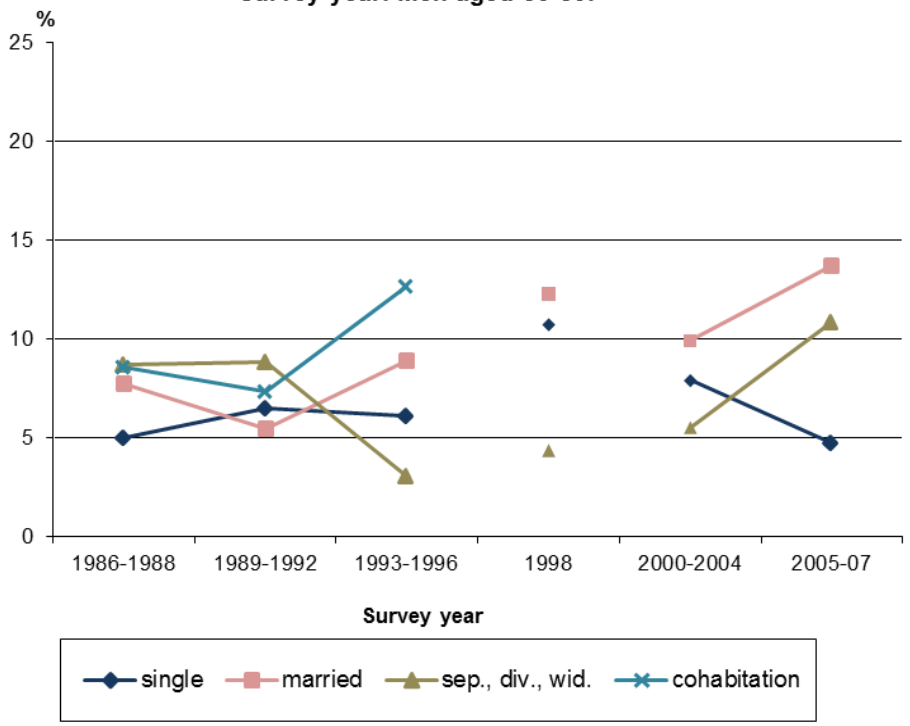
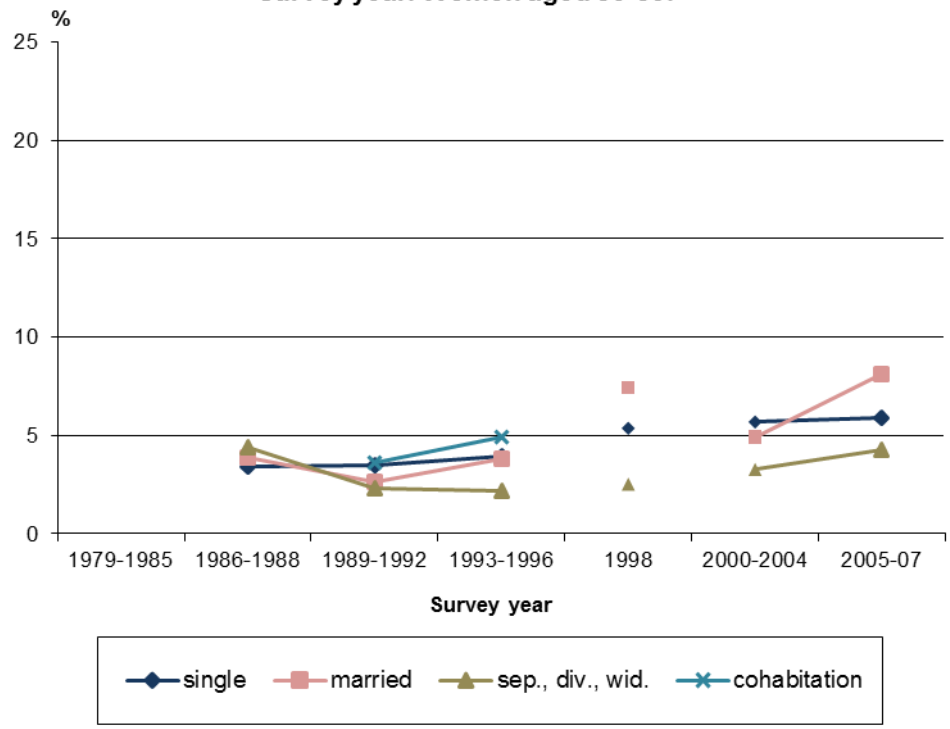


Fig 4b. Non response to the FI section (refusal & proxy) by survey year. Women aged 50-59.



In Figure 5 we provide examples of the influence of weighting on estimates of the cumulative incidence of marriage. We focus on men and women born in 1961-65 and compare the weighted and unweighted reports of the proportions ever married by age. We take two groups of survey years as different examples – the first from the period 1985-89 and the second from the period 2005-07. We do not use the ONS weights that have been released with the more recent GHS survey rounds. Instead we use a consistent set of weights developed by Beaujouan and colleagues (2011) to cover the whole of the GHS time series 1979-2007, and designed specifically for analysis of data collected in the Family Information section (CPC-FI weights); these weights adjust both for household level non-response and for non-response by individuals to the Family Information (FI) section. Individual non-response to the FI section includes proxy interviews, outright refusals of the Family Information section, and respondents whose FI marriage and partnership histories were unusable due to inconsistencies. In the earlier surveys from the 1980s (when the cohort was in their twenties) the effect of applying weights is to reduce the estimated proportion ever married. (This is what we expect given the higher levels of non-response among young singles as compared young married respondents.) In more recent surveys from 2005-2007, when the 1961-65 cohorts were in their forties, the effect is reversed. That is to say the impact of weighting in the 2005-07 GHS rounds is to increase the proportion who married at younger ages by comparison with the unweighted estimates.

Overall the accuracy of the histories seems improved by applying the weights: the effect of weighting is to make the estimates for the same birth cohort from different survey rounds more similar – in Figure 5 this can be seen as a good correspondence in the dotted lines, especially for women.

Fig 5a. Proportion of men who had ever married by age for birth cohorts 1961-65. Weighted and unweighted estimates from alternative GHS survey rounds.

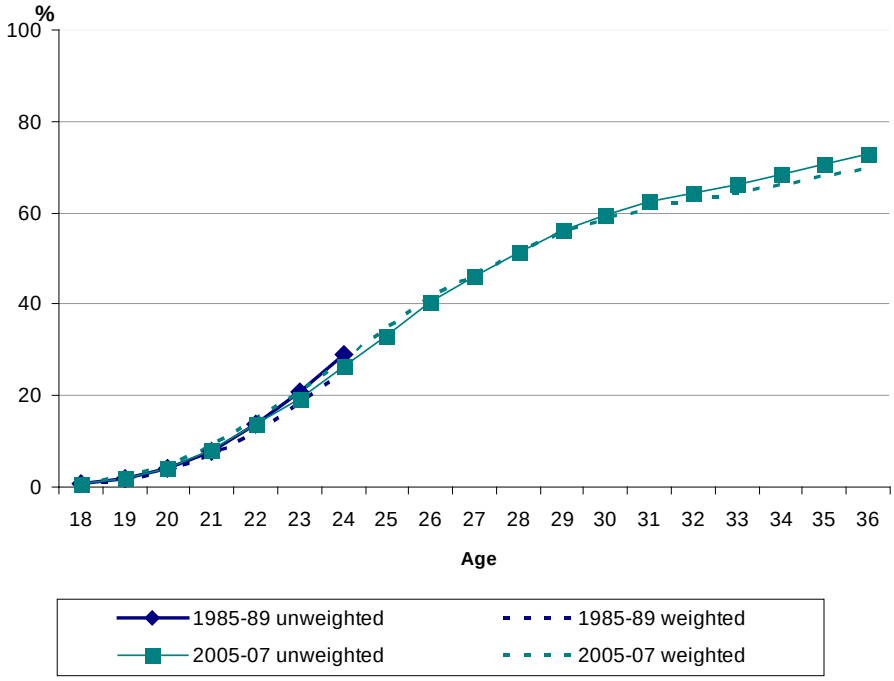
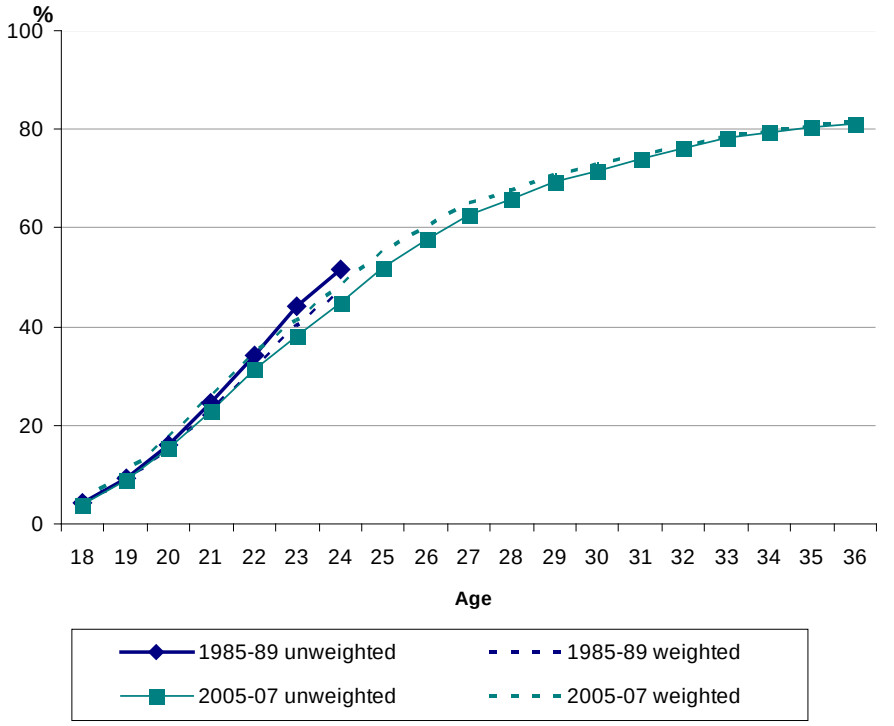


Fig 5b. Proportion of women who had ever married by age for birth cohorts 1961-65. Weighted and unweighted estimates from alternative GHS survey rounds.



3. EXTERNAL VALIDATION OF MARRIAGE HISTORIES

3.1 OFFICIAL MARRIAGE ESTIMATES FROM VITAL REGISTRATION

Data collected from marriages solemnised in England and Wales are routinely published by the Office for National Statistics (ONS, 2010). Data are published by birth cohort. Hence it is possible to compare the percentages reporting ever having been married derived from the reports of GHS respondents and vital registration, confining the comparison to residents for England and Wales. Even if we assume that respondents accurately report the dates of all of their marriages within the GHS survey, we would not expect an exact match of the estimates from the GHS and from vital registration data for three reasons: Firstly, the General Household Survey is a sample survey and thus affected by non-response. We saw earlier the differential non-response to the Family Information Section according to marital status. There is also likely to be differential overall response e.g. refusal or non-contact to the GHS as a whole by marital status. This combined non-response will affect comparisons with estimates from vital registration. We would expect our individual level weights to correct for such individual-level non-response bias to some extent, but the correction will not always eliminate the bias entirely.

Secondly, vital registration data include only marriages which took place within England and Wales. However, the marriages reported by respondents to the GHS will include those to respondents in England and Wales who had married elsewhere. Over the period 2000 to 2010 the trend for marriages abroad appeared to be increasing, with marriage abroad more common among men than women (ONS, 2008). For this reason we might expect the GHS to provide higher estimates of cumulative marriages than vital registration. However, a further disparity arises from those who married in England and Wales but have since emigrated. Since 2000, when the International Passenger Survey included a question about reason for travel, it has been possible to make a rough estimate of the numbers of overseas residents who married in England and Wales and the number of England and Wales residents who married abroad (ONS, 2008; 2009). ONS estimates that there are approximately 40,000 to 90,000 residents going abroad to get married each year, and 6,000 to 10,000 overseas residents marrying in England and Wales annually. The subtraction of the number of overseas residents marrying in England and Wales from the number of residents going overseas

to marry gives the 'net' number of people by age, sex and previous marital status with which the published marital status population estimates are adjusted (ONS, 2009). According to ONS, 'net' numbers of marriages abroad account for on average 11 per cent of all marriages each year. Including these additional marriages abroad increases the estimated married population in England and Wales by around 0.2% per annum for women and by around 0.3% - 0.4% for males per annum (ONS, 2008).

Thirdly, when using the GHS to makes estimates, of, for example, the proportions ever married by age by year of birth, we utilize the retrospective information within the marriage histories provided by GHS respondents. Recent migrants to England and Wales who respond to the General Household Survey will provide details of previous marriages which may have taken place abroad prior to their arrival. The impact of this bias on GHS estimates will depend upon the relative marriage rates of recent migrants compared to those who were resident in Britain in the past, as well as on the relative numbers of immigrants

3.2 COMPARISON OF VITAL REGISTRATION STATISTICS AND GHS

Figures 6 to 13 show the proportion of respondents that report being ever married for men and women for the birth cohorts, 1951-55, 1956-60, 1961-65 and 1966-70. The pink filled circles show the estimates from vital registration. The black diamonds show the proportion obtained by combining data from all the surveys in which this cohort is present that can provide appropriate information. The remaining lines refer to groups of GHS surveys from which the estimate is derived. Note that the estimates from the 2005-2007 survey will be based on a reduced sample size and hence will have a greater degree of uncertainty.

In general there is a good degree of consistency between the GHS estimates of proportions ever married and those from vital registration once the CPC-FI weights are applied. There are three cases where the estimates diverge. The first can be seen for those born in the late 1960s (see Figures 9 and 13 for men and women respectively). We find that the estimated proportions ever married based on the 1995-99 GHS surveys (when respondents were in their late twenties) are too high. This is especially the case for women. The second divergence is found in the reports of older cohorts (especially women born 1951-60 – see Figures 10 and 11) from the very recent 2005-7 surveys. In general the reported proportions ever married before age 26

are lower in the 2005-7 GHS as compared with vital registration or earlier surveys. The third divergence also relates to the under-estimation of marriage in the GHS in the 2005-7 surveys, this time among women born in 1966-1970 when they were in their twenties.

The complexity of the patterns found may result from the combination of different biases acting at different ages and in different survey rounds. First, there is a tendency for the proportions ever married to be higher in the GHS compared to vital registration when the respondents are in their late twenties and early thirties. This could relate to differential response to the GHS according to marital status among those in their late twenties and early thirties. As shown in Figures 2a and 2b non-response to the Family Information section among those enumerated in the household grid is generally lower among those who are married (or cohabiting) than those who are single. Since the GHS estimates are weighted using the CPC-FI weights this explanation would imply that the weights do not sufficiently account for this differential response by marital status among young adults.

Non-response to the GHS has increased dramatically in the recent rounds (see Figure 2 of Beaujouan et al 2011). Increasing non-response could potentially affect the estimated proportions ever married in at least two ways: First, if the more socio-economically disadvantaged were increasingly unlikely to respond then our estimates of marriage at younger ages will be biased downwards (since low socio-economic status tends to be associated with earlier marriage). However, examination of the GHS data finds no evidence that response rates have declined disproportionately more among those from lower social class backgrounds (analysis not shown but available on request). Second, as noted in section 2.3, non-response rates have increased disproportionately among the older ever married in 2005-7 (particularly those who were divorced) and hence recent surveys tend to underestimate proportions ever married.. This suggests that the CPC-FI weights go a long way towards adjusting the estimates for household and individual non-response but are not correcting fully for the recent increases in non-response in the most recent survey rounds.

Fig 6. Proportions of men who had ever married by certain age birth cohorts 1951-55

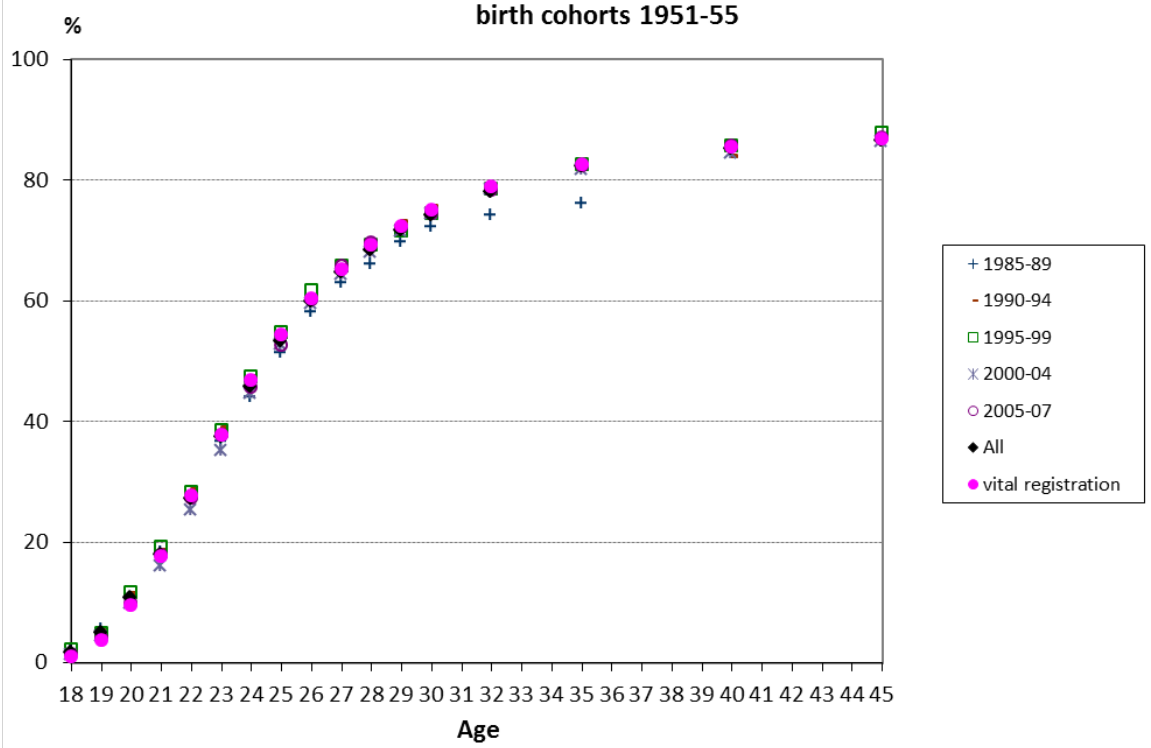


Fig 7. Proportions of men who had ever married by certain age birth cohorts 1956-60

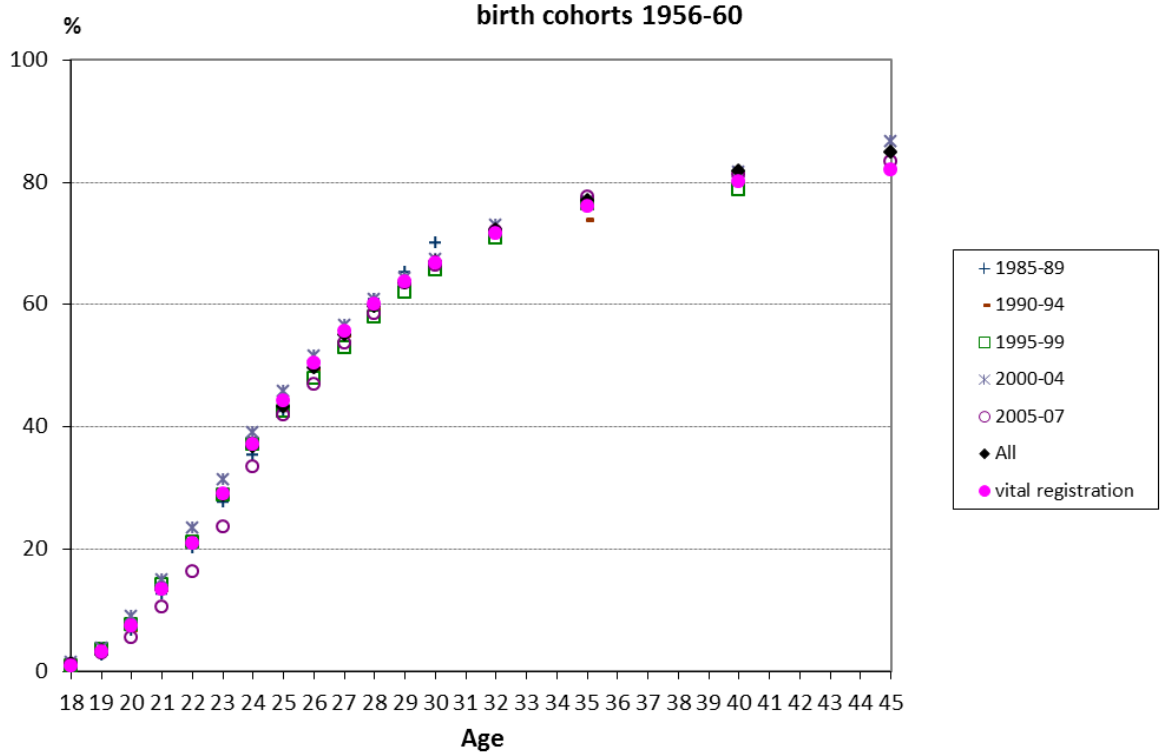


Fig 8. Proportions of men who had ever married by certain age birth cohorts 1961-65

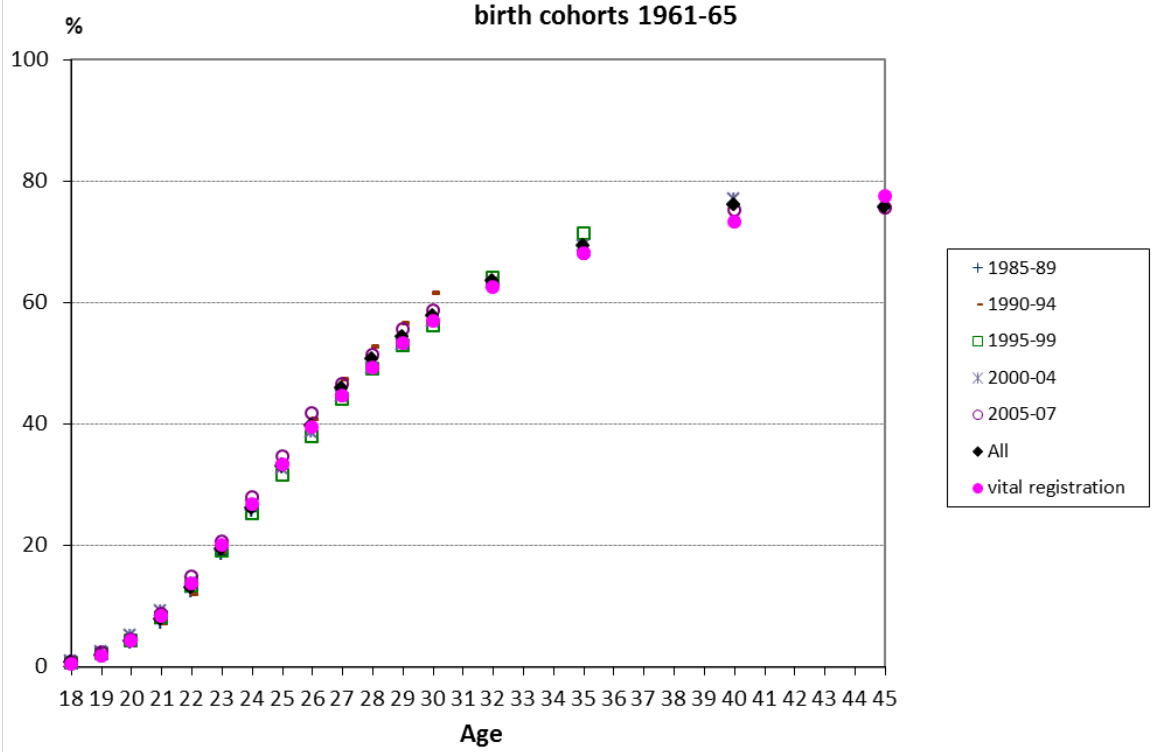


Fig 9. Proportions of men who had ever married by certain age birth cohorts 1966-70

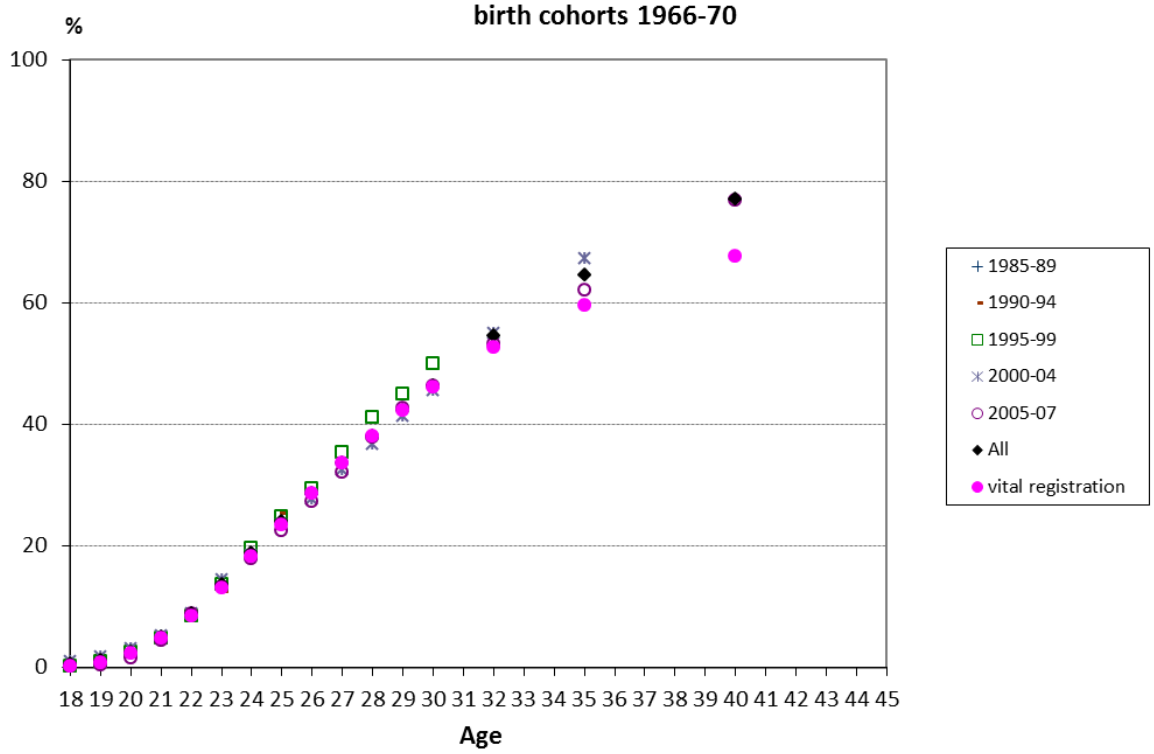


Fig 10. Proportions of women who had ever married by certain age birth cohorts 1951-55

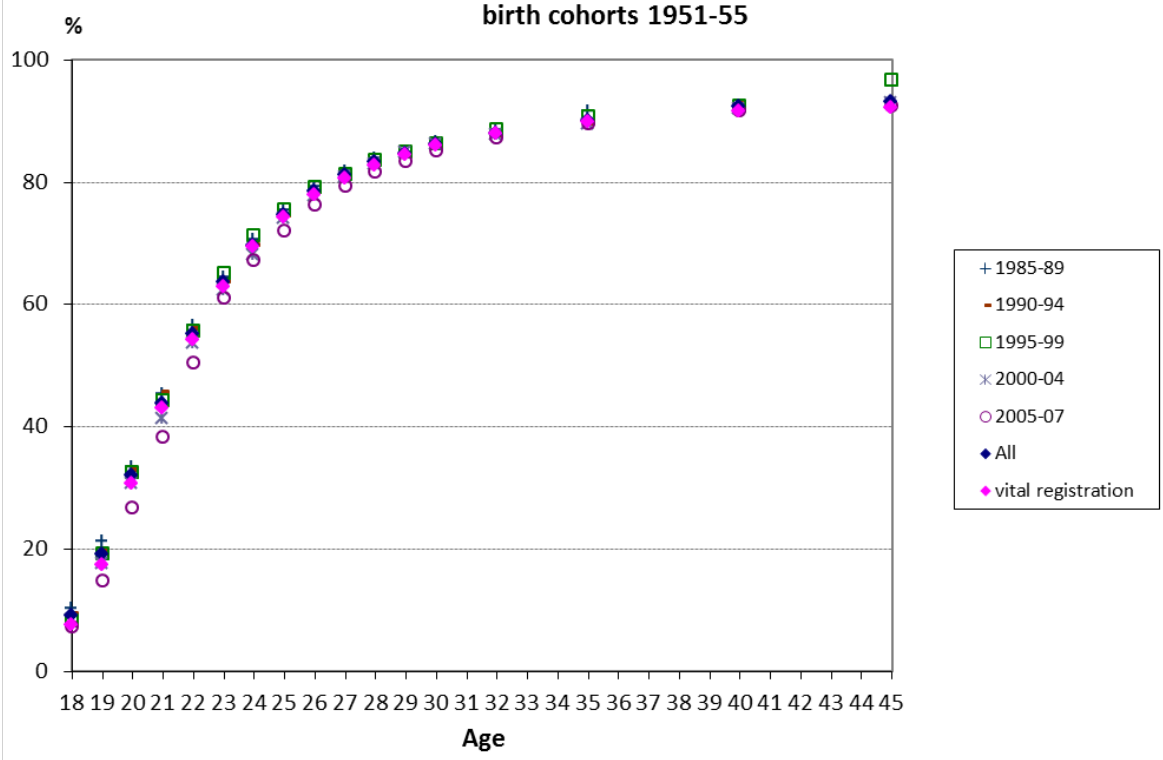


Fig 11. Proportions of women who had ever married by certain age birth cohorts 1956-60

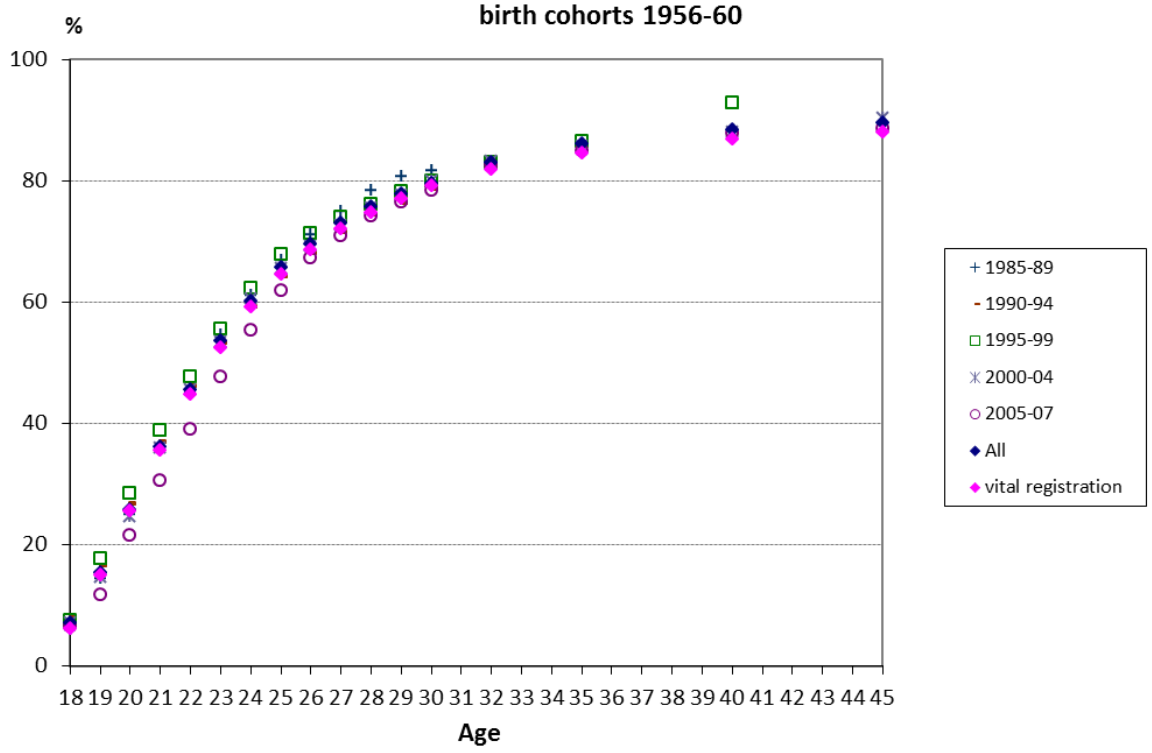


Fig 12. Proportions of women who had ever married by certain age birth cohorts 1961-65

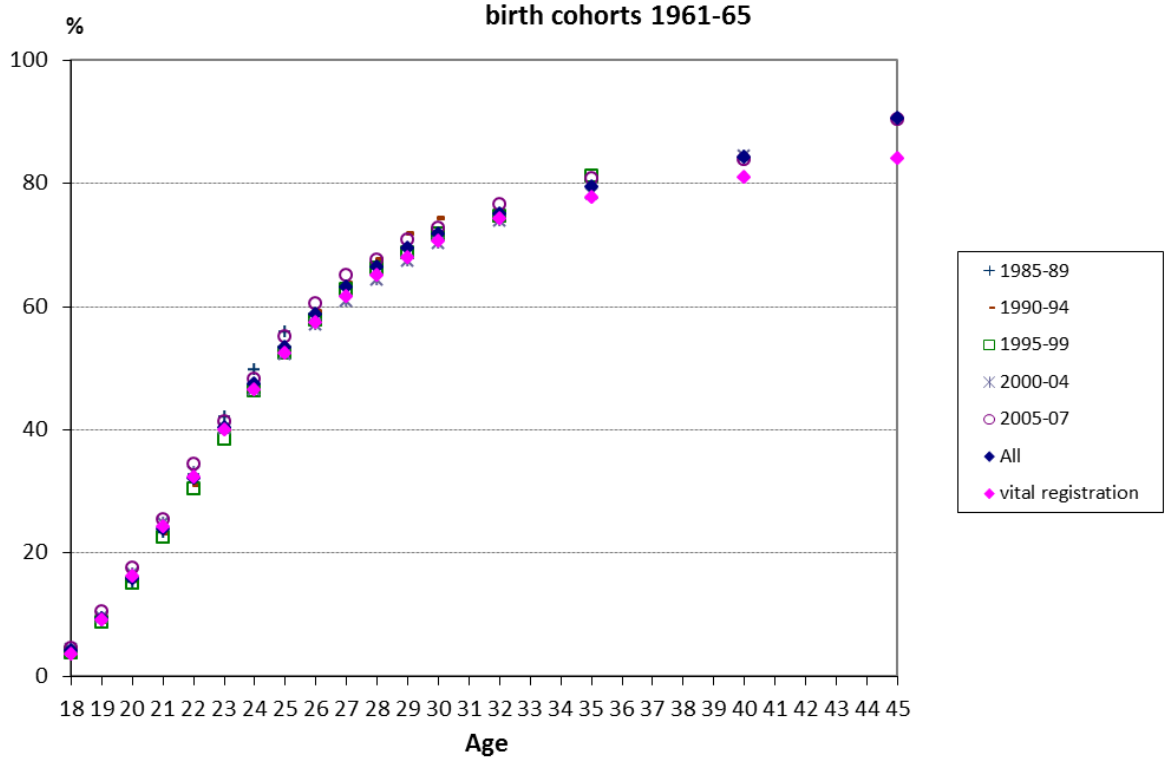
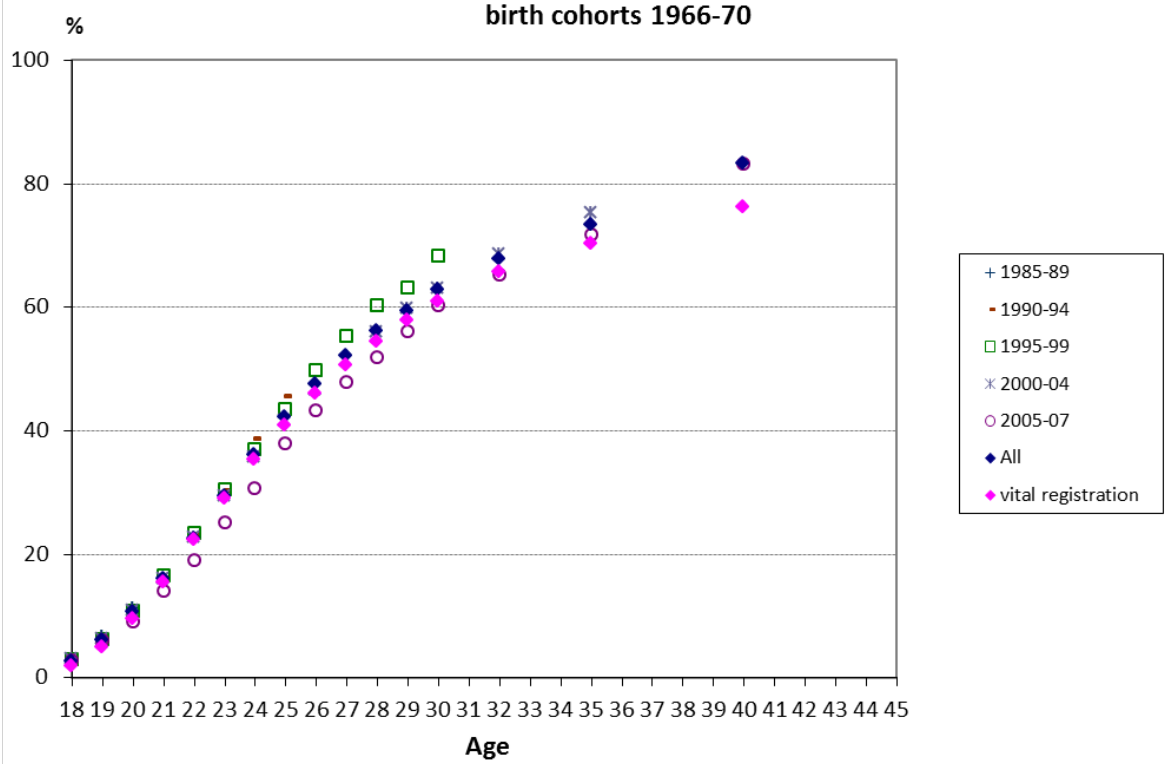


Fig 13. Proportions of women who had ever married by certain age birth cohorts 1966-70



4. INTERNAL VALIDATION OF PARTNERSHIP HISTORIES

As outlined in section 2.2, information on marriage histories has been collected in some form throughout the history of the GHS, but the amount of information on past cohabitations collected within the GHS has increased considerably over time. Whilst it has been possible since 1986 to estimate the proportions of both men and women currently cohabiting at each cross-sectional survey (and to estimate the level of premarital cohabitation), retrospective information on cohabitation has been collected in a near full form since 2000 only. Hence, in the following analyses, we can compare marriage data using all the surveys back to 1979. But in comparing information on partnerships as a whole (including both marital and non-marital unions) we can use only the retrospective data collected since 2000. Similarly, comparisons of retrospective with cross-sectional estimates of cohabitation can be based only the retrospective accounts collected from 2000 onwards.

4.1 OVERALL NUMBER OF PARTNERSHIPS REPORTED

Below we show the percentage of men and women who report a number of four or more closed periods of cohabitation. It is only this group whose full cohabitation experience is not recorded within the GHS Family Information Section. We see that less than one percent of respondents have missing information on past cohabitations. There is no increase in the proportion with four or more cohabiting spells. Hence the reports of the first three cohabitations will be near complete and the retrospective reports will be subject to only a slight degree of underestimation.

GHS Survey year	Men	Women
2000	0.8	0.4
2001	1.3	0.2
2002	0.5	0.1
2003	0.5	0.3
2004	0.8	0.0
2005	0.5	0.3
2006	0.8	0.0
2007	0.6	0.9

Table 2 Percentage of men and women with four or more previous closed periods of cohabitation, by survey year.

4.2 ARE THERE ANY INCONSISTENCIES IN THE REPORTS FROM INDIVIDUALS FROM THE SAME BIRTH COHORTS OVER TIME?

Murphy (2009) identified anomalies in the fertility histories by adopting a pseudo cohort approach: he compared the reported proportion childless for cohorts as they were encountered in successive rounds of the GHS.[7]**.**We adopt a similar methodology here. In the following sections we plot a number of different time series (e.g. of age at first marriage, age at first partnership, proportion who have ever had a partnership or who have ever married) by cohort to identify how far the reported experience of members of a given cohort is consistent when these cohorts are encountered, as they age, at successive rounds of the GHS. The expectation is that the proportion of a cohort ever experiencing a marriage or a cohabitation should be non-decreasing in successive rounds of the GHS, and that the mean age at an event—first marriage or first partnership—should increase up to some age and then remain stable, since few first marriages/partnerships take place at older ages. When producing estimates by birth cohort, additional care has been taken in identifying the sample. Given the shape of the dataset, curves of comparison within 5-year cohorts can be drawn each year, but not always with the same age distribution represented in them retrospectively. The comparisons to be presented are thus restricted for each five-year year group to birth cohorts in which exposure is present for each of the five single years of age of an age group.

Figures 14 and 15 show the mean age at first partnership by cohort and age at survey. Since we have (almost) complete cohabitation history data from the 2000-2007 GHS surveys, we only have observations for a few birth cohorts at any age. The smaller sample sizes in 2006 and 2007 (due to the change in survey design to a rolling panel) mean that estimates for 2005-07 have been grouped. To facilitate interpretation, we present selected birth cohorts whose experience crossed over two consecutive age groups. Thus the oldest birth cohort shown is those born in 1948 who would be aged around 52 in 2000 (i.e. in the 50-54 age group). In 2005 the 1948 cohort would be aged around 57 (i.e. in the 55-59 age group). The two youngest birth cohorts shown are those born in 1983 and 1984 who were aged 16-19 in the earliest survey years and aged 20-24 in the later survey years.

[7] The data have, however, since been corrected using information on persons in household (Ni Bhrolchain et al 2011).

Up to age 35-39, the mean age at first partnership increases within a cohort as they age through their life course, as we would expect. After this age the mean age at first partnership stabilises within a cohort (at around 24-25 for men, and 22-23 for women) suggesting internal consistency in the reporting. Comparison across birth cohorts suggests a slight rise in the mean age at first partnership among those born in the 1960s as compared with those born in the 1940s and 1950s.

Fig 14. Mean age at first partnership by birth cohort, men

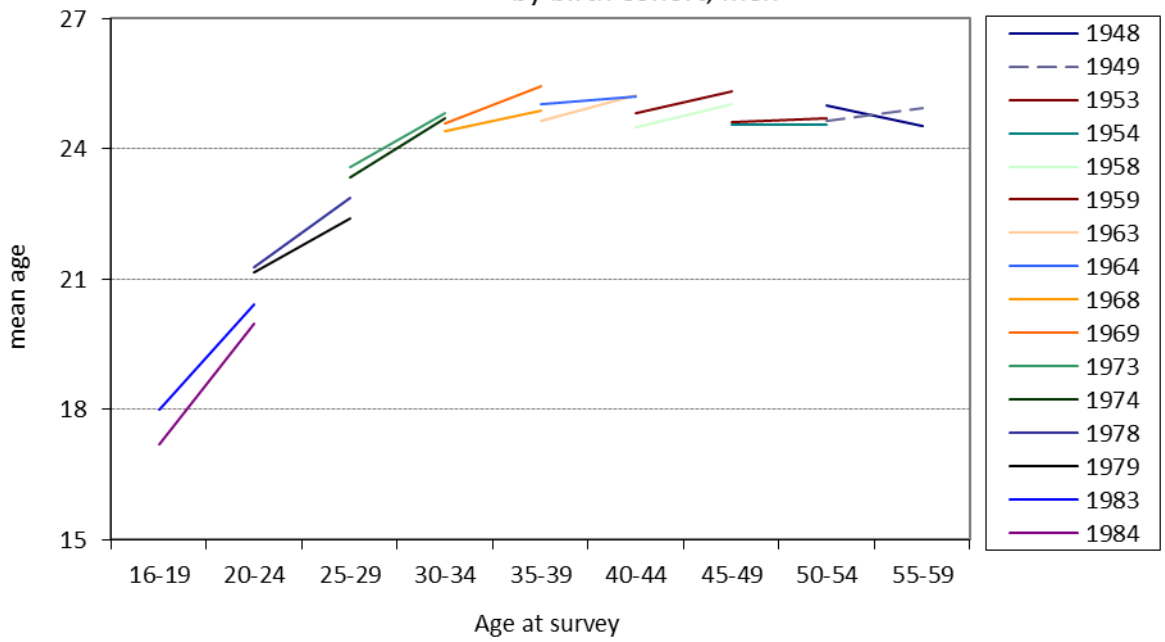
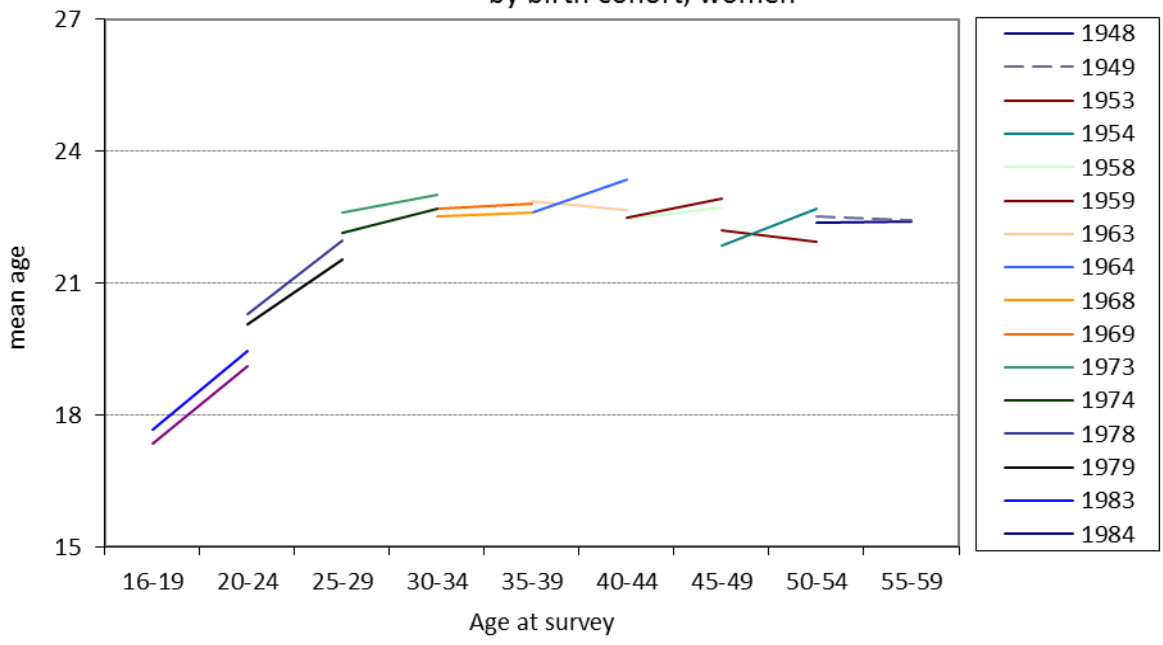


Fig 15. Mean age at first partnership by birth cohort, women



We demonstrate the extent of sampling error in these estimates by plotting confidence intervals for the mean age at first partnership for men and women born in 1945-49 as reported in the 2000-2005[8] surveys (Figures 16 and 17). Slight year on year changes in, for example, the age at first partnership as reported by those born in 1945-49 who are likely to have experienced this event far back in the past, are mostly within sampling variability and are within 95% confidence intervals.

Fig 16. Confidence intervals for the mean age at first partnership 1945-49 birth cohort, Men

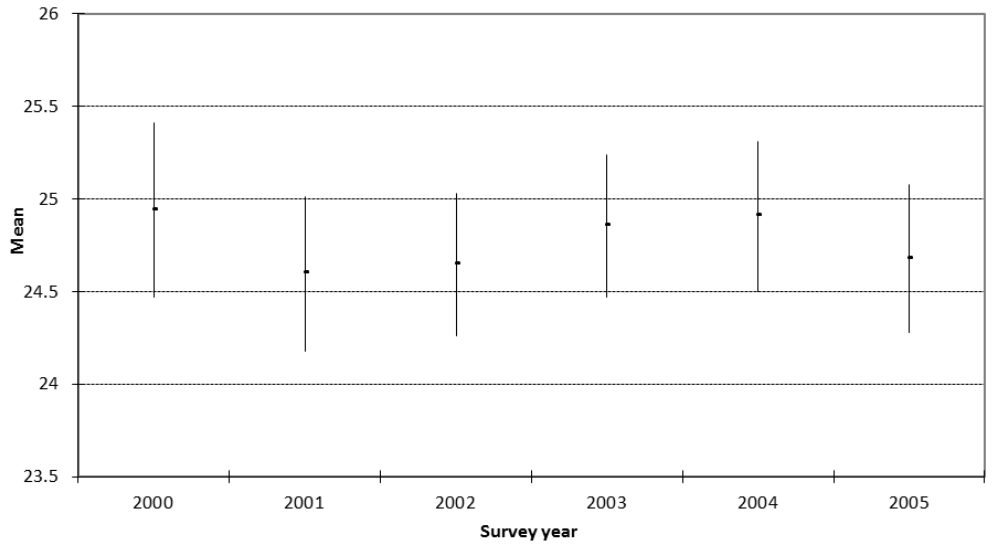
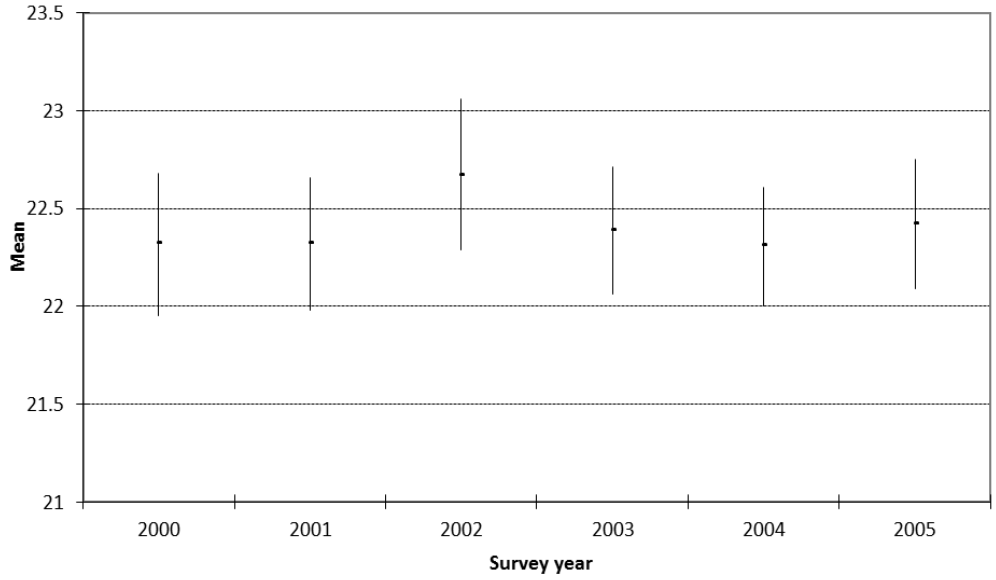


Fig 17. Confidence intervals for the mean age at first partnership 1945-49 birth cohort, Women



[8] In this figure the estimate and confidence interval for 2005 is based on that survey alone.

Next, we consider consistency in the reported mean age at marriage within cohorts. As few first marriages occur after age 45, we would expect that above age 45 the mean age at first marriage within any single cohort would remain approximately constant. For younger cohorts who have not yet reached age 45, the mean age at first marriage will increase with age as more people enter into marriage at later ages.

Fig 18. Mean age at first marriage by birth cohort, men

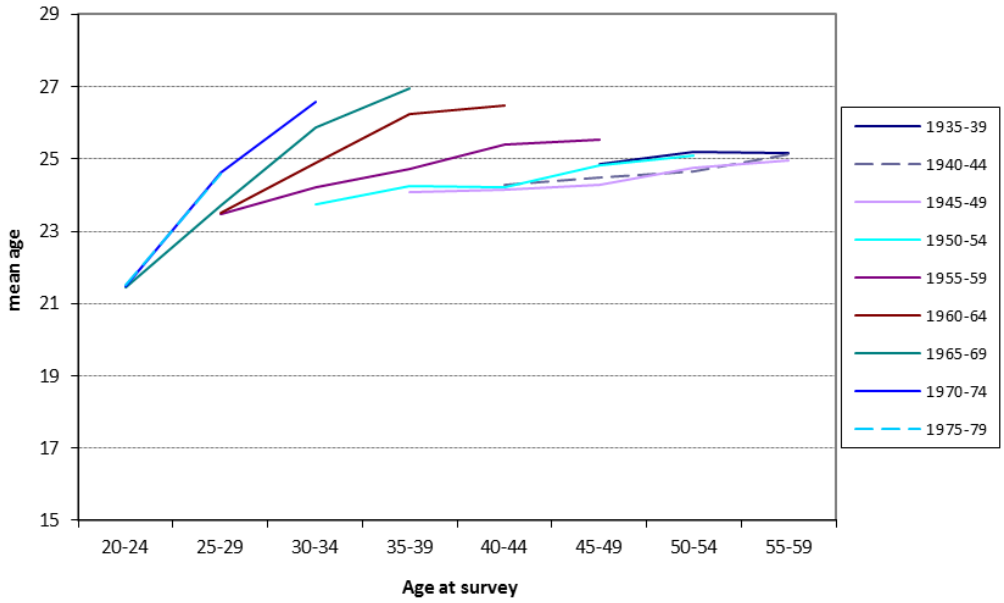
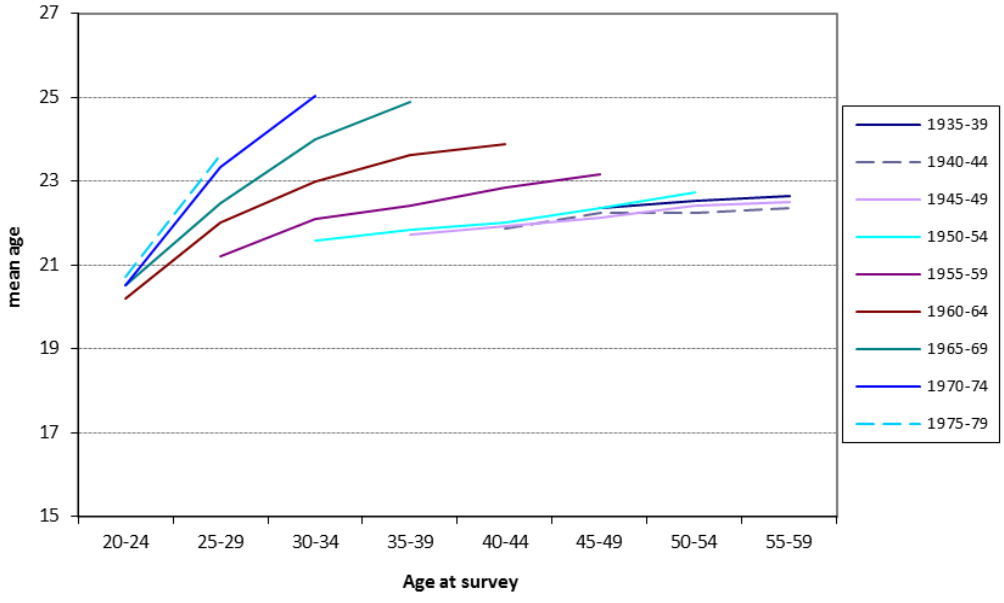


Fig 19. Mean age at first marriage by birth cohort, women



Figures 18 and 19 do indeed show consistency within a cohort in the mean age at first marriage. The estimates at above age 45 for the cohorts 1935 to 1944 show the expected levelling off (at around 25 years for men and 22.5 years for women), with a very small rise for men born in 1945-49. Consistent with vital statistics, across the cohorts, there is a significant increase in the mean age at first marriage for those born after 1954. In order to assess the uncertainty around these estimates of mean age at marriage we take the earliest birth cohorts to have continued to be interviewed within the FI section of the GHS through to 2005. For men (Figure 20) the horizontal axis starts in 1986 when men were first asked the FI questions, whilst for women (Figure 21) it starts in 1979. Those born in 1945-49 were aged around 30-34 in 1979, 37-41 in 1986 and around 56-60 in 2005. (The upper age limit for the FI interview is now 59).

Fig 20. Confidence intervals for the mean age at first marriage 1945-49 birth cohort, Men

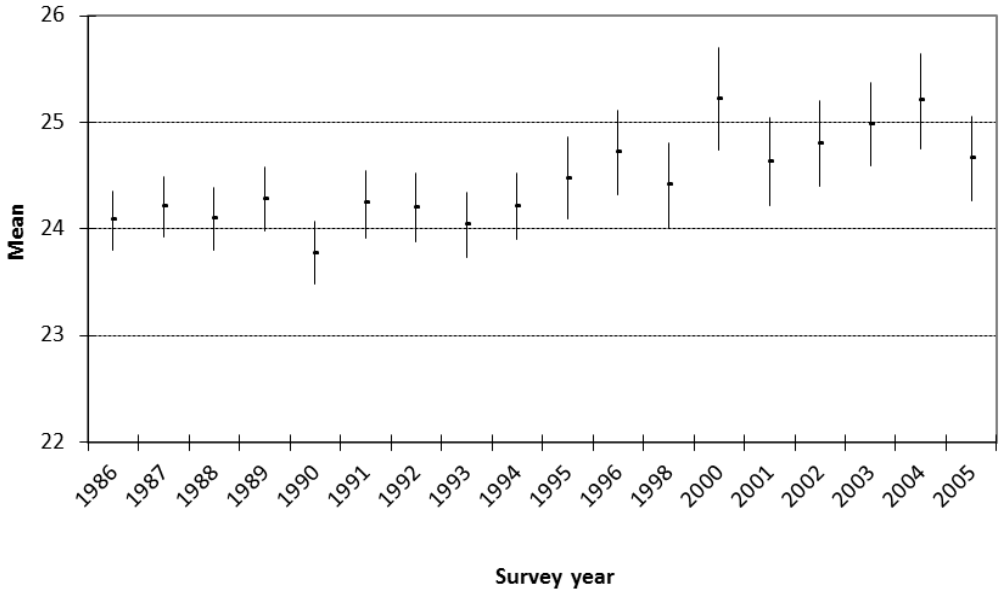
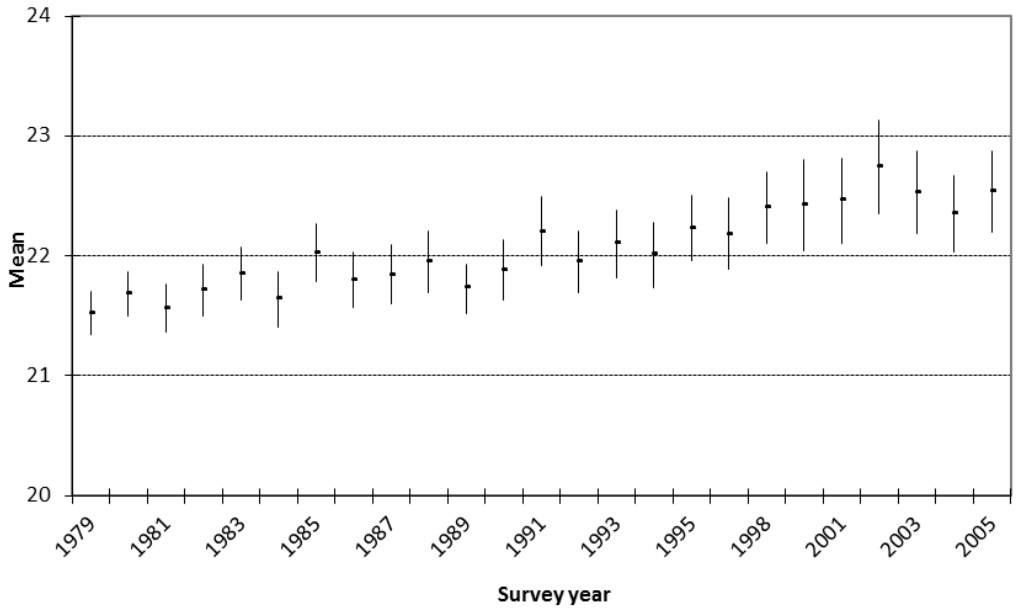


Fig 21. Confidence intervals for the mean age at first marriage 1945-49 birth cohort, Women



For women, prior to 1986 there is an increase in the mean age at first marriage which is explained by the fact that sizeable proportions of women are continuing to enter into marriage whilst in their 30s. The mean age then remains fairly steady over time. Among men, there is a slight tendency for the mean age at marriage to be slightly higher as reported in the more recent survey years, but given the fairly wide confidence intervals this is not a significant trend.

Next we examine for selected cohorts the proportion ever having experienced a) a co-residential partnership and b) marriage by birth cohort and age at survey. Figures 22 and 23 show that entry into first co-residential partnership takes place largely before age 40 for men and 35 for women. The horizontal nature of the lines after age 40 indicates consistency within a cohort in reporting over the period 2000-2007.

Fig. 22 Proportion having lived at least once with a partner by age and birth cohort, men

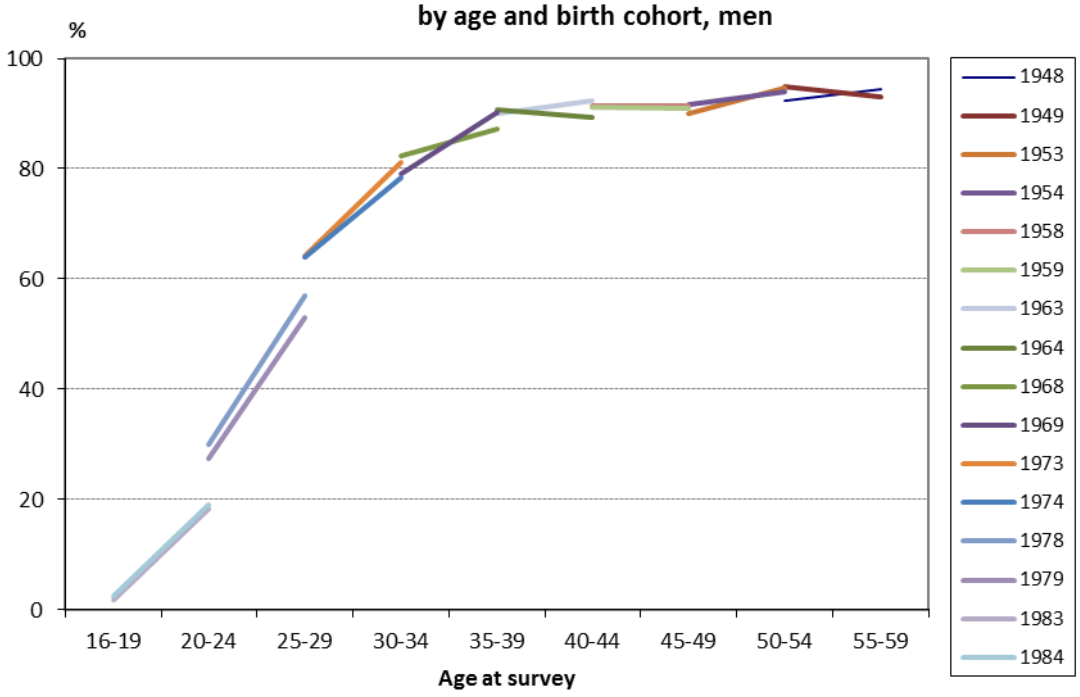


Fig 23. Proportion having lived at least once with a partner by age and birth cohort, women

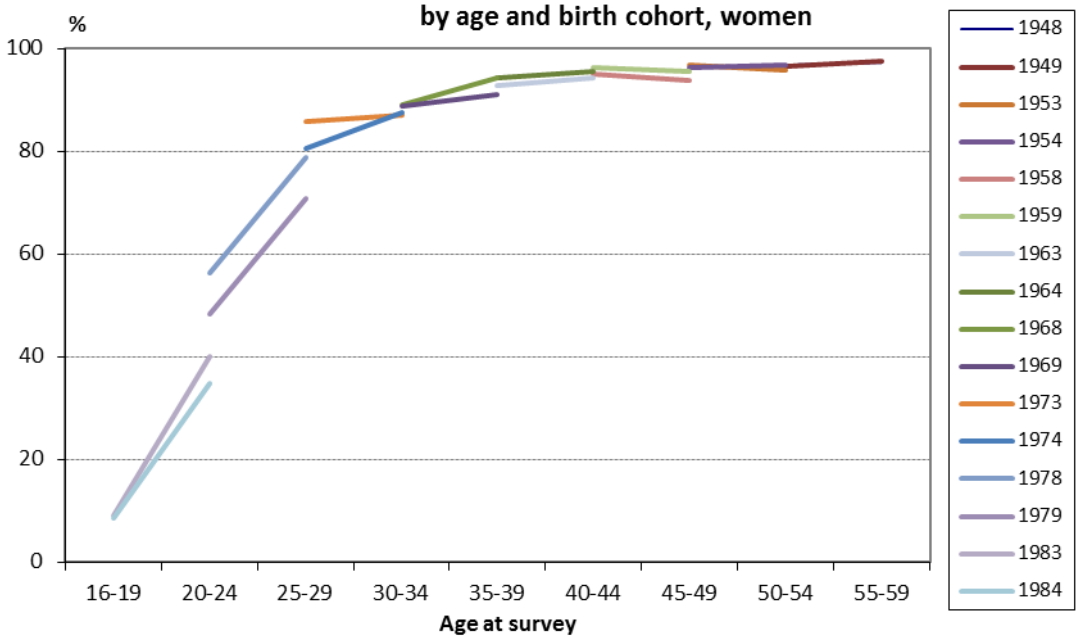


Fig 24. Proportion ever married by age and birth cohort, men

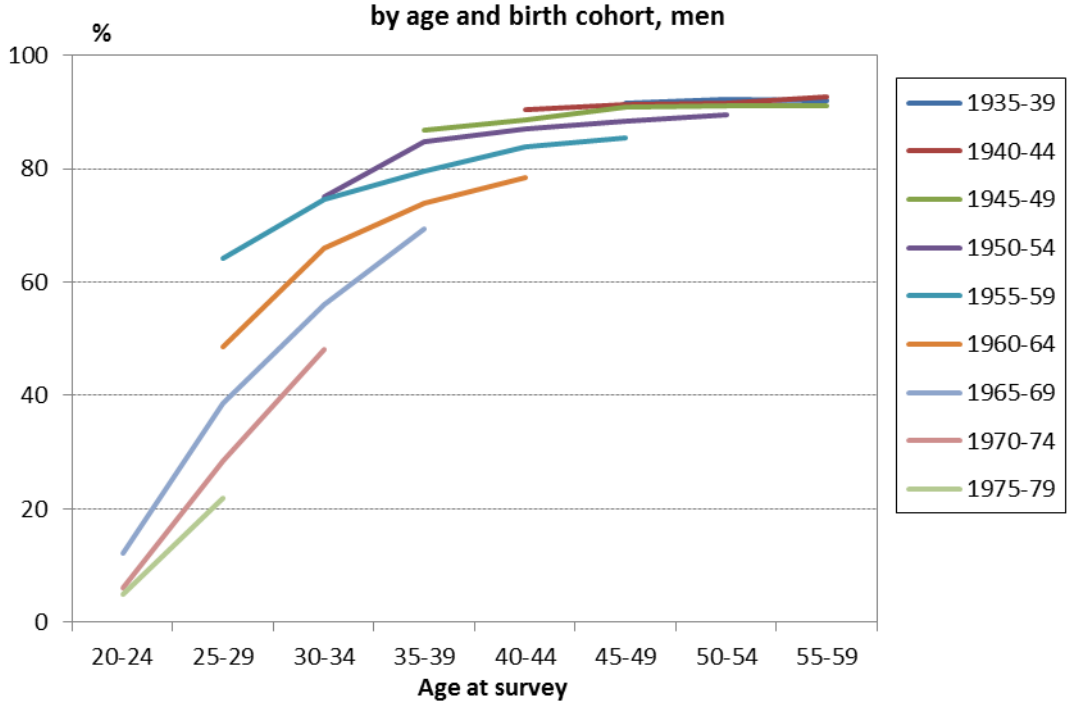
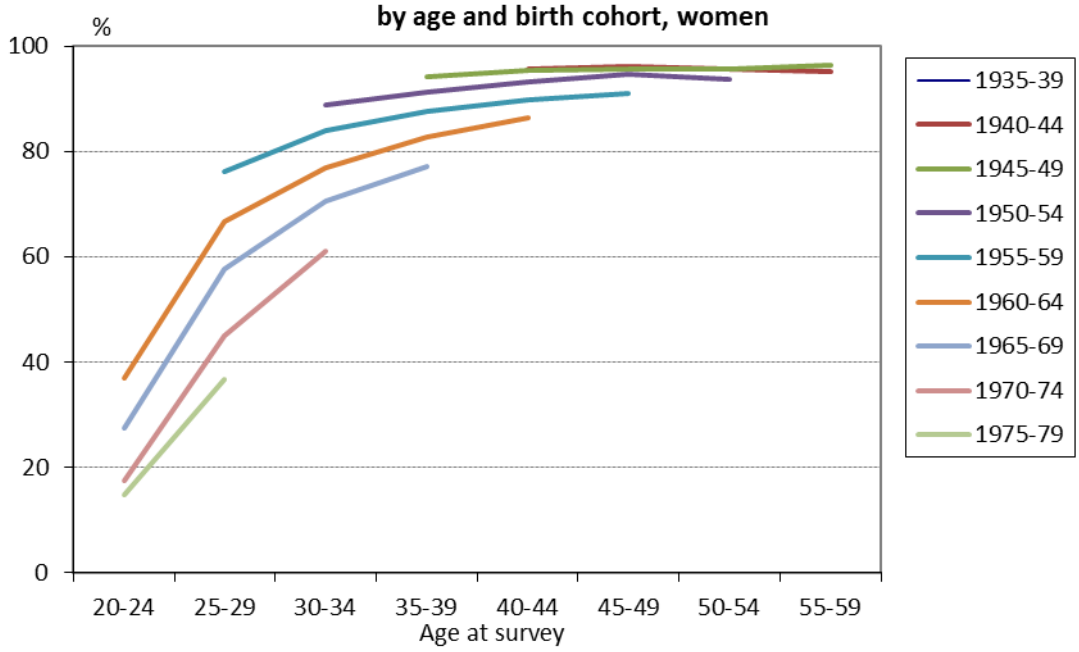


Fig 25. Proportion ever married by age and birth cohort, women



Figures 24 and 25 show the proportions ever married by cohort and age at survey. Data from the 1986 GHS onwards are used to plot the distribution for men, whilst we use data from the 1979 GHS onwards to plot the distribution for women. For clarity birth cohorts are grouped into five year intervals starting with the 1935-39 cohort and ending with the 1975-79 cohort. Among both men and women the expected inter-cohort trends are seen. Of interest here, is the fact that at above age 40 the proportions ever married remain fairly constant within a cohort. The only exception are women born in 1950-54 who appear to be less likely to have ever married when they are being reported on in recent survey rounds.

4.3 HOW CONSISTENT ARE RETROSPECTIVE AND CONTEMPORANEOUS REPORTS OF COHABITATION IN THE GENERAL HOUSEHOLD SURVEY?

GHS data on current cohabitation should roughly equate to retrospective data for the same time period. However, past research suggests that in practice this is often not the case (Murphy, 2000; Manning and Smock, 2005; Morgan and Hayford, 2008; Teitler et al 2006). A number of reasons for these differences have been put forward. Firstly, the samples upon which retrospective and contemporaneous reports are made are not the same (Murphy, 2000). The GHS in more recent years will include immigrants to and exclude emigrants from Britain. Retrospective data are subject to selective survival in that some of those living in the earlier period will have died. Secondly, it is well known that cohabitation is difficult to measure, encompassing a wide range of situations (from short-term situations to on-off relationships to longer term relationships which more resemble marriage). Unlike marriage, cohabitation is often a gradual process with no obvious start date. The lack of saliency is highlighted by Hayford and Morgan (2008) as the reason why retrospective reports of cohabitation in the US National Survey of Family Growth were biased downwards for time periods further in the past. Thirdly, the increased social acceptability of cohabitation over time may mean that respondents are more willing to report past cohabitations in recent survey rounds (Murphy, 2000). Respondents may have been less willing to disclose contemporaneous cohabitations during the 1970s or 1980s when cohabitation was less normative.

If errors in the retrospective and contemporaneous reporting of cohabitation were random then they would create ‘noise’ in any analysis of trends and determinants of

cohabitation. However, if personal attributes, for example, gender, age, socio-economic status or partnership outcome, are systematically associated with the reporting of partnership status or partnership events, then estimates of the prevalence or determinants of cohabitation will be biased (Teitler et al, 2006). Murphy (2000) found that retrospective reports by women of cohabitation in the GHS were somewhat higher than contemporaneous ones. He suggests that that respondents in receipt of welfare benefits may be unwilling to report current cohabitation since they may perceive a risk of losing social security benefits. He cites the higher percentage of lone parents and lower percentage of cohabiting couples observed in the GHS as compared to the British Household Panel Survey as evidence in support of this argument. If this is true then reports of current cohabitation according to financial situation will be biased. Teitler et al (2006), using repeated measures of partnership status from the United States Fragile Family Survey, compared the mother's report of cohabitation at the time of her child's birth to her retrospective report one year later. They found that, on average, retrospective reports of cohabitation were higher than contemporaneous ones, but that mothers who were no longer living with the father of their child were significantly more likely to revise downwards their retrospective report of cohabitation. Hence there are likely to be systematic biases in the retrospective reporting of cohabitation according to the outcome of the relationship.

In the following analyses we assess the consistency of contemporaneous and retrospective reports of marriage and cohabitation within the GHS, according to gender, age and length of recall period. We focus on the retrospective reports collected from 2000 onwards since these should, in theory, contain information on all past marriages, all past periods of premarital cohabitation and almost all periods of past cohabitation that did not end in marriage. (Recall from section 4.1 that less than one percent of GHS respondents report four or more periods of cohabitation which ended without marriage.) Three different types of comparison are presented 1) a comparison of retrospective estimates with cross-sectional estimates from 10 years before, by survey year, 2) a comparison of retrospective estimates with cross-sectional estimates made 5 years before, by survey year, and 3) a comparison of retrospective estimates with cross-sectional estimates made 10 years before, by age at survey. We

carry out these three comparisons for three estimates: the overall percentages in a partnership, the percentage currently married and the percentage currently cohabiting[9].

In Figure 26 we calculate a cross-sectional estimate of the percentage of respondents aged 18 to 39 currently in a partnership based on reports within the 1990 to 1997 [10] GHS surveys. We compare this cross-sectional estimate with the proportions that are reported as having been in a partnership at this time as contained within the retrospective partnership histories collected ten years later. So, for example, we compare retrospective reports from the 2005 GHS with contemporaneous reports of cohabitation collected in the 1995 GHS. For both men and women, the retrospective reports for ten years prior to the survey appear to overestimate the percentage in a partnership. Comparison of Figures 26 and 27 suggests that this tendency is greater for a recall period of 10 years and less for five years prior to the survey. Differences in retrospective and contemporaneous reports of current partnership are greater for women and especially for the earlier GHS years. For example, retrospective reports of the percentage of women in a partnership are around 63% as compared with an estimate of around 59% derived from contemporaneous accounts.

[9] Note that cohabitation includes those cohabiting prior to marriage and those cohabiting in relationships that did not result in marriage.

[10] Note that the cross sectional estimate for 1997 is based on the last quarter of the 1996/7 GHS.

Fig 26. Proportion currently in a partnership: Comparison of contemporaneous reports from survey year shown with retrospective reports from survey which took place ten years later

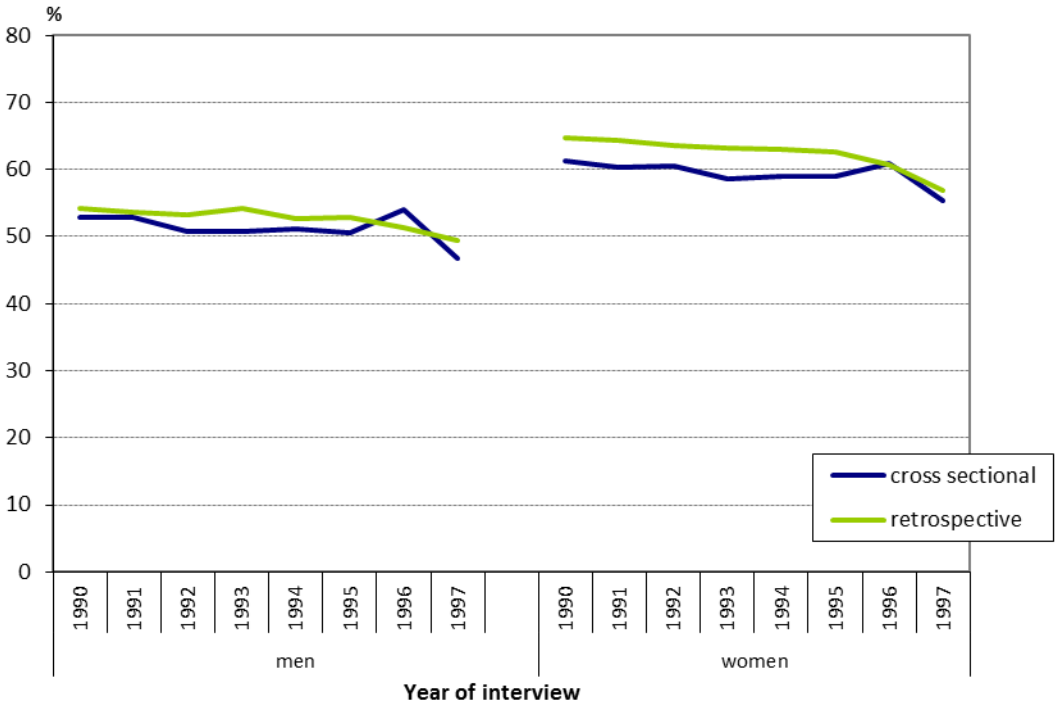
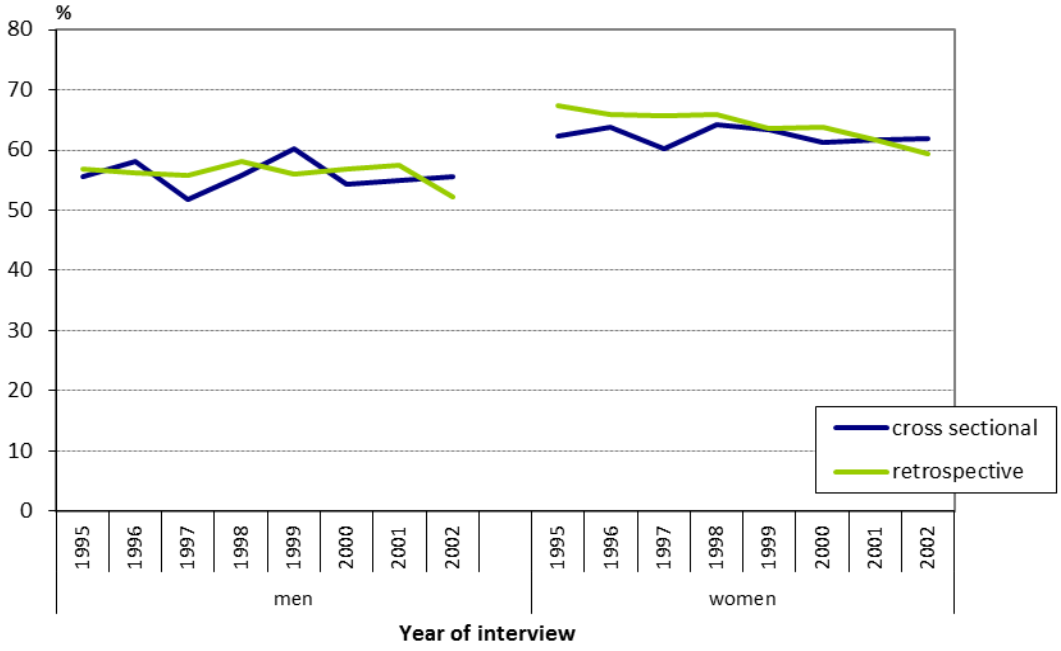
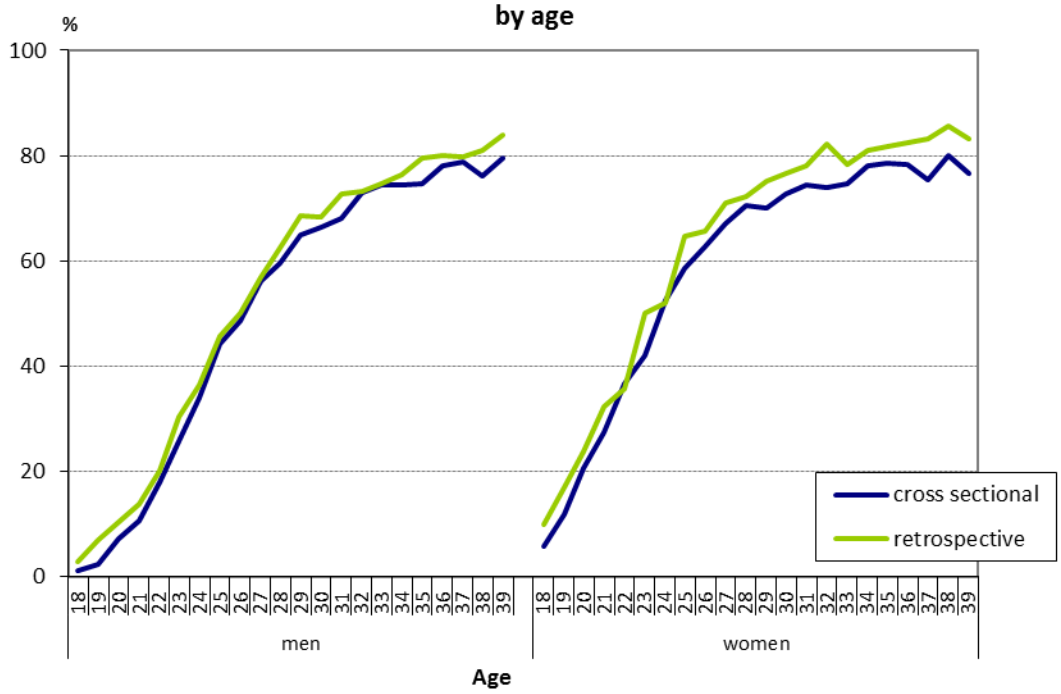


Fig 27. Proportion currently in a partnership: Comparison of contemporary reports from survey year shown with retrospective reports from survey which tool place five years later



Next we examine the fit between cross-sectional and retrospective reports of partnership status over the whole ten year period, classified by age at the time of the cross-sectional report (Figure 28). Among both men and women it is those in the older age groups – those aged 35 plus – who are most likely to report higher levels of partnership retrospectively than in contemporaneous accounts. For example, women in their late 40s, responding in the 2000-2007 GHS provide a retrospective estimate of cohabitation of around 82% compared with an estimate provided ten years earlier from those in their late thirties of around 78%.

Fig 28. Proportion currently in a partnership: Comparison of contemporary and retrospective reports over ten years (1990-1997), by age



Next, we repeat these three analyses, but this time looking separately at reports of marriage (Figures 29 to 31) and cohabitation (Figures 32 to 34). We find very similar patterns for both marriage and cohabitation. The proportions married and proportions cohabitating are both higher in retrospective than contemporaneous accounts. In both types of partnership the discrepancies are larger for women than for men. For the reporting of marriage, the estimates are most divergent in the five-year recall period, whilst for cohabitation the estimates for 10 years ago are more divergent than for five years ago. Inconsistencies in reporting by age are rather different for marriage (Figure 31) than for cohabitation (Figure 34). Discrepancies between

retrospective and contemporaneous estimates of the percentage currently married are greater for older age groups. Whereas there is less of an obvious age pattern in the discrepancies in the reporting of cohabitation – the differences being greatest among those in their twenties when the prevalence of cohabitation is highest.

Fig 29. Proportion currently married: Comparison of contemporary reports from survey year shown with retrospective reports from survey which took place ten years later

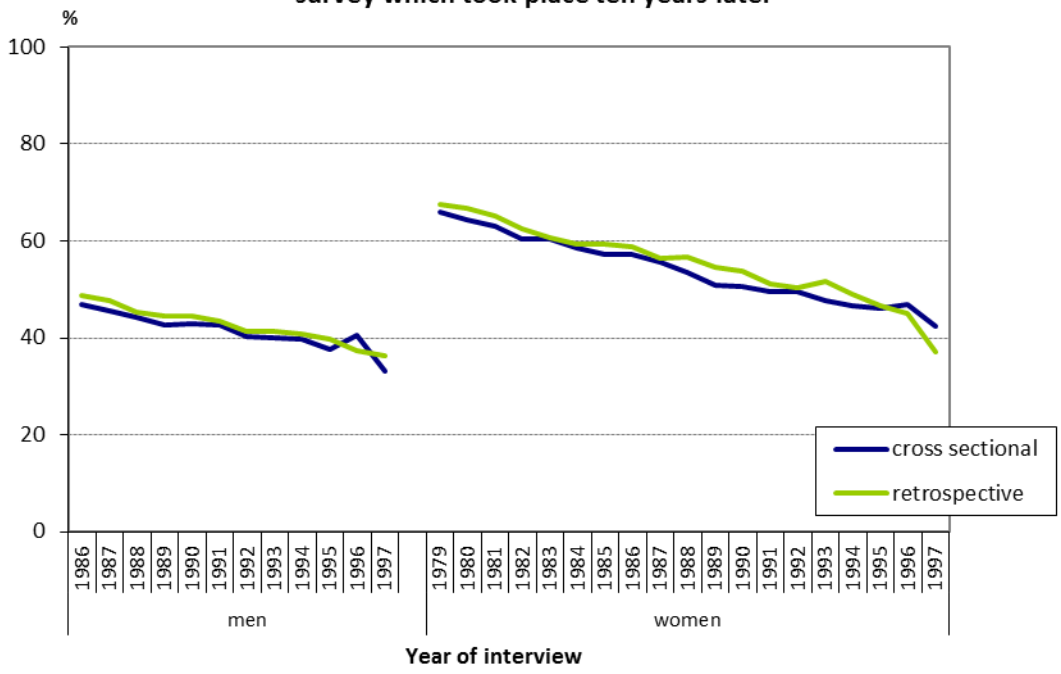


Fig 30. Proportion currently married: Comparison of contemporary reports from survey year shown with retrospective reports from survey which took place five years later

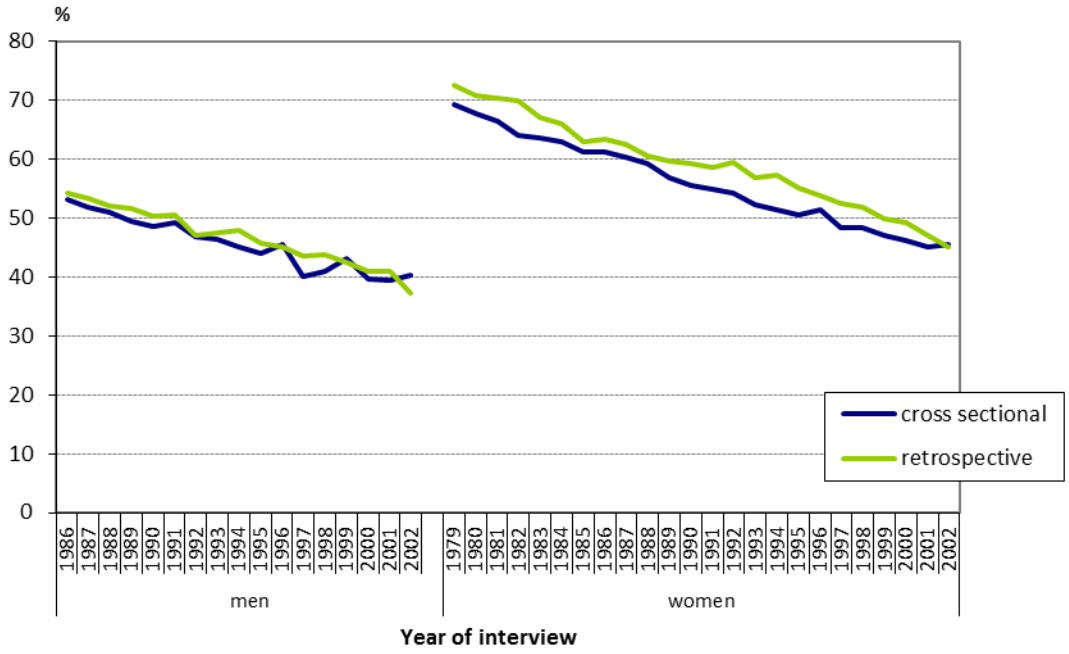


Fig 31. Proportion currently married: Comparison of contemporary and retrospective reports over ten years (1990-1997), by age

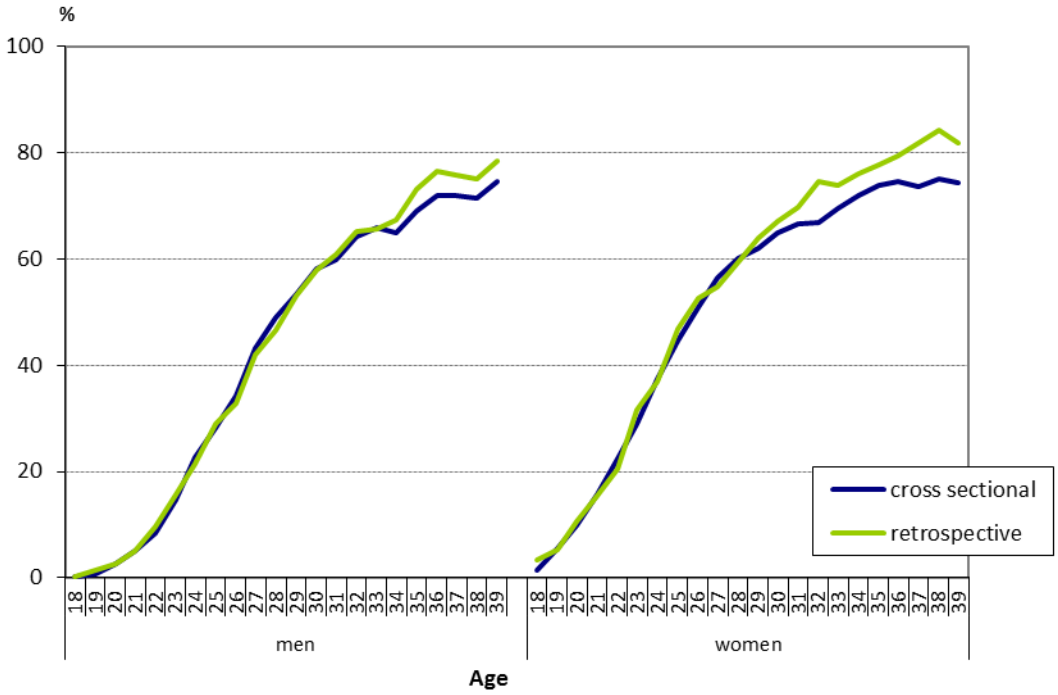


Fig 32. Proportion currently cohabiting: Comparison of contemporary reports from survey year shown with retrospective reports from survey which took place ten years later

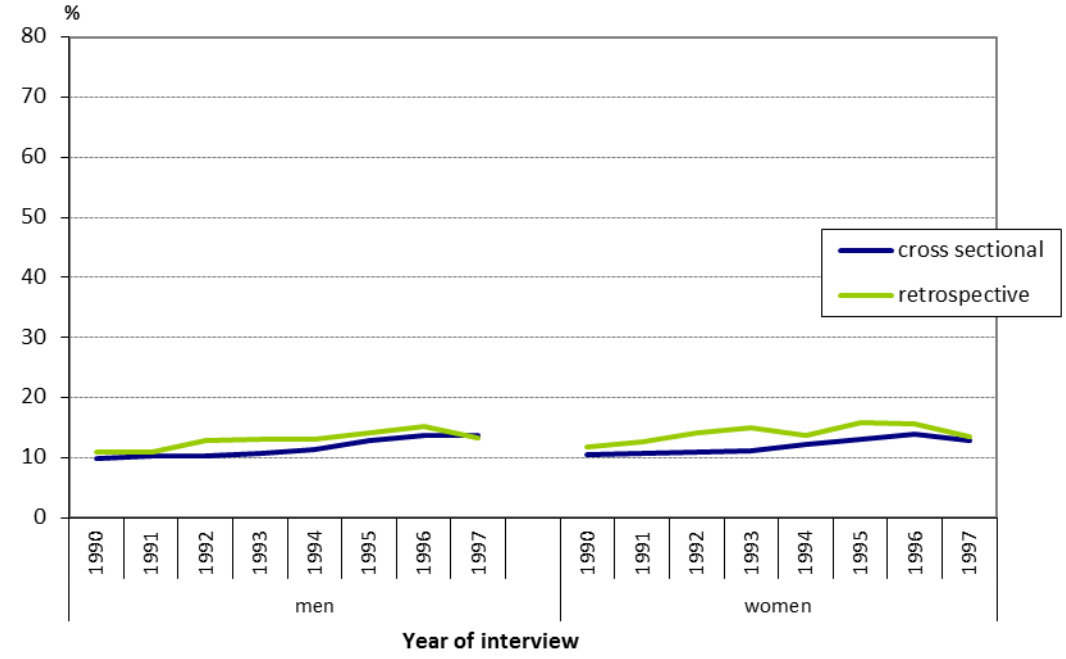


Fig 33. Proportion cohabiting: Comparison of contemporary reports from survey year shown with retrospective reports from survey which took place five years later

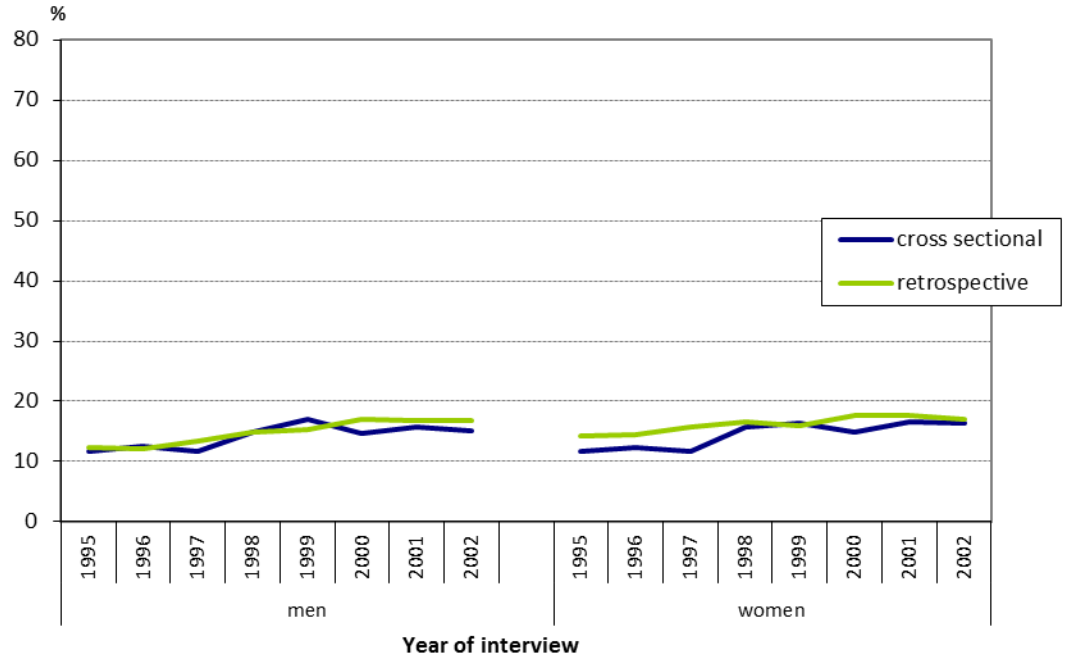
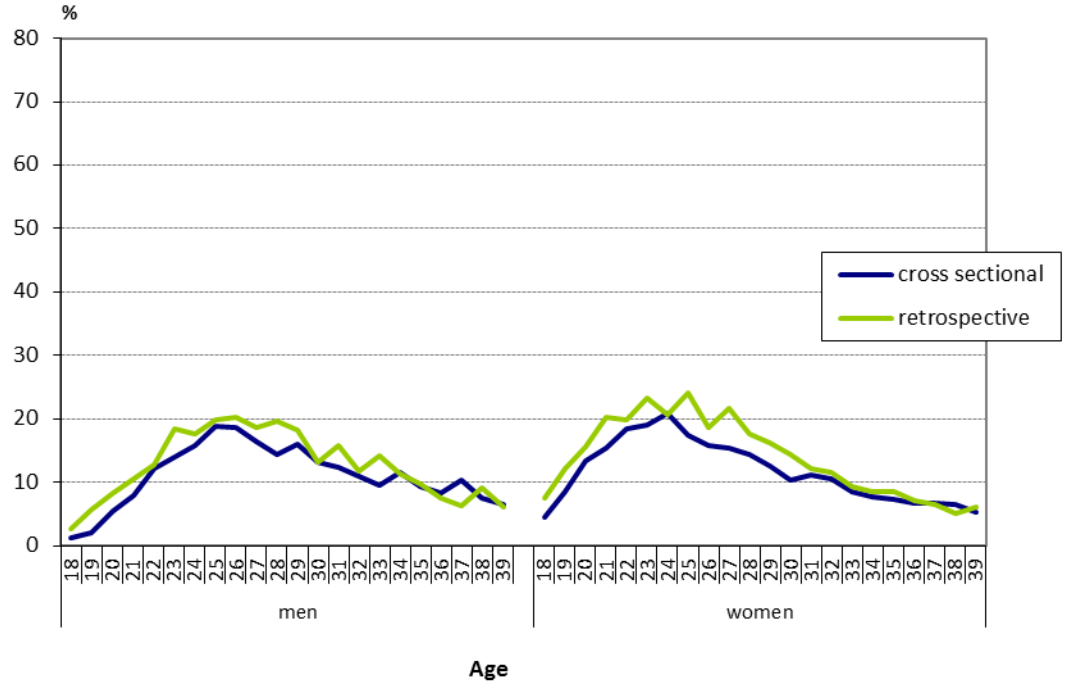


Fig 34. Proportion currently cohabiting: Comparison of contemporary and retrospective reports over ten years (1990-1997), by age



5. SUMMARY

The GHS provides an important data source for studying trends and patterns in partnership formation in Britain over the past thirty years. This document investigates the quality of the partnership history data collected in these surveys. We have shown differential non-response to the GHS by marital status and have demonstrated how this has increased over time. Increasingly non-response to the Family Information section of the GHS questionnaire has occurred among older, ever married persons. We have demonstrated that the application of the CPC-FI weights that take account of both household level non-response and individual non-response to the Family Information section improves the consistency of estimates of marriage both across survey rounds and between the GHS and vital registration. Since marriage is a legal event we are able to make external comparisons between GHS estimates of marriage and vital registration. In general estimates, for example of the proportion ever married by age are consistent with vital statistics.

For both cohabitation and marriage we have undertaken a series of analyses to investigate the internal consistency of reports within the different rounds of the GHS. Intra-cohort trends, for example in the proportion ever married, are consistent and we find no evidence of any substantial under-reporting of marriage or cohabitation as was found for the reporting of births (Murphy 2009) which has, however, largely been corrected for using data on household composition (Ní Bhrolcháin et al., 2010). Comparison of contemporaneous and retrospective reports of partnership (based on retrospective reports from 2000 and contemporaneous reports from five and ten years earlier) have, on the other hand, highlighted a tendency for retrospectively reported levels of marriage and cohabitation to be higher than at previous GHS cross-sections. The discrepancies are larger for women than for men. For the reporting of marriage the discrepancies are greatest for older men and women. For reports of cohabitation no obvious age trend is observed. Whilst these discrepancies should be noted, it is encouraging that the differences are not very substantial.

The tendency for retrospective reports of cohabitation in the GHS to be higher than contemporaneous ones was also found by Murphy (2000). He suggested that survey respondents in receipt of some types of welfare benefit might be unwilling to divulge a cohabiting partnership to an interviewer. Without longitudinal individual level data comparing reports over time for the same respondents, this hypothesis cannot be tested but remains plausible. On the other hand, retrospective reports of

marriage are also higher than contemporaneous ones, and this suggests that the cause may not be specific to cohabitation *per se* and so further explanations need to be investigated.

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