Sexual morality and family attitudes in Britain:
The role of cohort replacement and period effects in attitudinal change.

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1. Introduction

1.1 The de-institutionalisation of partnership and parenting

The role of ideational change as a key explanation behind the historic shifts in patterns of partnering and parenting in developed countries has been emphasised, not least by van de Kaa (1987). In describing these changes as a "second demographic transition", van de Kaa refers to the rise of progressive, post-materialist value orientations (as originally postulated by Inglehart, 1977) which prioritise self-fulfillment and equality, over more conservative attitudes. According to Cherlin (2004, p. 848), the decreased popularity of marriage and ascendance of cohabitation and same sex partnerships indicate that marriage has become deinstitutionalized. In a similar theme, other authors, most notably Beck and Beck-Gernsheim (1995; 2004) and Giddens (1991; 1992) have discussed how marriage (and other personal relationships) have become more individualised, with greater emphasis on self-fulfilment and equality in relationships. For critical reviews of this literature see, for example, Jamieson (1999), Lewis (2001), Heapy (2007), (Weeks, 2007).

Modern contraceptive technology means that sexual intercourse and procreation have become separated – a key revolution underlying Giddens' two concepts of the 'pure relationship' and 'sexual plasticity'. According to Giddens (1991) we are moving towards a 'pure relationship' in which "external criteria have been dissolved; the relationship exists solely for whatever that relationship can deliver". A pure relationship thus "sustains itself without traditional supports and stands premised only on the emotional rewards it can supply to each partner." Giddens argues that sexuality has become "doubly constituted as a medium of self-realisation and as a prime means, as well as an expression, of intimacy" (Giddnes, 1991, p. 164.)The "flourishing of homosexuality" (Giddens, 1992, p. 28) is thus a manifestation of this plasticity. Beck and Beck-Gernsheim (2004) also highlight the processes of individualisation, but, in contrast to Giddens, emphasize the tensions and contradictions that can occur within contemporary relationships (Heapy, 2007).

The role of the State and other institutions in promoting family change is unclear. For Weeks (2007. p. 89), the introduction of the Welfare State was central in promoting the conditions necessary for family change. Furthermore, he highlights what he calls a "permissive revolution" during the 1960s and 1970s - a period when key legal

changes occurred including the decriminalization of abortion, pornography, and homosexuality[i]. The 1980s, in Thacherite Britain, was a period of new moral conservatism. The implementation of Section 28 of the Local Government Act, 1988, which was designed to stop the promotion of homosexuality in schools, symbolised this. With hindsight it is clear that the enactment of Section 28 helped galvanize the hitherto disparate gay and lesbian community "fuelled by anger at the neglect of lesbian and gay issues in the early [AIDS] epidemic" (Weeks, 2007, p. 95.) into lobby groups such as Stonewall. The latter played a crucial role in the legislative changes to follow in the subsequent 20 years (Shipman and Smart, 2007).

Even into the early 1990s, the Conservative government failed to equalise the age of consent for homosexuals – reducing it to 18 only in 1994. It took until 2000 for the New Labour Government (acting against the voting of the House of Lords) to equalise the age of consent to 16. Since then, the speed of legislative change has been fast, with homosexual couples given legal recognition within the 2004 Civil Partnership Act, and same-sex parents given important new rights within the 2008 Human Fertilisation and Embryology Act. The requirement that fertility clinics consider 'the need for a father' will be replaced with 'the need for supportive parenting' from 1 October 2009. Hence fertility clinics will not be able to discriminate against lesbian couples on these grounds.

The speed with which homosexuality in Britain has gone from being a criminal offence in England (1966) to a legalised union with similar rights to heterosexual marriage (2004) is striking. But, to what extent do these legislative changes lead, rather than reflect public morality? It has been suggested that the introduction of the Civil Partnership Act was not so much a response to rapidly changing public opinion but a rational response to an irrational situation (Duncan, 2007). Shipman and Smart (2007) argue that the speed with which the Civil Partnership legislation was introduced probably reflects the increased integration of the European Convention on Human Rights into English Law, and the successful introduction of similar legislation for same-sex partners in other western democracies (although not without controversy in the US).

Most theorists agree that social attitudes, norms and behaviours change through one of two mechanisms: cohort replacement (succession), and changes within individuals

due to either ageing effects and /or period effects. (See, for example, Ryder, 1965; Firebaugh, 1997; Alwin & McCammon, 2004; Glenn, 2005). . The idea of there being generations is founded on the premise that individuals' attitudes and orientations are *formed when they are growing up* and that they *stay with them* throughout their lives. The specific socio-economic and cultural context within which the cohort grew up therefore gives them a shared identity. Changes within individuals due to ageing effects could be biological or psychological including having experienced more life course events. Period effects refer to situation where a population experiences a historical event e.g. depression, war, or social movement e.g. Feminist movement 1960s-70s that spread changes in attitude among *all* age groups.

Whilst previous empirical research has considered the sexual revolution and feminist movements of the 1960s and 1970s in terms of possible cohort and period effects on public morality (Glenn, 2005; Scott, 1998), less attention in the UK has been paid to the more recent changes in family behaviour, notably the acceptance of extra-marital childbearing and same sex partnerships. According to Weeks these revolutions should be seen as part of a continuous liberalisation since the 1960s which does not seem to have stopped. Weeks focuses on (his own) 1945 birth cohort, the first to grow up within the new Welfare State, reaching their twenties in the mid 1960s. He argues that relatively high wages and full employment of the 1960s together with the new welfare protectionism and the large cohort size meant that this generation had a particular role to play in the changing patterns of the family

But a number of questions remain incompletely answered in the literature. Which population sub-groups led these changes in attitude? How do these changes relate to the secularisation of society? Did all age groups experience a similar reaction to the anti-gay headlines resulting from the HIV/AIDS epidemic? This paper attempts to fill some of these gaps in our knowledge putting forward the following research questions.

1.2 Research questions
1. To what extent have attitudes to sexual morality changed over the last decades in Britain?
2. What contribution do cohort replacement and intra-cohort change make in fostering change?

3. What role do compositional changes e.g. in the education and religiosity of the population play in attitudinal change?

1.3 Structure of the paper

Next we review the timing of the key behavioural changes in family formation and dissolution in Britain to set the context for our analyses. Section 3 reviews the data set to be analysed, the sexual morality questions and the methods used. The descriptive and multivariate results are given in Section 4 followed by a discussion in Section 5.

2. The Timing of Key Changes in Demographic Behaviour in Britain

The precise timing of the start of the so-called "sexual revolution" is debated with some commentators (e.g. Petigny, 2004) highlighting changes in sexual behaviour during the Second-World War which preceded changes in the way in which sexual behaviour was openly talked about during the 1950s and 1960s. It is generally agreed that during the 1950s sexual intimacy was increasingly promoted as the glue of successful relationships and marital stability. In the 1950s and 1960s, people, especially women, "were likely to be having more sex, both before and within marriage" (Weeks, 2007, p. 67). The role of earlier childbearing in encouraging the marriage boom of the 1960s and early 1970s has been highlighted by Lewis and Kiernan (1996) who argue that the relaxation of sexual attitudes during the 1960s was associated with a decline in the age at which first sexual intercourse took place. With the use of modern contraception, particularly oral contraceptives, being fairly minimal during the 1960s many women became pregnant. The early 1960s marked the heyday of the so called "shot–gun" wedding with 22 % of all first marriages taking place in the mid 1960s having a premaritally conceived birth (OPCS, 1987). According to Cook (2005), the availability of the pill to unmarried women is the real "sexual revolution" in that this reliable contraception broke the link between sexual intercourse and childbearing, allowing women to postpone family formation and have sexual intercourse with a series of individuals whom they did not intend to marry.

The beginning of the 1970s marked a turning point in Britain, as it was for other European countries, after which first marriage rates began to fall, especially at younger ages, and the median age at first marriage increased from a minimum of 23

and 21 years in the late 1960s to around 31 and 29 years for men and women currently (ONS, 2009a). During the 1970s, cohabitation among never married indviduals began to increase, whereas hitherto it was probably confined to those whose marriage had previously broken down. In piloting the Family Formation Survey in the early 1970s, Dunnell (1979) noted that those who were cohabiting could be divided into two groups. The first saw their relationship as a long term commitment, with shared possessions, income and perhaps children. These couples were often unable to marry due to one partner waiting for a divorce. The second group were less likely to view the relationship as long term, did not share possessions or finance and were less likely to have, or to plan to have children, describing their cohabitation as "convenient".

Cohabitation became increasingly popular in the 1980s and 1990s. Comparable national data on rates of cohabitation across all age groups are available for women from 1983 and for men from 1986 from the British General Household Survey. As shown in Figure 1, around one quarter of men and women in their late twenties and early thirties are currently cohabiting, three times the level in the mid-1980s. Previous increases in cohabitation among young adults (aged 16-24) and among older persons (aged 45-54) appear to have levelled off in recent years[ii].

Figure 1 about here.

In the 1970s and early 1980s cohabitation before first marriage in Britain tended to be a childfree, precursor to marriage, and only later became a setting for childbearing and rearing (Kiernan and Estaugh, 1993). This is reflected in the trends in extra-marital fertility shown in Figure 2. Extra-marital births may be solely registered by the mother, or jointly registered by the mother and father. Up until around 1982 there was little increase in the proportion of births outside of marriage, but a very rapid increase in extra-marital fertility was seen between 1982 and 1988 (from 12% to 22% of births). Since then, the proportion of births taking place outside of marriage has continued to increase steadily, from 38% in 1998 to 44% in 2006. The majority of these births are jointly registered, and the percentage of jointly registered births to parents resident at the same address has remained fairly steady at around 75% (ONS, 2008) suggesting that the increase in non-marital fertility is generally associated with the increase in cohabitation. This said, Britain, perhaps unlike many other

European countries, also has a significant level of childbearing to women are not in any form of partnership (Berrington, 2003).

Figure 2 about here.

Whilst cohabitation is acting to delay marriage, marital dissolution has become a more common event for those who do marry. In Britain, the divorce rate rose sharply in the 1970s following the implementation of the Divorce Law Reform Ac 1969. Divorce rates levelled off during the 1980s and has remained fairly consistent ever since at about 13 divorces per 1000 married population (ONS, 2009a). Increasing, partnership dissolution is through the breakdown of cohabitation, about which less information is routinely available. Recent policy and legal attention has focused on the circumstances of individuals and their children following cohabitation breakdown (Smart and Stevens, 2000; Tennant et al. 2006). Of particular concern is the misconception amongst many cohabitors that they gain some rights through a form of 'common law marriage' if they have a child together or if they live together for a given time (both of which are not the case). In 2006 the Law Commission published a consultation paper on the financial implications of the breakdown of cohabitation, publishing its findings a year later (The Law Commission, 2007). Included in its recommendations is a new scheme of financial remedies (which cohabiting couples could opt out of). The proposals are yet to be implemented in terms of changes in legislation. The Government wants to wait for an evaluation of the effectiveness and costliness of similar legislation recently enacted in Scotland before making any decision for England and Wales.

Although recent sample surveys in Britain have routinely collected information on same sex partnerships, they remained statistically unchartered. However, in December 2005 the 2004 Civil Partnership Act came into force in the UK, allowing same sex couples to legally register their partnership and to thereby gain the same legal rights as married couples in a number of areas (including tax, employment and some pension benefits, an ability to apply for parental responsibility for the civil partner's child and recognition for immigration and nationality purposes). The total number of civil partnerships formed in the UK since the Civil Partnership Act came into force in December 2005 up to the end of 2008 is 33,956 (ONS, 2009b). Annual rates of entry

into civil partnership were highest in early 2006, presumably as a result of couples in long-standing partnerships taking up this new opportunity to formalise their union.

So, by the early 21st century we have a plurality of family forms. As noted by Coontz (2004, p. 974) "Almost any separate way of organizing caregiving, childrearing, residential arrangements, sexual interactions, or interpersonal redistribution of resources has bee tried by some society at some point in time, But the coexistence in *one* society of so many alternative ways of doing all of these different things – and the comparative legitimacy accorded to many of them – has never been seen before."

3. Data and Methods

3.1 The British Social Attitude Survey

Running since 1983, the British Social Attitude Survey (BSA) is an annual cross-sectional, nationally representative survey eliciting responses on a wide range of topics. Repetition of the same question in subsequent survey rounds permits the examination of net changes in attitudes over time among the British public. The longest series of questions relates to the approval of premarital, extramarital and homosexual intercourse. There is a more consistent time series of questions on marriage and cohabitation than there is on divorce. Recently, new questions on marriage, cohabitation and divorce have been included (Barlow et al. 2008; Duncan and Phillips, 2008). Whilst these provide valuable insight into cross-sectional differences in attitude, they tell us less about change over time since many of these questions have not been asked before. Hence for the purposes of this paper we focus on three sexual morality questions shown in Box 1. The sample size in each round of the BSA varies between 900 and 3000 respondents. Therefore there is a certain amount of imprecision surrounding the estimates and small year on year changes in responses are not necessarily statistically significant. The BSA provides a combined sample design and non-response weight for each respondent. All of the analyses shown here are weighted.

3.2 The Attitude Questions

Since the start[iii] of the BSA, respondents have been asked, at frequent intervals, the same three questions regarding sexual relations. The first question relates the acceptability of premarital sex, the second to sexual infidelity within marriage, and the third question focuses on the acceptability of same-sex relationships. As a shorthand we use the phrase attitudes to homosexuality to indicate the responses to the third question. In undertaking comparative research of the type that follows we make the assumption that the responses to the same question repeated over 22 years can be interpreted as a consistent time series, despite the changing socio-demographic context.

Box 1: Questions on sexual morality asked within the British Social Attitude Survey

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"If a man and a woman have sexual relations before marriage, what would your general opinion be? Please choose a phrase from this card"

"What about a married person having sexual relations with someone other than his or her partner?"

"What about sexual relations between two adults of the same sex?"

Answers on the card:
        1 = always wrong
        2 = mostly wrong
        3 = sometimes wrong
        4 = rarely wrong
        5 = not wrong at all
        6 = depends/varies

3.3. Methods

The research focuses on adults aged 18-83 years. Our period of observation is 1984 to 2006, i.e. 22 years. Respondents are categorized into 11-year age groups in order to track both inter-cohort and intra-cohort change. The quasi-cohort method (described below) assumes that the respondents aged 73-83 in 2006 are representative of the same group of people aged 51-61 in 1984[iv]. For all of the analyses the sexual morality variables have been re-coded into a binary response i.e. the proportion who say that the behaviour is "not at all wrong".

To address the first research question we undertake descriptive analyses using graphs of trends in attitude. Then, for two of the attitude statements, we attempt to get a handle on the extent to which these trends reflect age, period or cohort effects (research question 2). This is not a straightforward task due to the identification issue. That is to say, within a single cross-sectional survey age and cohort (when they are in their continuous form) are perfectly correlated (Age = Chronological Time – Birth date). Various solutions have been proposed to overcome these issues (Mason et al., 1973; Firebaugh, 1997; Glenn, 2005). In this paper we first compare the relative size of the intra-cohort and inter-cohort change in each of the attitudes using a quasi-cohort approach of the kind advocated by Firebaugh (1997). The cohorts used in our analyses are shown in Box 2. Here the trend data are decomposed into two orthogonal components: the between-cohort versus the within-cohort part of the trend. The within-cohort component can be interpreted either in terms of ageing or life cycle effects, or in terms of historic or period effects. The between-cohort component can be interpreted in terms of cohort replacement "if one is willing to assume that the age compositional differences between the cohorts are not actually producing the effect" (Alwin and McCammon, 2004, p. 40).

Box 2: The quasi-cohorts used in the analysis

Year of Birth	Age in 1984	Age in 1995	Age in 2006
1978-88	-	-	18-28
1967-77	7-17	18-28	29-39
1956-66	18-28	29-39	40-50
1945-55	29-39	40-50	51-61
1934-44	40-50	51-61	62-72
1923-33	51-61	62-72	73-83
1912-22	62-72	73-83	-
1901-11	73-83	-	-

There is debate however, as to the extent to which cohort differences can be interpreted as cohort effects – as noted by Alwin and McCammon (2004, p. 27) whilst cohort differences may be "thought to be a necessary condition for Generational differences, they by themselves may not be sufficient for saying that Generations truly exist in the sense of having a distinctive culture and shared identity".

Next, we fit, using the dummy variable approach put forward by Mason et al. (1973), a series of logistic regression models identifying age, period and cohort effects simultaneously (models not shown but available from authors on request). We vary the reference categories used and try alternative models where different groups are collapse groups together in order to break the correspondence between age, time and birth cohort. We find that the estimated odds ratios are quite stable, whichever, dummy variables are included, suggesting that the results can be interpreted (albeit cautiously).

Finally, we address research question 3. By incorporating independent variables such as education and religiosity into a multivariate analysis of attitude change we are able to demonstrate the extent to which the large cohort differences in sexual morality are associated with cohort differences in the composition of the population. Our first step is to assess the current association between education and religion and sexual morality. For this, we take the two most recent surveys from 2005 and 2006 and pool the data to provide a larger sample. We then perform a series of logistic regressions on the two binary outcomes (Tables 3 and 4). Covariates included in the model for 2005/6 are: birth cohort (10 year cohorts starting from 1923-33), sex, marital status (with a partner[v], without a partner and never married, without a partner and previously married), economic activity status (employed, student, unemployed, homeworker, retired, other), highest educational qualification (Degree, A level and below degree, CSE & O Level & equivalent, and none) and religious attendance (at least weekly, at least monthly, at least annual, occasionally, never attend and not known). The model is built up in steps (as shown in Tables 3 and 4). Model 1 contains just the dummy variables for birth cohort; Model 2 also includes sex and marital status; Model 3 adds educational qualification and economic activity status, and Model 4 adds the dummy variables for religious attendance.

The next step is to gauge how much the change in sexual morality relates to the changing educational and religious composition of the population. For this we use all of the survey years from 1984 to 2006. In these models (Tables 5 & 6), we include, in addition to the socio-economic variables (as just described), survey year (annual years) birth cohort (ten year cohorts from 1901-11 to 1978-1988), and age group (with 18-39 years as the baseline and 11 year age groups subsequently). Again we build the model up in steps: Model one contains the dummy variables for age, period and

cohort; Model 2 additionally includes sex, marital status, economic activity status and highest qualification; Model 3 also includes dummy variables for religious attendance.

4. Results

4.1 To what extent have attitudes to sexual morality changed over the last decades in Britain?

We start with attitudes towards extra-marital sex. We find that over the past quarter of a century British attitudes towards infidelity have remained relatively stable. As noted by Duncan & Phillips (2008), faithfulness within marriage remains strongly supported. In 1984 59% said that extramarital sex was "always wrong" and a further 27% said was "mostly wrong". By 2006 these figures were similar at 54% and 31% respectively. This overall stability does mask some interesting cohort changes, however. Whilst the oldest birth cohorts are being replaced by more liberal cohorts, at younger ages, more conservative cohorts appear to be moving through. Since these patterns are somewhat different to the trends for the other two sexual morality questions we decide to concentrate our attention on the latter for the rest of the paper.

Figure 3 about here.

Figure 3 shows the overall trend over time in the proportion who respond that 'premarital sex' and `homosexual sex' are "not wrong at all". Overall, there has been an increase in the proportion taking a more liberal stance on sex before marriage (from 42% of those aged 18-83 saying "not wrong at all" in 1984 to 62% in 2006). This contrasts with the United States where the percentage approval of premarital sex has been fairly constant since the 1980s (Harding and Jencks, 2003). Acceptance of homosexuality is less widespread, but the degree of change over the 22 year period is striking. In 1984 only one in six respondents thought that homosexuality was "not wrong at all" compared to 40% in 2006. Also noteworthy is the reversal in the trend line and a shift to a more conservative stance towards homosexuality in the mid to late 1980s (as previously documented by Scott, 1998 and Crockett & Voas, 2003).

Figure 4 about here.

Closer inspection of age differences in response shown in Figure 4 reveals that, in all time periods, there are large age differences in the approval of pre-marital sex, with older persons being more disapproving. In 1984 for instance, two thirds of 18-28 thought that premarital sex was "not wrong at all" in comparison with less than one fifth of those aged 73-83. Twenty-two years later, in 2006, there remain striking age differences, but with a possibility that the very youngest age group may hold more traditional viewpoints than their immediate predecessors.

Figure 5 about here.

Figure 5 shows that the increased conservatism in attitudes to homosexuality from 1984-1987 was predominantly occurring at older ages. Since then, all age groups have increased in their acceptance of homosexuality, but the increase has been greatest at younger ages. As a result over the 22 year period, age differences in attitudes to homosexuality have widened considerably.

4.2 What contribution do cohort replacement and intra-cohort change make in fostering change?

Further insight can be gained by examining the summary information presented in Tables 1 and 2. We have split the observation period into two halves, examining the change between 1984 and 1995, and between 1995 and 2006. Birth cohorts lie on the diagonal. For example, those aged 18-28 in 1984 (the 1956-66 birth cohort) were aged 29-39 in 1995 and aged 40-50 in 2006. Following previous authors (e.g. Firebaugh, 1997; Scott, 1998) we calculate intra-cohort change as the change in the percentage observed for cohorts as they move down the diagonal. Inter-cohort change is calculated as the difference in the percentage observed for the same age group for two consecutive birth cohorts. The change for all age groups shown at the bottom is the average across all age groups (not weighted by cohort size). Overall we can see that inter-cohort change has been greater than within-cohort change. This is especially the case for attitudes to premarital sex. Intra-cohort change (or within cohort change) is more important for attitudes to homosexuality, particularly in the last decade.

Tables 1 and 2 about here.

For attitudes to premarital sex (Table 1) we can see that Weeks is correct that those born in the immediate post-war period do have significantly different attitudes to those born a decade earlier. For example, when aged in their 50s, 39% of those born in 1934-44 said that premarital sex was "not at all wrong" compared to 50% of those born 1945-55 at the same age. But what is also clear is that cohort change did not start with Weeks' post-war cohort nor was cohort change confined to this generation. If we compare the response of those born in 1934-44 when they were in their fifties, to the response of the generation that preceded them (those born in 1923-33 who were aged 51-61 in 1984) we can see that the percentage who thought that premarital sex was "not at all wrong" increased from 23% to 39%.

This said, the magnitude of the inter-cohort change in both time periods is greatest across these three generations i.e. those born 1923-33, those born 1934-44 and those born 1945-44. Less inter-cohort change is observed for more-recently born cohorts. If anything, those born in 1978-88 appear to have similar (or even slightly more conservative) attitudes towards premarital sex than those born 10 or 20 years previously. Within birth cohorts there is no significant trend in attitudes towards premarital sex.

Turning attention to attitudes towards homosexuality we can see that in the late 1980s and early 1990s, increased acceptance of homosexuality was being driven largely by cohort replacement (especially the introduction of a new generation born in the late 1960s and 1970s with more liberal ideas). Patterns of within-cohort change during this period (which witnessed the AIDS epidemic and moral conservatism of the Thatcher Government) are complex. Amongst older people, there is clear evidence of a move towards more conservative attitudes to homosexuality in the mid-to-late 1980s and early 90s, whilst amongst those making their transitions to adulthood (moving through their twenties) attitudes became more liberal. Subsequent to 1995, we see very significant liberalization of attitudes to homosexuality, as a result of both cohort replacement and intra-cohort change. Each new generation appears to hold more liberal views than the last. For example, when we look at responses at age 62-72, 20% of those born in 1934-44 thought that homosexuality is "not wrong at all" compared to 7% of those born 10 years previous. Cohort replacement is even more significant for younger age groups: 59% of those aged 18-28 in 2006 (who were born in the late

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1970s and 1980s) said that homosexuality is "not wrong at all" compared to 34% for those born just ten years earlier.

Within all of the birth cohorts there was a liberalisation in attitudes to homosexuality between 1995 and 2006. If we refer back to Figure 5, the data suggest a particularly large jump in positive responses between 1998 and 2000. This may relate to the change from Conservative to New Labour Government and renewed debate concerning the equalising the age of consent to 16 for homosexuals.

4.3 What role do compositional changes e.g. in the education and religiosity of the population play in attitudinal change?
So far we have documented large cohort changes in sexual morality. To what extent are these cohort differences related to the changing educational and religious composition of the cohorts? First, we examine, from a cross-sectional basis, educational and religious differences in sexual morality in 2005/6. Consider first to attitudes towards premarital sex (Table3).

Table 3 around here.

Odds ratios significantly greater than one in Table 3 indicate a greater likelihood of reporting that premarital sex is "not wrong at all". We can see large age/cohort differences as would be expected from our descriptive analyses. Model 2, however, suggests no significant differences in attitudes to premarital sex according to gender or marital status. Model 3 includes the covariates for educational qualification and economic activity. In 2005/6 attitudes to premarital sex are more positive among those with intermediate levels of education and less positive among those with degrees. Those who are looking after a home or retired are more negative about premarital sex than those who are currently employed. Model 4 in Table 3 includes the covariate for religious attendance. Approval of premarital sex is much less common among regular church goers. Comparing Model 3 with Model 4 we see that the parameter estimates for educational qualification are now reduced, suggesting that some of the previously observed educational differences are due to greater religious activity among those most educated.

Table 4 around here.

Next, we repeat the cross-sectional regression analysis of 2005/6 data – this time for the proportion who say that homosexuality is "not wrong at all" (Table 4). Unlike for attitudes to premarital sex, a significant gender difference is observed with women being more approving of homosexuality – this is consistent with earlier work of Crockett & Voas (2003). Those who are never married and not in a co-residential partnership are more approving than those in a couple. Model 3 in Table 4 introduces the variables for education and economic activity. Educational differences are marked – and are different in direction than for premarital sex. That is to say, approval of homosexuality is greater among those with more education. In 2005/6 the odds of reporting that homosexuality is "not wrong at all" are twice as high for those with degrees than for those with no educational qualifications. Model 4 introduces the additional covariate for religious attendance. Once again those who never attend church are far more likely to approve of homosexuality. Controlling for religiosity actually makes the previously observed educational differences more significant. In other words, once religious differences between educational groups is controlled for, educational differences in acceptance of homosexuality widen.

We know that over time, the educational experience of the British population has increased and that levels of religious observance and attendance have declined. Our next analyses examine the extent to which changes between 1984 and 2006 in sexual morality are associated with this changing composition of the population. The results are shown in Tables 5 and 6 for premarital sex and homosexuality respectively. Model 1 includes the covariates for calendar year, birth cohort, and age group (with 18-30 grouped as the reference group in order to break the A-P-C correspondence). Model 2 includes gender, marital status, economic activity and educational attainment. Model 3 includes the additional religious attendance.

Tables 5 and 6 around here.

For both premarital sex and homosexuality, age, period and cohort effects appear to be significant. Period effects appear to be stronger for attitudes to homosexuality, with the increased conservatism of the mid the late 1980s being followed by increased liberalism. Model 2 suggests that over the whole period 1984-2006, women appear to be slightly less accepting of premarital sex than are men, but women are significantly more accepting of homosexuality than are men. People with degrees are significantly

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less likely to approve of premarital sex, but more likely to approve of homosexuality. Comparison of the parameter estimates for birth cohort in Model 1 and 2 in Table 5 suggests that cohort difference in attitudes to premarital sex are largely unaffected by the educational composition of the population. However, the parameter estimates for birth cohort are reduced in magnitude when comparing Model 1 and 2 in Table 6. That is to say, the changing educational composition of the population is important in 'explaining' the increased acceptance of homosexuality among younger cohorts.

Finally, we include the covariate for religious attendance in both of the regression analyses (Model 3 in Tables 5 and 6). The parameter estimates for period and for age are unchanged in both models. However, the parameter estimates associated with birth cohort are reduced significantly for both outcomes. In the case of attitudes to homosexuality (Table 6) controlling for the changing religiosity of sample, results in birth cohort being no longer significant.

5. Discussion

Our analyses of data from 22 years of the British Social Attitude Survey show that, unlike in the US, attitudes towards premarital sex and same sex relationships have continued to become more liberal in Britain. There has been a rapid increase in approval of same sex relationships in the 1990s and 2000s, following a move to more conservative attitudes in the mid-1980s. The latter is usually attributable to the negative HIV/AIDS publicity of the mid 1980s. Investigation of the role of cohort, age and period effects on attitude is problematic because of the identification problem. However, our results appear to be robust to assumptions made within regression analysis. Social change in attitudes to premarital sex are largely driven by cohort replacement. Acceptance of premarital sex is less common among those who are more religiously active. Hence, to some extent the increased acceptance of premarital sex is related to secularization and the decline in church attendance. More educated males and females in Britain are less likely to hold liberal attitudes to premarital sex, and cohort changes in the level of education are having an offsetting effect on the liberalisation of attitudes.

We find that social change in attitudes to same sex relationships results from both cohort replacement and within cohort change. Very large educational differences in the acceptance of same sex partnerships are found, with those with degree level qualifications being most accepting. As might be expected, religiosity is also negatively associated with the acceptance of same sex unions. Thus cohort differences in attitude to homosexuality are eliminated (statistically speaking) when the changing composition of the population in terms of education and religiosity are taken into account. There is some evidence for period effects, firstly in the mid- to late-1980s (more conservative) and then 2000-2006 (more liberal). These period effects appear to be non-linear: with those aged under 50 appear more willing to revise their attitude.

We find little evidence in support of Weeks' suggestion that the large post-war baby boom cohort played a distinct role in these movements. Those born in the late 30s and early 1940s also appear to have significantly more liberal attitudes to those born in the first two decades of the century.

Our findings support the suggestion made by Beck and Beck-Gernsheim (2004) in that "what is now asserting itself is much more than simple diversity, it is the

normalization of diversity, whether in family law, the self-images of family members, or the observational viewpoint of sociology".

Finally, our findings support those of Crockett and Voas (2003) who argue that "…anti-homosexual attitudes among the British population may become increasingly confined to Christians, and in particular to the minority of observant Christians." If this is the case then future trends in the acceptance of homosexuality will lie in cohort changes in the percentage of the population who actively attend religious service (and presumably what the churches are teaching with respect to same sex couples).

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Table 1: Percentage who say that premarital sex "is not wrong at all" by age and survey year.

Age group	1984	1995	2006	Inter-cohort change 84-95	Intra-cohort change 84-95	Inter-cohort change 95-06	Intra-cohort change 95-06
18-28	67.8	72.7	66.9	4.9	Na	-5.8	Na
29-39	59.0	68.1	78.5	9.1	0.3	10.4	5.8
40-50	43.5	59.0	72.8	15.5	0	13.8	4.7
51-61	23.1	38.6	59.8	15.5	-4.9	21.2	0.8
62-72	20.8	25.4	38.8	4.6	2.3	18.4	0.2
73-83	16.8	17.8	30.3	1.0	-3.0	12.5	4.9
All age groups	*43.3*	*52.3*	*61.9*	*8.4*	*-0.9*	*11.8*	*3.3*

Source: British Social Attitude Survey

Table 2: Percentage who say that sex between adults of the same sex "is not wrong at all" by age and survey year.

Age group	1984	1995	2006	Inter-cohort change 84-95	Intra-cohort change 84-95	Inter-cohort change 95-06	Intra-cohort change 95-06
18-28	18.7	34.0	58.5	15.3	-	24.5	-
29-39	26.2	32.6	52.8	6.4	13.9	20.2	18.8
40-50	20.8	26.5	49.1	5.7	0.3	22.6	16.5
51-61	10.9	15.4	34.5	4.5	-5.4	19.1	8.0
62-72	7.8	6.6	20.1	-1.2	-4.3	13.5	4.7
73-83	1.8	4.0	10.9	2.2	-3.8	6.9	6.9
All age groups	*16.4*	*22.1*	*39.7*	*5.5*	*0.14*	*17.8*	*11.0*

Source: British Social Attitude Survey

Table 3: Predictors of Attitude to Premarital sex 2005/6. Logistic regression of proportion who say that premarital sex is "not wrong at all".

	Odds ratios Model 1	Model 2	Model 3	Model 4
Birth cohort (ref 1923-33)				
1934-1944	1.66**	1.67**	1.52**	1.45**
1945-1955	3.41**	3.45**	2.44**	2.22**
1956-1966	5.35**	5.45**	3.69**	3.28**
1967-1977	7.79**	7.95**	5.68**	5.09**
1978-1988	5.55**	5.68**	4.08**	3.57**
Sex (ref males)				
Females		0.88	0.98	1.06
Marital stat. (ref marr/cohab)				
Divorced/Separated/Widowed		1.07	1.05	1.04
Never married		0.96	0.98	1.01
Highest educational qualification (ref degree)				
A level & below degree			1.50**	1.28*
CSE & O level			1.48**	1.18
None			1.23	0.90
Current economic activity (ref employed)				
Student			0.62	0.82
Unemployed			0.88	1.18
Homeworker			0.55**	0.54**
Retired			0.63**	0.66**
Other			0.89	0.94
Church attendance (ref never attend)				
At least weekly				0.09**
At least monthly				0.35**
At least annual				0.53**
Occasionally				0.72
Not known				0.35**

* significant at 10% level, ** significant at the 5% level, *** significant at 1% level

Source: British Social Attitude Survey

Table 4: Predictors of Attitude to Homosexuality 2005/6. Logistic regression of proportion who say that sex between two adults of the same sex is "not wrong at all".

	Odds ratios Model 1	Model 2	Model 3	Model 4
Birth cohort (ref 1923-1933)				
1934-1944	2.10**	2.12**	2.11**	2.08**
1945-1955	3.84**	3.96**	3.98**	3.76**
1956-1966	6.29**	6.39**	6.23**	5.71**
1967-1977	7.26**	7.40**	6.98**	6.12**
1978-1988	7.66**	7.05**	6.93**	6.08**
Sex (ref males)				
Females		1.47**	1.53**	1.62**
Marital stat. (ref marr/cohab)				
Divorced/Separated/Widowed		1.05	1.11	1.10
Never married		1.24*	1.26*	1.32*
Highest educational qualification (ref degree)				
A level & below degree			0.79*	0.68*
CSE & O level			0.69**	0.57**
None			0.52***	0.41***
Current economic activity (ref employed)				
Student			1.00	1.25
Unemployed			0.59**	0.66*
Homeworker			0.81	0.84
Retired			1.13	1.22
Other			1.02	1.06
Church attendance (ref never attend)				
At least weekly				0.16**
At least monthly				0.55**
At least annual				0.61**
Occasionally				0.46**
Not known				0.60

* significant at 10% level, ** significant at the 5% level, *** significant at 1% level

Source: British Social Attitude Survey

Table 5: Predictors of Attitude to Premarital sex 1984-2006. Logistic regression of proportion who say that premarital sex is "not wrong at all".

	Odds ratios Model 1	Model 2	Model 3
Survey (ref 1984)			
1985	0.93	0.94	0.93
1987	0.89	0.90	0.87
1989	0.94	0.95	0.97
1990	1.00	1.02	1.02
1993	1.33**	1.35**	1.43**
1995	1.22**	1.25**	1.22*
1998	1.65**	1.66**	1.68**
1999	1.23**	1.24**	1.24**
2000	1.90**	1.97**	2.06**
2003	1.97**	2.07**	2.18**
2005	2.03**	2.11**	2.19**
2006	1.77**	1.87**	1.96*
Birth cohort (ref 1901-11)			
1912-1922	1.00	0.99	0.92
1923-1933	1.18	1.13	1.02
1934-1944	1.67**	1.59**	1.34
1945-1955	2.57**	2.45**	1.91**
1956-1966	3.03**	2.88**	2.15**
1967-1977	3.32**	3.21**	2.25**
1978-1988	2.19**	2.18**	1.47**
Age Group (ref 18-39)			
40-50	0.74**	0.70**	0.72**
51-61	0.55**	0.51**	0.50**
62-72	0.42**	0.41**	0.38**
73-83	0.30**	0.28**	0.25**
Sex (ref males)			
Females		0.79**	0.90**
Marital stat. (ref marr/cohab)			
Divorced/Separated/Widowed		1.18**	1.15**
Never married		1.00	1.00
Highest qualification (ref degree)			
A level & below degree		1.35**	1.20**
CSE & O level		1.54**	1.27**
None		1.52**	1.13*
Current economic activity (ref employed)			
Student		0.70**	0.81*
Unemployed		0.85**	0.88
Homeworker		0.68**	0.70**
Retired		0.84**	0.88*
Other		1.01	1.07
Church attendance (ref never attend)			
At least weekly			0.13**
At least monthly			0.39**
At least annual			0.57**
Occasionally			0.60**
Not known			0.37**

* significant at 10% level, ** significant at the 5% level, *** significant at 1% level

Source: British Social Attitude Survey

Table 6: Predictors of Attitude to Homosexuality 1984-2006. Logistic regression of proportion who say that sexual relations between adults of the same sex is "not wrong at all".

	Odds ratios Model 1	Model 2	Model 3
Survey (ref 1984)			
1985	0.70**	0.69**	0.69**
1987	0.56**	0.55**	0.53**
1989	0.76**	0.74**	0.74**
1990	0.82*	0.79*	0.79*
1993	0.99	0.96	0.99
1995	1.35**	1.31**	1.30**
1998	1.43**	1.40**	1.39**
1999	1.78**	1.73**	1.74**
2000	2.44**	2.37**	2.40**
2003	2.77**	2.66**	2.75**
2005	2.78**	2.72**	2.77**
2006	3.03**	2.94**	3.06**
Birth cohort (ref 1901-11)			
1912-1922	1.85	1.87	1.75
1923-1933	1.74	1.70	1.56
1934-1944	2.50**	2.26*	1.94
1945-1955	3.18**	2.55**	2.03
1956-1966	3.27**	2.41*	1.85
1967-1977	3.83**	2.54**	1.87
1978-1988	3.68**	2.29*	1.66
Age Group (ref 18-39)			
40-50	0.81**	0.77**	0.80**
51-61	0.59**	0.55**	0.55**
62-72	0.38**	0.38**	0.37**
73-83	0.23**	0.23**	0.21**
Sex (ref males)			
Females		1.57**	1.71**
Marital stat. (ref marr/cohab)			
Divorced/Separated/Widowed		1.22**	1.20**
Never married		1.18**	1.19**
Highest qualification (ref degree)			
A level & below degree		0.67**	0.60**
CSE & O level		0.57**	0.48**
None		0.43**	0.34**
Current economic activity (ref employed)			
Student		1.26*	1.41*
Unemployed		0.96	1.01
Homeworker		0.67**	0.70**
Retired		0.84*	0.87*
Other		1.01	1.05
Church attendance (ref never attend)			
At least weekly			0.23**
At least monthly			0.56**
At least annual			0.69**
Occasionally			0.54**
Not known			0.45**

* significant at 10% level, ** significant at the 5% level, *** significant at 1% level
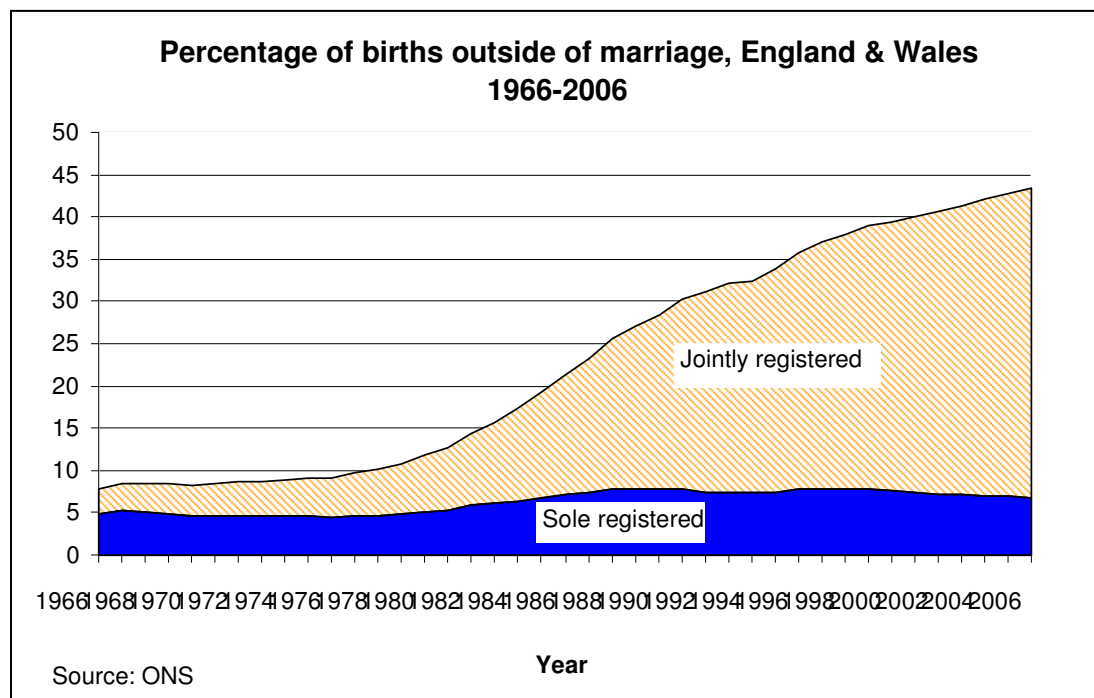
Source: British Social Attitude Survey

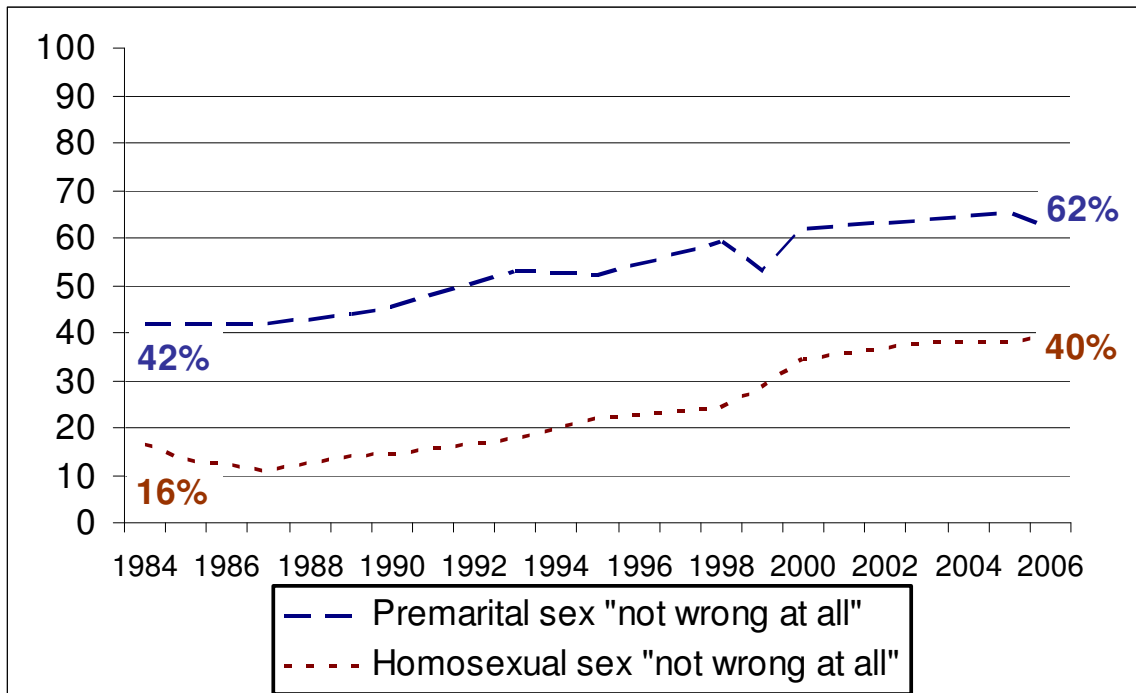Figure 1. Percentage of men and women cohabiting by age, Britain 1983-2006.
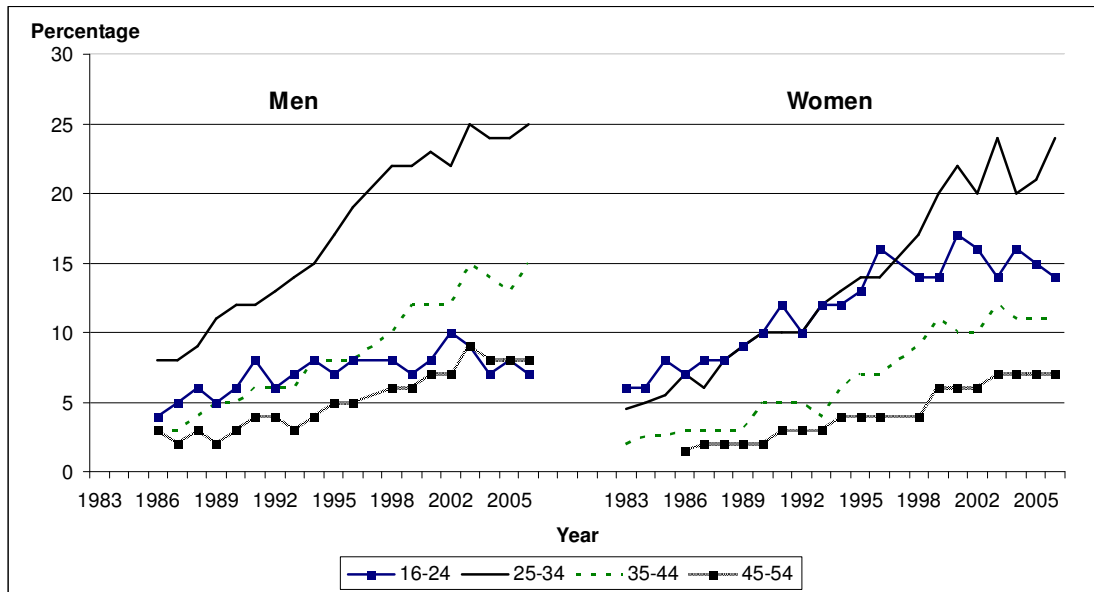
Source: General Household Survey

Figure 2. Percentage of births outside of marriage, England & Wales, 1966-2006.

Figure 3: Percentage of British adults aged 18-83 who say that premarital sex and homosexual sex are "not wrong at all".
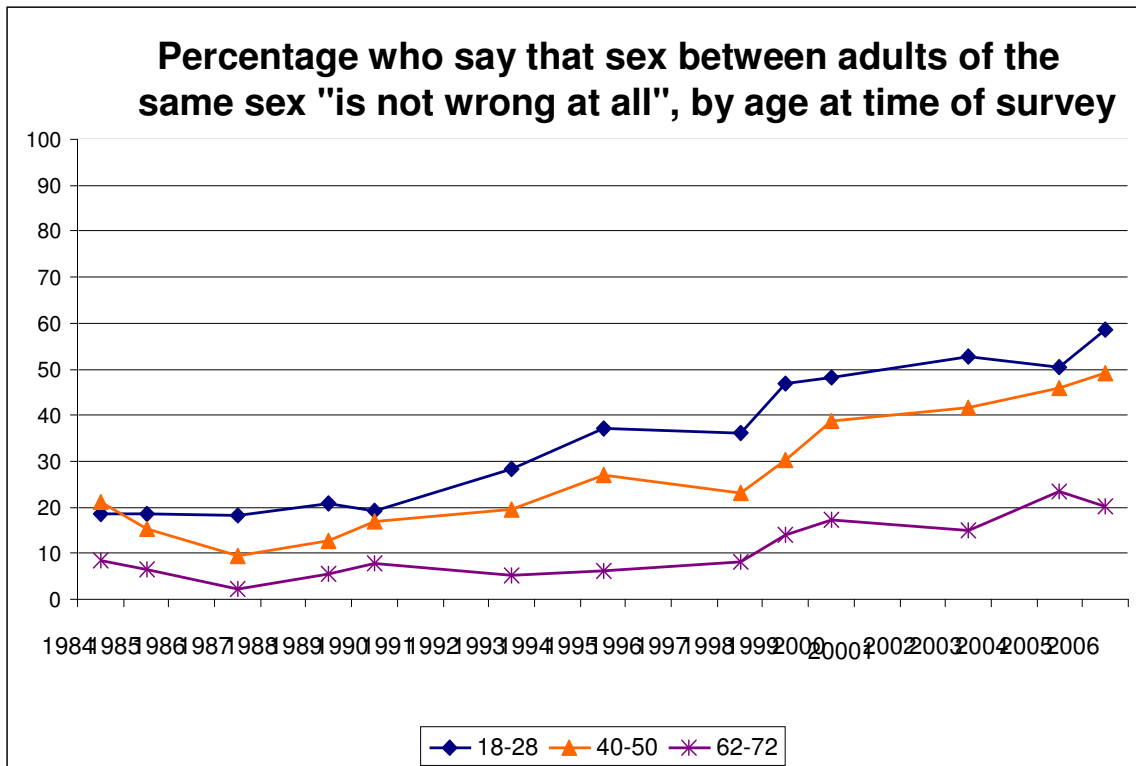

Source: British Social Attitude Survey

Figure 4: Percentage of British adults who say that premarital sex is "not wrong at all" by age at the time of the survey, and survey year. Note that not all of the age groups are shown for ease of interpretation.

Percentage who say that premarital sex "is not wrong at all", by age at time of survey
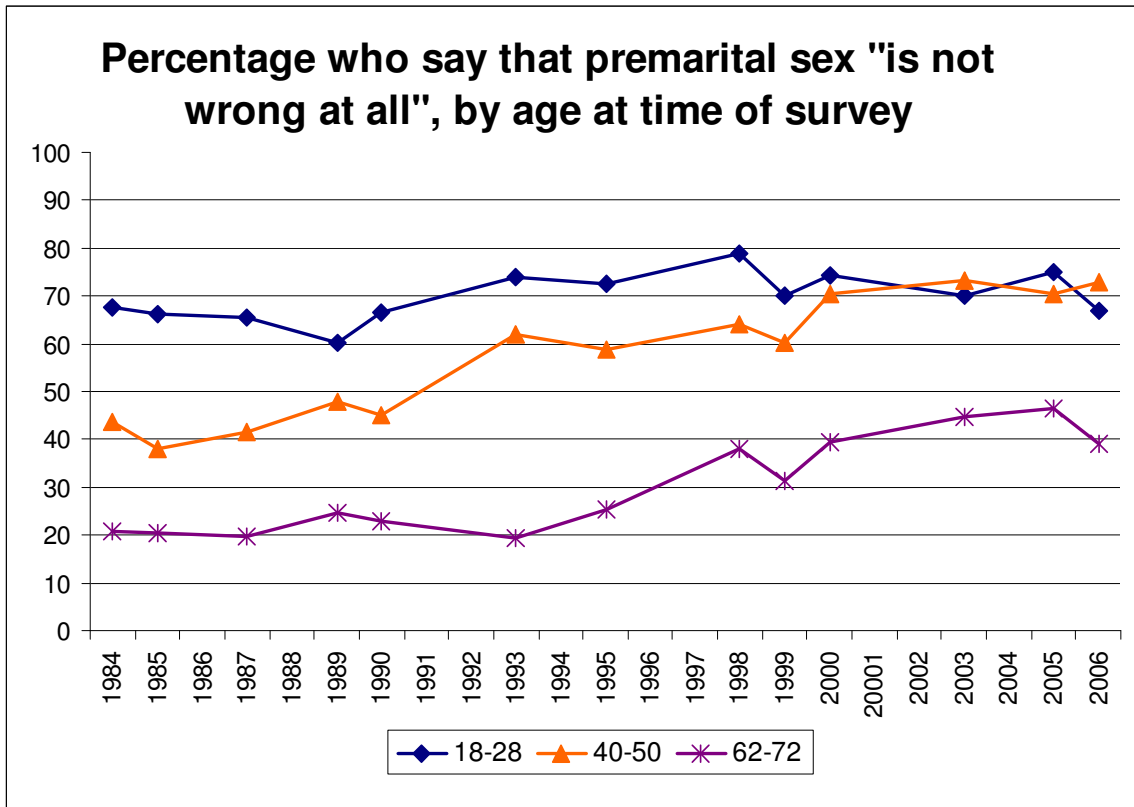
Source: British Social Attitude Survey

Figure 5: Percentage of British adults who say that sex between adults of the same sex is "not wrong at all" by age at the time of the survey, and survey year. Note that not all of the age groups are shown for ease of interpretation.

Source: British Social Attitude Survey

[i] The Sexual Offences Act of 1967 decriminalized male homosexuality in private rather than legalize homosexuality (Weeks, 2007).

[ii] The fluctuations reflect the sample size of the General Household Survey - around ten thousand households per annum.

[iii] In fact the question relating to extra-marital sex was only included from 1984, whilst those on premarital and homosexual intercourse were included from the start.

[iv] Hence, we assume that the British population is closed to migration (which of course it is not), or at least migrants are not selective in terms of their attitudes to sexual morality. We also assume that the dependent variable (sexual morality) does not relate to the risk of mortality. This is probably a reasonable assumption even though it is likely that orientations are associated with mortality risk – see, for example, recent evidence linking optimism with the risk of mortality from heart disease.

[v] Ideally we would like to be able to identify cohabiting and married couples separately, but this is not possible from the BSA.