


# Understanding 21st Century Relationships

A Compendium of Key Data

Gareth Lloyd and Rebecca Lacey

A photograph of a man and a woman sitting on a bed, their hands resting on the back of a baby who is lying on its stomach. The man is wearing a blue shirt and the woman is wearing a grey tank top. The baby is wearing a white onesie. A green blanket with white heart patterns is partially visible on the left side of the frame.

**CHAPTER 3**  
Sex, Fertility  
and  
Parenthood

# Understanding 21st Century Relationships

## A Compendium of Key Data

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### **About OnePlusOne**

OnePlusOne is a UK charity that strengthens relationships by creating resources that help families and frontline workers tackle relationship issues early.

We help couples and parents through a range of web-services, while our online learning equips front line workers with the skills to offer timely and effective face to face support to families.

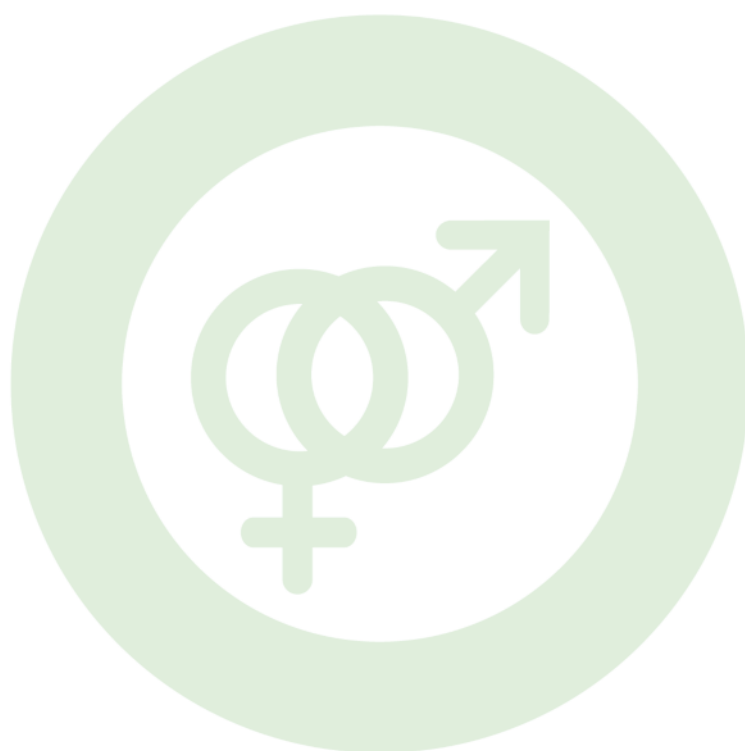
Everything we do is based on the latest research evidence. Our research builds the knowledge base on relationships and, by sharing what we know, we influence policy and the creation of services that work.

### **Acknowledgements**

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## Chapter 3: Sex, Fertility and Parenthood

“ *The UK has one of the highest total fertility rates of the European countries* ”










# Chapter 3: Sex, Fertility and Parenthood




The previous chapters discussed changes and trends in household composition and partnership forms during the last forty years. Parenthood and children feature in these statistical trends: for example, in terms of the number of children involved in family break ups, or the number of families in the UK with children. The Office for National Statistics (ONS) provides in-depth statistics on parenthood examining conceptions, pregnancy and birth. These data are important indicators of cultural and geographical population change both within the UK and abroad. A key theme running through this chapter is the age at which people become parents. This may be affected by a range of factors including economics, culture and decision making about parenthood.



## Headline Data

-  Conception rates (see following page for definitions of terms) in the UK fell around the turn of the century, but have recovered and returned to the levels observed in the early 1990s. In 2001, of every 1000 women aged 15-44 years there were around 70 conceptions. In 2009 there were just over 80.
-  London had the highest number of conceptions where 178,700 were recorded in 2010.
-  The lowest birth rate was found in the North-East region of England at 60.2 births per 1000 women aged 15-44 years. The birth rate was highest in London with 72.1 births per 1000 women. There were 723,913 live births in England and Wales in 2011.
-  The UK has one of the highest total fertility rates in Europe with 2.0 children per woman. Women aged between 30-34 were the age group with the highest number of births in 2009 with 202,457 births.
-  There has been a substantial increase in the mean age of mothers giving birth over the past 40 years. In 1971 the mean age of mothers was 26.6 years. It was 29.3 years in 2008.
-  The number of legal abortions amongst young women has increased over time, though these increases appear to be slowing. The number of abortions has not increased among older women as it has among younger women.
-  There has been a significant decline in the number of adoptions, with only 4,550 in 2010 across all age groups in England and Wales.

 *There has been a substantial increase in the mean age of mothers giving birth*

## Key terms in this chapter



The terms we use are those used by the Office for National Statistics (ONS), unless otherwise noted.

**Conception rates:** the number of children conceived within a single given year divided by the total population defined as eligible for conceiving (in this case, women in England and Wales aged 15 to 44 years of age) and multiplied by one thousand. Conception rates are presented as the number of conceptions per one thousand eligible women. This does not include miscarriages or illegal abortions, but does account for all live births, stillbirths and legal abortions.

**Birth rates:** the number of births among women within a single given year, divided by the total population defined as eligible for giving birth (comprising women in England and Wales aged 15 to 44 years of age, as with conception rates) and multiplied by one thousand. Births rates are presented as the number of births per one thousand eligible women. Birth rates show the numbers of pregnancies which result in live births only.

**Age specific fertility rates:** calculated by splitting women in the population into groups based on their ages, and calculating the percentages of women in each age range who gave birth. Fertility rates are therefore simply a measure of how many women gave birth grouped by age.

**Total fertility rates:** these figures are a little more complicated than basic fertility rates; they estimate the number of children a

woman is likely to give birth to over the course of her lifespan. Total fertility rates are estimated rather than observed figures, because they reflect the number of children that would have been born to a woman if current patterns of fertility persisted throughout her childbearing years. Total fertility rates are not therefore based on real longitudinal data; instead they are based on the lifespans of imaginary women.

**In Vitro Fertilisation:** a treatment whereby eggs are removed from the woman and fertilised with sperm in a laboratory before being implanted in the woman's uterus. In some cases this gives women the opportunity to conceive at an older age.

**Children in care or looked after:** those children whose birth parents are unable to provide on-going care in either a permanent or temporary capacity. They are voluntarily accommodated in line with the Children Act of 1989.

**Childcare:** refers to day-to-day caring for children (usually while their parents are working), and may include formal childcare, such as that provided by nursery schools and playgroups, or informal childcare, as may be provided by relatives and friends.

**Flexible working:** the opportunity for employees to have agreed flexibility in their working hours and locations.

To help the reader by highlighting interesting opportunities to consider trends and statistics in greater depth, talking points and focus points are included throughout. Further research and updated data are also indicated throughout the chapter.



**Talking points** encourage the reader to consider the wider issues that might underpin some of the effects and trends shown.



**Further resources** at [www.oneplusone.org.uk](http://www.oneplusone.org.uk)



**Further information** at [www.oneplusone.org.uk](http://www.oneplusone.org.uk)



**Focus points** provide greater detail on one aspect of the data.



**Further research** at [www.oneplusone.org.uk](http://www.oneplusone.org.uk)

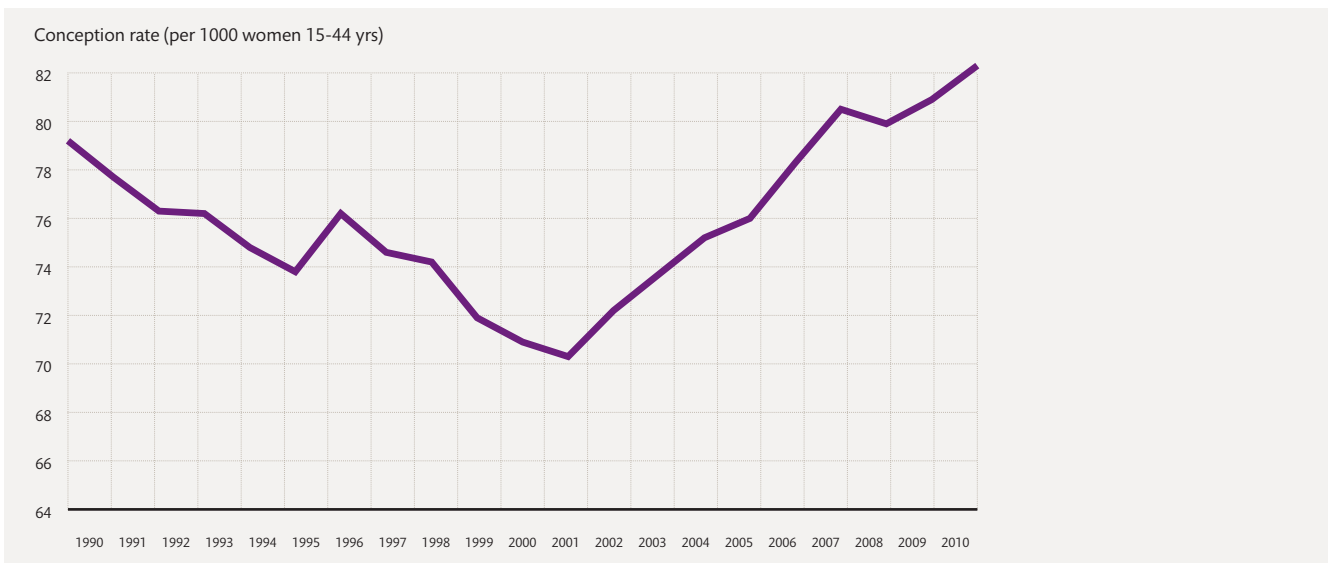


Be aware to check for **future updates** on data.

## Conception and Fertility

There are a number of statistics relevant to parenthood. These vary according to which milestone event is considered in becoming a parent. The ONS reports numbers and rates of conceptions and births in England and Wales along with fertility rates.

**Chart 3.1** Conception rate (per 1000 women 15-44 yrs), 1990-2010, England and Wales



Data source: ONS (2012) Conception statistics 2009

Conception rates detail the number of conceptions per 1000 women from a population. **Chart 3.1** shows the trend in conception rate for women aged 15-44 years between 1990 and 2010 in England and Wales.

Conception rates have fluctuated over the period shown. In 1990 there were 79.2 conceptions per 1000 women aged 15-44 years. In 2010 this was at a similar – even slightly higher – level of 82.3 conceptions per 1000 women aged 15-44 years. A dip in the conception rate during the 1990s resulted in a low of 70.3 conceptions per 1000 women in 2001. However there was a steady increase over the following decade. Further statistics provide an indication of why this occurred.

**Chart 3.2** shows both the number and rate of conceptions in women aged 15-44 years by area of England in 2010. The numbers, presented in the chart in multiples of 1000, demonstrate how conception numbers vary by regions of England. In terms of geography and numbers of conceptions, the most conceptions occurred in London in 2010 (approximately 178,700 conceptions in 2010). This is explained by the large number of women living within this area (commonly referred to as population density).

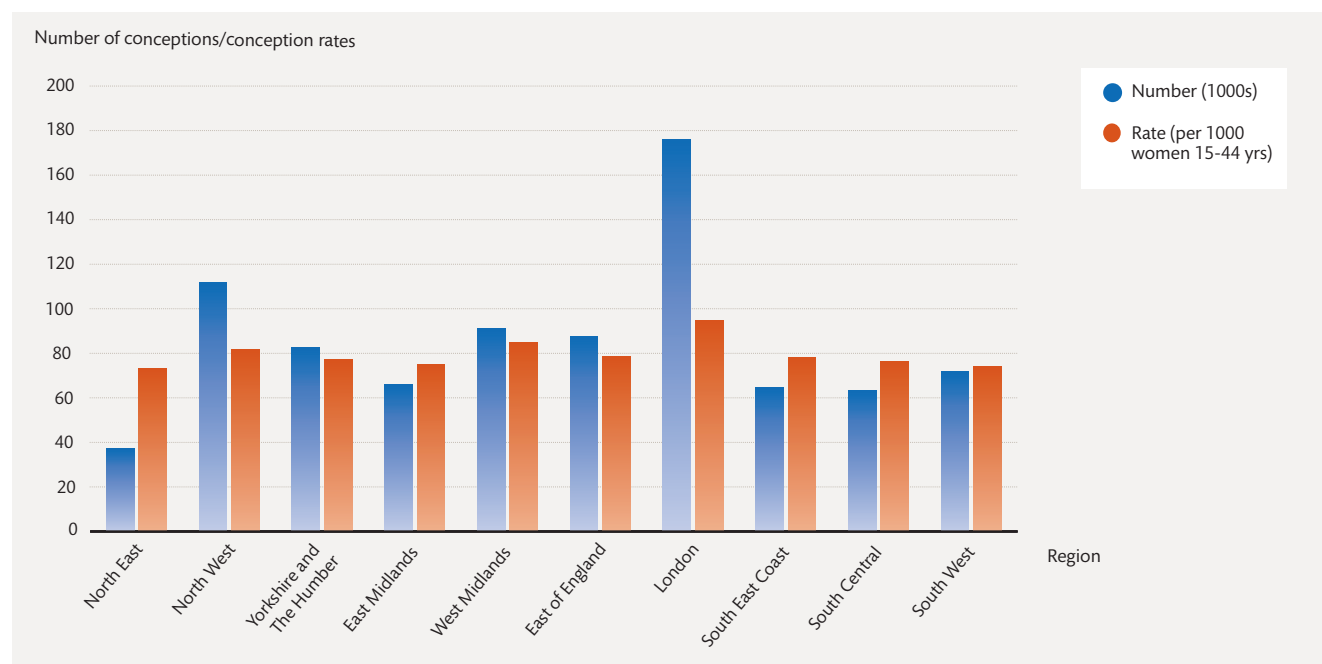


Rates are calculated as the number of conceptions per 1000 women aged 15-44 years in each area (the woman's usual area of residence). London again stands out here; despite taking into account the number of women in the area the rate is the highest in England at 94.7 conceptions per 1000 women aged 15-44 years. The lowest conception rate was found in the North-East region of England at just 73.1 conceptions per 1000 women.



Further information at  
[www.oneplusone.org.uk](http://www.oneplusone.org.uk)

### Chart 3.2 Conceptions (numbers and rates), 2010, by area, England



Data source: ONS 2011



#### Talking point

##### **The 90s Decline**

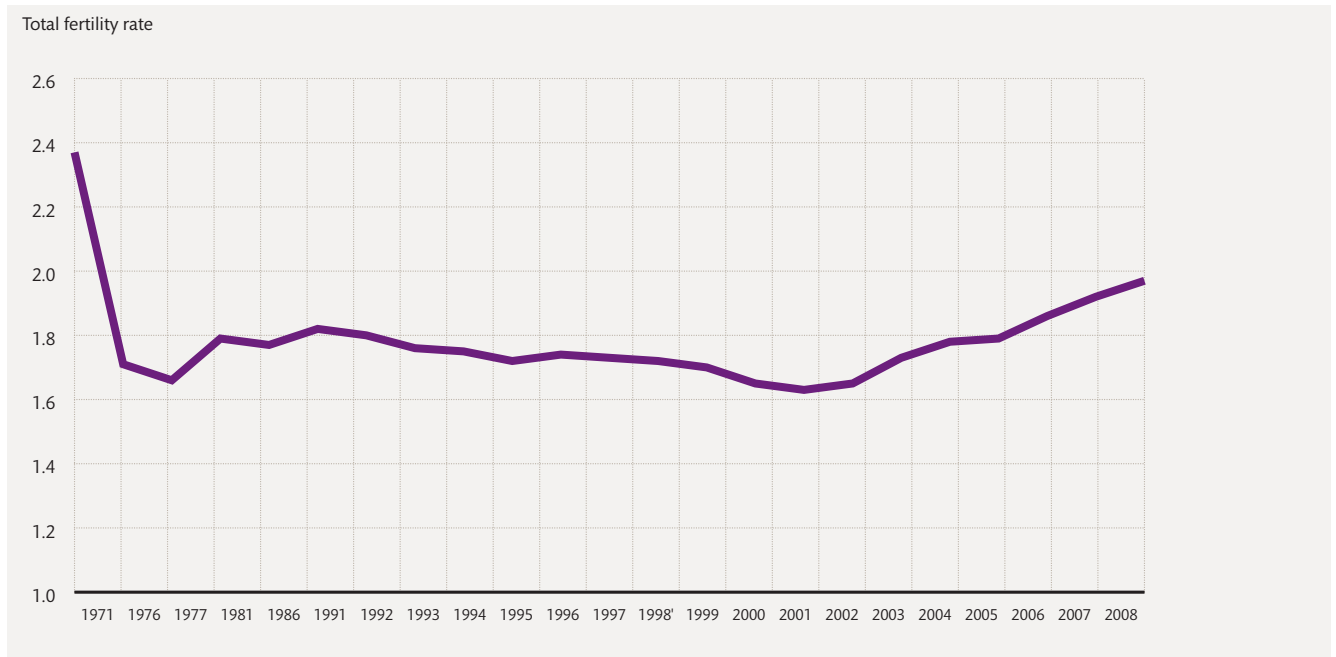
It is difficult to say with certainty what caused the decline in conception rates during the 90s, along with the subsequent recovery the following decade (see **Chart 3.1**). A similar, though less marked slump was seen in total fertility rates (see **Chart 3.3**). Even more intriguing is the fact that a similar pattern was also observed in the US. Possible factors may include increased abstinence (this may have been a factor in the US, though less so in the UK), better use and promotion of contraception, and/or changing attitudes towards starting a family.

Total fertility rates provide a different way of assessing parenthood; these present a more complex (but also more in-depth) perspective by estimating the number of children a woman is likely to give birth to over the course of her lifespan. The fertility rate within a given age range of women is calculated by examining the percentages of women in that age group who gave birth and taking an average of these figures; this is the age-specific rate. The total fertility rate for a country is calculated by combining all age specific fertility rates and estimating the number of children a woman might have over the course of her lifespan.



There was a sharp dip in the total fertility rate in England and Wales in the 1970s. **Chart 3.3** shows trends in total fertility rates between 1971 and 2009 in England and Wales. This may reflect increased availability of contraceptive methods in this period along with high divorce rates during these years. Since the late 1970s there have been relatively minor fluctuations in total fertility rates, though there was a dip culminating in the early 2000s as shown in **Chart 3.1**. At their low point, rates were estimated at just over 1.6 children per women; in 2008 the total fertility rate had recovered to around 2.0 children. This recovery may be due to the increasing availability and effectiveness of in vitro fertilisation (see **Chart 3.10**) and other fertility treatments; it may also be due to the 2004 widening of the European Union, which led to an expansion of the UK's pool of women of a childbearing age. While this change in demographics has been a gradual process, the effects of immigration are wider than population change alone. One possibility is that the expansion of the EU may have led to higher than expected migration levels: while it was initially expected that approximately 13,000 people per year would settle in the UK, peak migration figures in 2010 were around 252,000. Changes in total fertility rates demonstrate a potential long-term effect of immigration: increases in the numbers of fertile young women may affect the average fertility profiles of the women living in the country, and this may have a knock-on effect on demands placed on maternity (and other) services.

**Chart 3.3 Total fertility rate 1971-2008, England & Wales**



Data source: ONS (2009) Population Trends



## Focus on...

### **Attitudes towards sex in the UK**

Two surveys conducted in 2000 looked specifically at attitudes people in the UK have towards sex. These were a specific set of questions in the wider British Social Attitudes (BSA) survey and the National Survey of Sexual Attitudes and Lifestyles (Natsal).

Both the BSA and Natsal examined sex education. Around three quarters of respondents in the BSA thought teenage pregnancies would be reduced by parents talking more about sex, relationships and contraception. Results from Natsal indicated that 66% of participants had never discussed sex with either of their parents. Less than a quarter of BSA respondents believed that sex education at school encouraged earlier sex. Natsal respondents were also asked to identify the primary source of their own sexual education; the most-mentioned were friends (32%) and school lessons (25%). After these two sources, mothers and first sexual partners were the most common at 11% each.

Natsal also asked more diverse questions about sex. Just under a quarter of respondents agreed that sex was the most important part of marriage, but around a half disagreed (with the remainder unsure). Although 41% thought unfaithfulness in a relationship was always wrong, a further 35% judged that it was mostly wrong, and a further 17% judged it sometimes wrong. The small remaining number of respondents did not have a negative opinion of unfaithfulness. Opinions were even more split over the question of 'one night stands'; For instance, 28% felt that one night stands were always wrong whereas 18% said they felt that one night stands were not wrong at all.

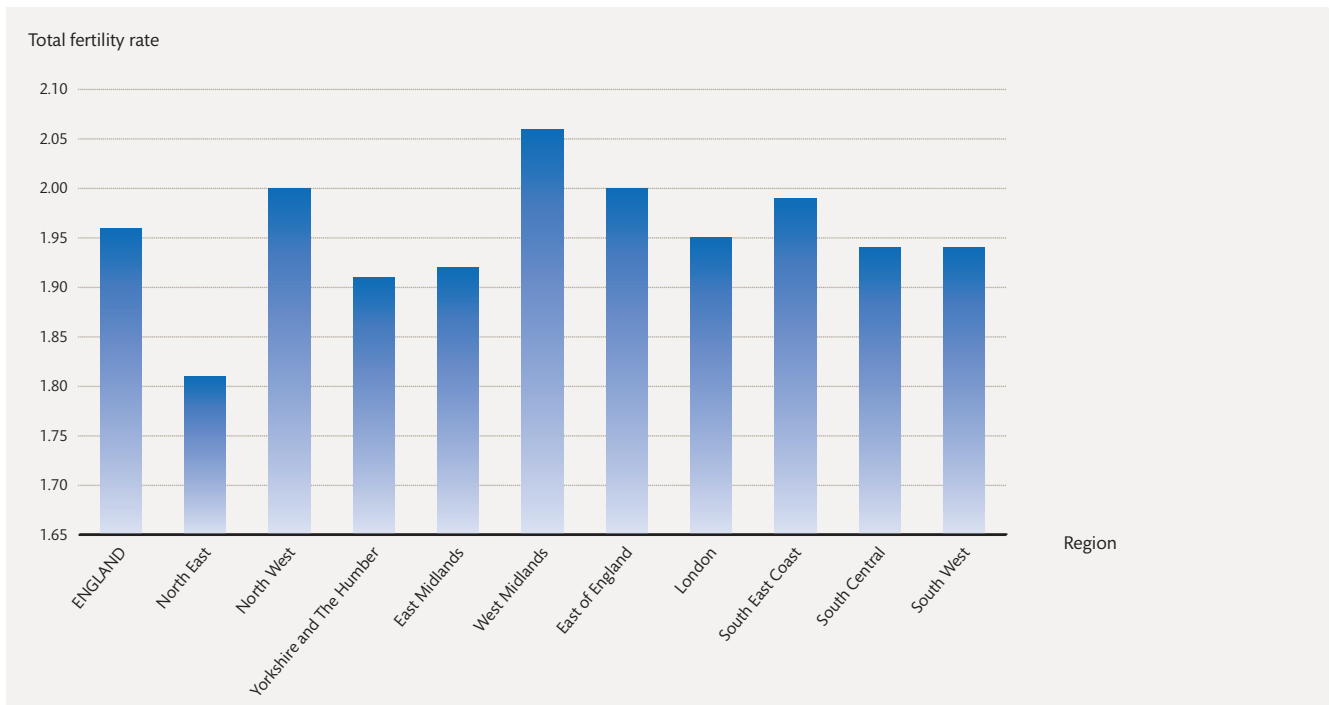
Questions on sexual health and contraception were also a focus in Natsal. Just under half of people used condoms during their first sexual intercourse. 17% used the oral contraceptive pill. This group of respondents would have been female (male contraceptive pills are not currently commercially available although several are in research and development). Around a quarter did not use any form of contraception the first time they had sex, and 6% used unreliable methods such as withdrawal and safe period. Furthermore, only 15% of respondents reported ever having attended a sexually-transmitted infection clinic. General sexual health screening is currently only recommended to individuals who believe that they may be at risk of infection. (This may not always be the case. More recently all sexually active individuals under 25 have been recommended to undergo screening for chlamydia.)

A third round of data collection for Natsal is currently underway. Results are to be published in 2013. 15,000 people from England, Scotland and Wales are being invited to participate, and like the 2000 study, it provides participants with the opportunity to provide information confidentially (even during interviews) using computerised questionnaires.

There are also geographical variations by total fertility rate in the UK. These do not necessarily mirror those shown in terms of conception rates. Accordingly, **Chart 3.4** shows the total fertility rate in 2009 split by English region. There is a marked contrast between total fertility rates and birth and conception rates (see **Chart 3.1**) in some regions. Birth and conception rates were highest in London, and the highest total fertility rate in 2009 was to be found in the West Midlands region at 2.06 children. The lowest total fertility rate was found in the North East region at 1.81 children. The total fertility rate for the whole of England was 1.96 children per woman.



Reminder to check for latest updates on data

**Chart 3.4** Total fertility rate, 2009, by English region

Data source: ONS 2010 Birth summary tables England and Wales 2009



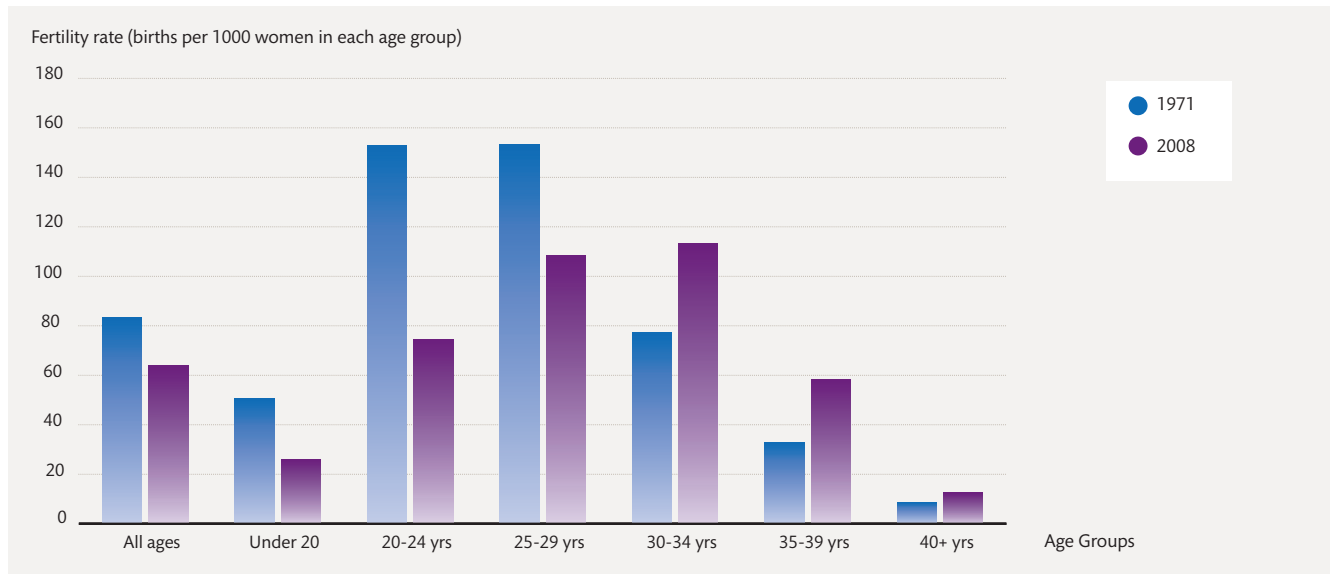
## Focus on...

### **Total and age specific fertility rates**

Differences between total and age-specific fertility rates may occur for a number of reasons. Age-specific rates are derived from counts of births or conceptions, and are grouped by the ages of the women giving birth.

Total fertility rate is, however, an estimated rather than observed figure, and is the number of children that would have been born to a woman if current patterns of fertility persisted throughout her childbearing years. Total fertility rates are not therefore based on real longitudinal data; instead, they are based on the lifespans of hypothetical or imaginary women. They look at the recorded numbers of women having children within certain age brackets, and these are used to calculate age-specific fertility rates. These are then used to estimate how these would impact upon the childbearing of one imaginary woman if she passed through each of these age brackets. Total fertility rate is a particularly important statistic for policy makers because it is useful in determining long term population change; it tells us how many children women are likely to have over the course of their lives. However, total fertility rates are also influenced by immigration; an influx of young women into the country may increase the estimated number of births that will occur over that generation.

Fertility rates broken down by age are the statistics from which the total fertility rate is estimated, and these have changed a great deal between 1971 and 2008. **Chart 3.5** shows a comparison of fertility rates in 1971 and 2008 by age of women. As with previous statistics shown for England and Wales, the data are for women aged 15-44 years (childbearing age). The rates are calculated per 1000 women in each age group. 'Under 20' refers to those aged 15-19 years and 'all ages' refers to women aged 15-44 years.

**Chart 3.5 Comparison of age specific fertility rates in 1971 & 2008 in England & Wales**

Data source: ONS 2009 Population trends

Looking at the figures for 1971, it can be seen that the highest age-specific fertility rates were for women aged 20-29 years. The fertility rate across 'all ages' in 1971 was 83.5 births per 1000 women aged 15-44 years. In 2008, this rate was lower (63.7 births per 1000 women aged 15-44 years). The highest fertility rates (in 2008) were amongst women aged 30-34 years and in their late 20s. In general, mothers were older in 2008 than in 1971.

## Talking point

### **Age at motherhood**

That mothers are in general older in 2008 than they were in 1971 suggests that people in the UK are delaying parenthood. A number of factors may be driving these changes. Use of contraception has become far more widespread in the last 40 years, and there have been small changes in the age profiles of women who choose to have abortions (see **Chart 3.9**). A consequence of this may be that younger women are less likely to give birth.

Other factors are the increasing number of women in the workforce and increasing access to higher education, perhaps leading to a cultural shift, with women delaying motherhood until later in life. These issues may also be linked with economic factors, however; delayed parenthood may result from caution in times of financial uncertainty. For example, women may prefer to complete their education before becoming parents, or couples may delay starting a family in favour of waiting for greater financial security.

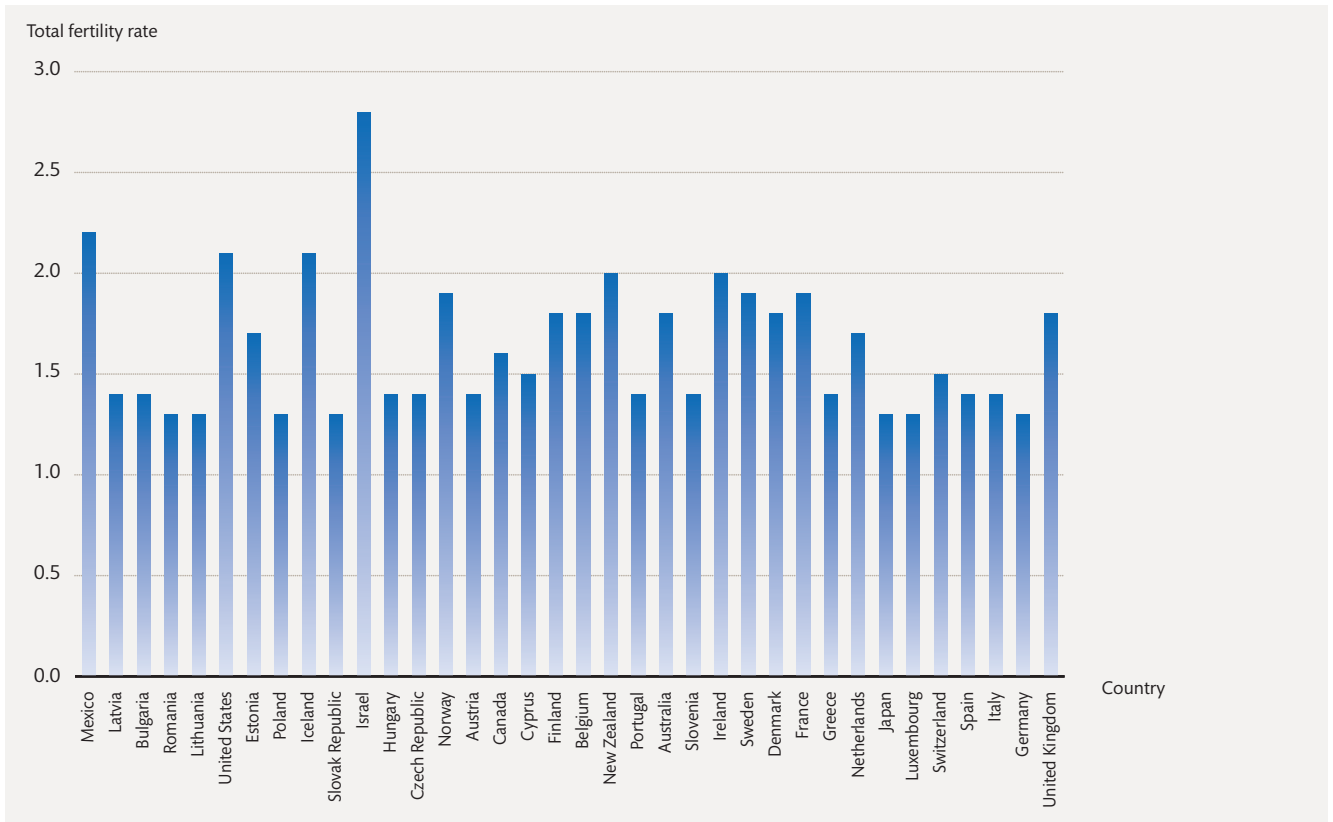
A related point may be the perceived effectiveness of fertility treatment. Women may assume that procedures such as embryo storage or in vitro fertilisation will permit them to have children later in life; however, in practice the success rate of such procedures can be low.

The UK has a high total fertility rate in international comparisons (1.8 children per woman).

**Chart 3.6** shows an International comparison of total fertility rates in 2008. Eastern European countries have some of the lowest total fertility rates of the countries shown (less than 1.5 children per woman). Despite the UK's high fertility rates, it remains slightly lower than that seen in other developed countries around the world, such as New Zealand (2.0 children per woman), Iceland and the United States (both 2.1 children per woman).



Further information at  
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**Chart 3.6** International comparisons of total fertility rate, 2008

Data source: WHO World Health Statistics 2010

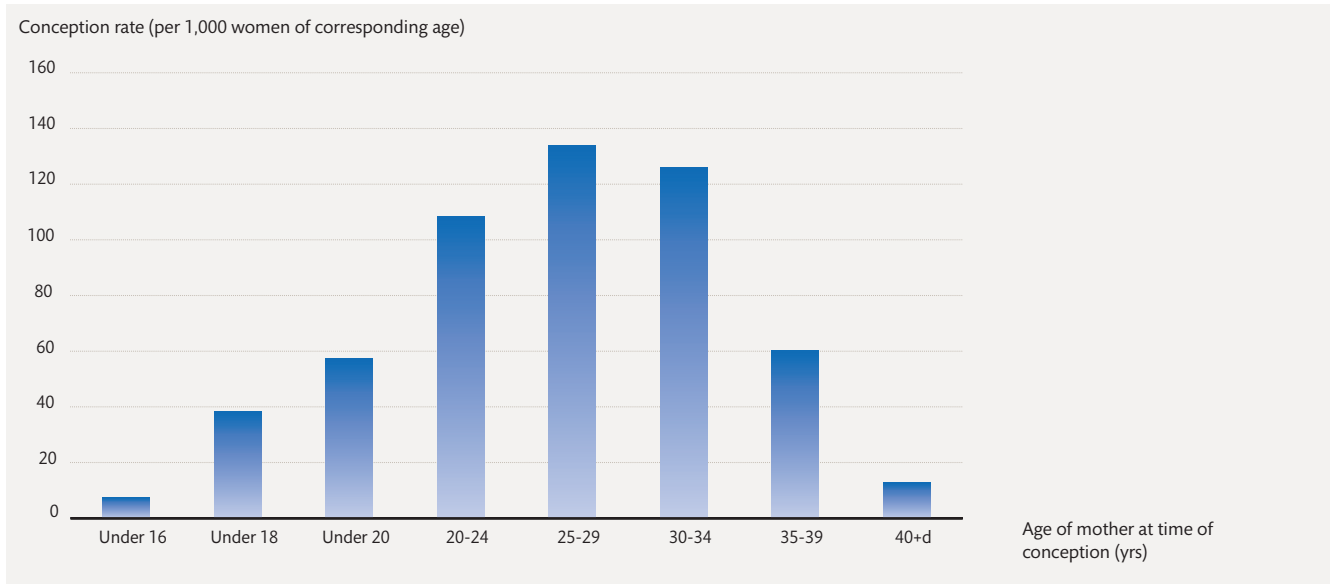
## Parenthood and age

Becoming a parent introduces different challenges at different ages. Statistics show that although most people become parents between the ages of 20 and 35, there are significant numbers who have children at ages above or below this bracket. Having children at too young an age often has negative connotations in the media, and may be presented under the loaded term 'teenage pregnancy.' The social and demographic factors involved in teenage conceptions and abortions are also discussed in this section.

The introduction of more sophisticated reproductive techniques enabling people to have children at an older age has also attracted positive and negative reaction in the media. Though many see In Vitro Fertilisation (IVF) as an acceptable option for couples who have been unable to have children via other means, moves to extend the upper age limits for IVF have been criticised for their cost implications and encouraging false hope. The availability of new reproductive technologies may have also contributed to the rising average age of motherhood. These issues are discussed in context of statistics on the use of IVF.



**Chart 3.7 Conception rates, 2009, by age of mother, England & Wales**

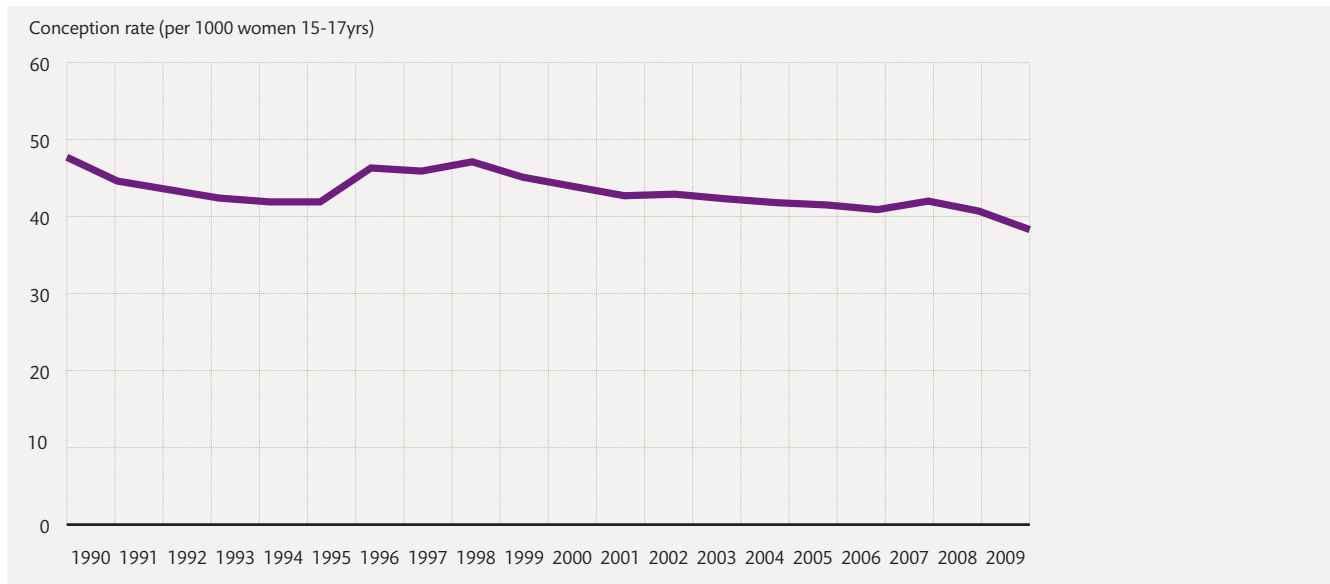


Data source: ONS (2011) Conception statistics 2009.

**Chart 3.7** shows conception rates in 2009 for women broken down by age group of the mother. Conception rates, when split by age, show the highest rates occurring in 25-29 year olds and very low rates in under 16s and over 40s. Whilst there are relatively few women aged 40 years and over who conceive, it is becoming more common in England and Wales. Over 40s are in fact the age group with the most significant increases in the number of conceptions (recorded annually since 1990), followed by women aged 35-39 years (ONS 2011).



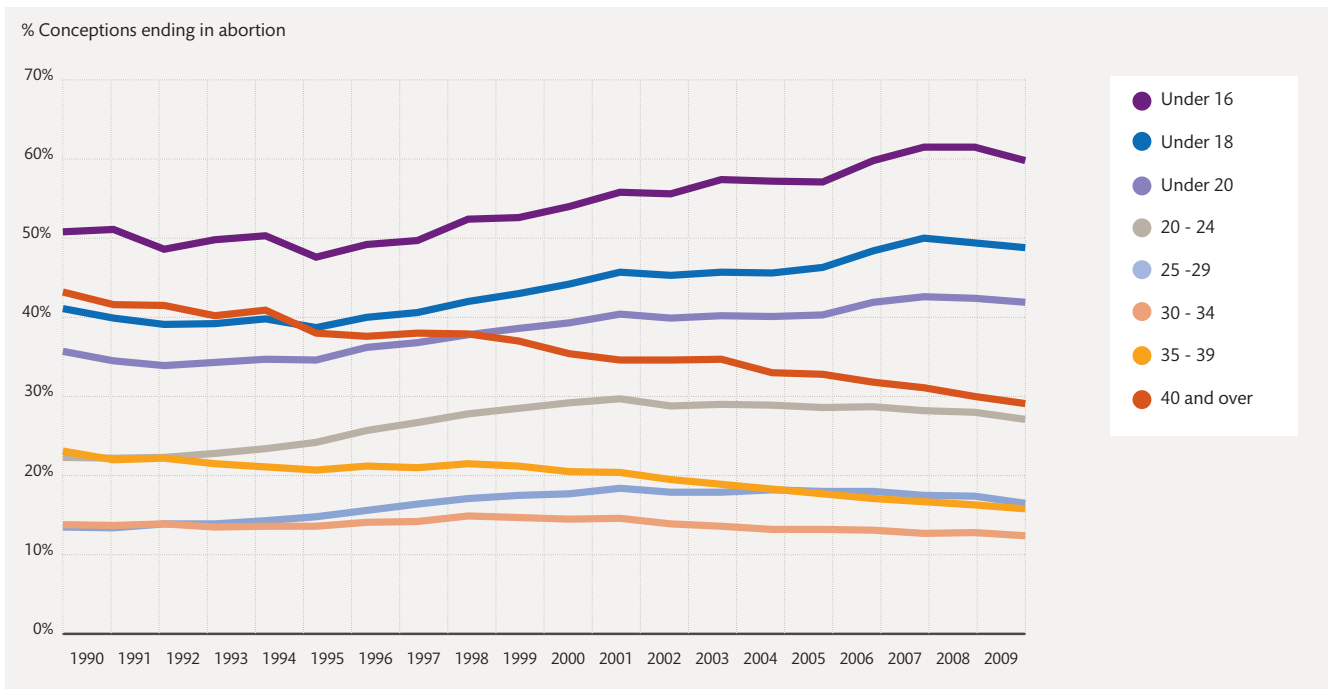
**Chart 3.8 Trends in teenage conception rates, (1990-2009), England & Wales**



Data source: ONS (2011) Conception statistics 2009

Teenage conception rates are often a focal point for the media in the UK. **Chart 3.8** shows trends in teenage conception rates between 1990 and 2009 in England and Wales. The conception rate is calculated as the number of conceptions per 1000 women less than 18 years old (aged 15-17 years). The chart shows that there has been a general decline in teenage conceptions since 1990 when the rate was at its highest for the period shown (47.7 conceptions per 1000 women aged 15-17). In 2009 there were 38.3 conceptions per 1000 women aged 15-17.

**Chart 3.9** Percentage of conceptions ending in abortion, 1990-2009, by age of mother, England & Wales



Data source: : ONS (2011) Conception statistics 2009

**Chart 3.9** looks at trends in abortions between 1990 and 2009 split by the age of the mother. These data only refer to legal abortions in England and Wales.

There have been some changes over time in these statistics; the proportion of conceptions ending in abortion to women less than 16 years of age has increased since 1990 (although there is some evidence of a decline in the last few years). In 2009, 59.8% of conceptions to women aged under 16 were terminated by legal abortion. The proportion of conceptions terminated by abortion for women aged under 18 years and under 20 years overall have also increased over this period. This is likely due to the increase in abortions to women aged under 16 years. There have also been increases in the proportion of conceptions terminated by abortion for women aged 20-24 years and women aged 25-29 years, but these were less pronounced than in younger women.

There has been a decline in the proportion of conceptions ending in abortion for women aged 40 and over. This may mark changing attitudes towards motherhood in later age. As suggested by statistics earlier in this chapter (see the comparisons over fertility rates over time in **Chart 3.5**), many women now become mothers later in life. Similarly, there have been declines in the proportions of abortions for women aged 30-34 years and 35-39 years. The figures for those in their 20s have stabilised in the last decade.



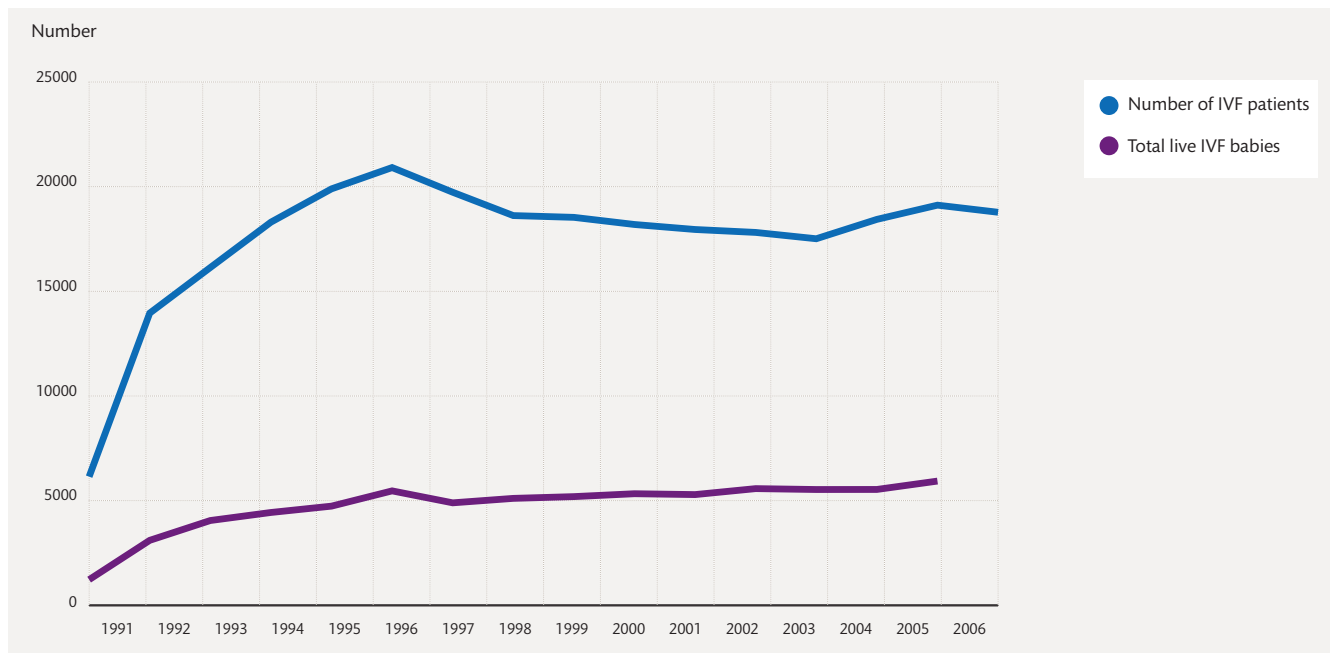
## Focus on...

### Abortion

The figures presented in **Chart 3.9** may initially suggest that abortion is on the increase in England and Wales, with significant increases shown in some trend lines since 1990. However, this is not the case, as the lines shown are proportions of conceptions ending in abortion within each age bracket. Further data from the ONS suggests that overall numbers of abortions taking place in England and Wales have been relatively stable over the last decade: there were 196,109 abortions notified as taking place in England and Wales in 2010 in total, representing an overall abortion rate of 17.5 per 1,000 resident women aged 15-44. This is 6% lower than the rate of 18.6 in 2007.

Two separate social gradients seem to be involved in the issue of teenage pregnancy (Spencer, 2001). Firstly, higher social deprivation is associated with higher rates of live births. Secondly, young women who are more socially 'advantaged' are more likely to use abortion services (Lee et al., 2004). There are no simple explanations for these effects: women of higher social advantage may have better access to and knowledge of these services, or have received more education on sexual health and family planning, leading them to delay their entry into motherhood until later in life.

**Chart 3.10 Trends in IVF patients and live IVF babies 1991-2006, England**



Data source: HFEA (2007) Long-term data 1991-2006

In Vitro Fertilisation (IVF) is now an accepted medical procedure in the UK. Chart 3.10 shows trends in both IVF patients in England and the number of live IVF births between 1991 and 2006. The chart shows those who received treatment in England only and includes both treatments carried out at private and NHS clinics.

The sharp increase in the number of women having IVF treatment in 1991 may reflect the availability of treatment following the introduction of legislation permitting the use of IVF (the Human Fertilisation and Embryology Act 1990). While only 6,146 women in 1991 underwent IVF treatment, this leapt to 20,914 women in the space of only five years. Since then the number has declined by a small amount overall to 18,183 in 2006. The gradual increase





## Focus on...

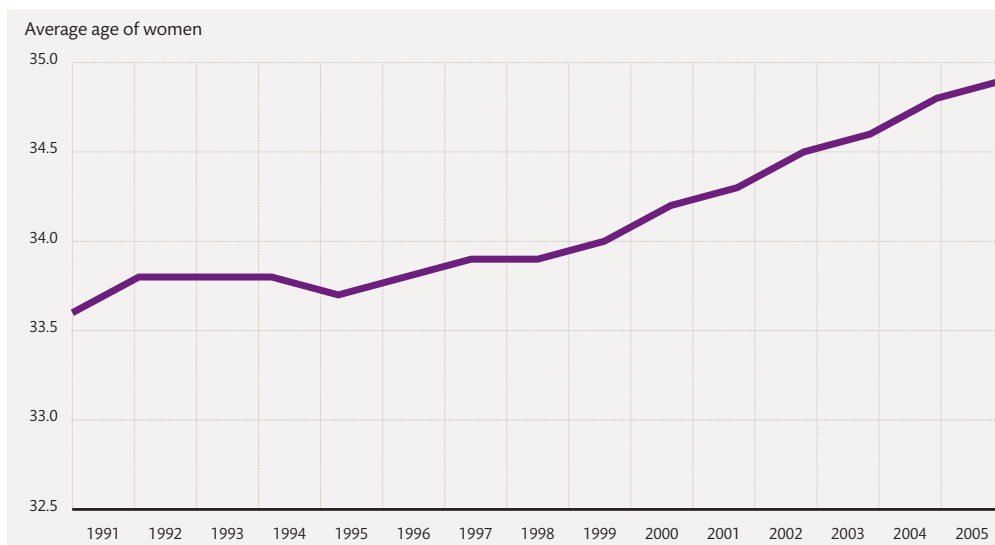
### In Vitro Fertilisation

In Vitro Fertilisation refers to a treatment whereby eggs are removed from the woman and fertilised with sperm in a laboratory before being implanted in the woman's uterus (HFEA 2011). The world's first IVF baby was born in July 1978 at Oldham and District Hospital in Greater Manchester, and the HFEA estimates that around 120,000 babies were born due to IVF between 1978 and 2005. Golombok (2006) suggests that IVF children may have up to five different 'parents': an egg donor, a sperm donor, a surrogate mother who hosts the pregnancy, and the two social parents whom the child knows as 'mum' and 'dad'.

between 2004 and 2006 is likely to be due to the availability of IVF on the NHS. Since 2004 women aged 23 to 39 in England and Wales have been offered up to three cycles of IVF if they have an identified cause of infertility, or who have been infertile for at least three years. (NHS provision of IVF has not been without controversy however; this has been centred on questions over the application of these guidelines and accusations of a 'postcode lottery' in universal provision of treatment across areas in England and Wales.) The small overall decline in the number of women using IVF may not mean that fewer women are using fertility treatments as a whole; indeed, IVF is only one method of treatment.

Since 1991 there has been a gradual increase in the number of live IVF births from 1,226 in 1991 to 5,935 in 2005. This increase between 1991 and 2005, coupled with the reduction in IVF patients, might represent increased efficacy of IVF treatment or increasing multiple births. However, additional figures published by the Human Fertilisation and Embryology Authority (HFEA) show that the multiple IVF live birth rate has in fact declined over this period (HFEA 2007).

**Chart 3.11** Trend in the average age of patients receiving IVF, 1991-2005, England



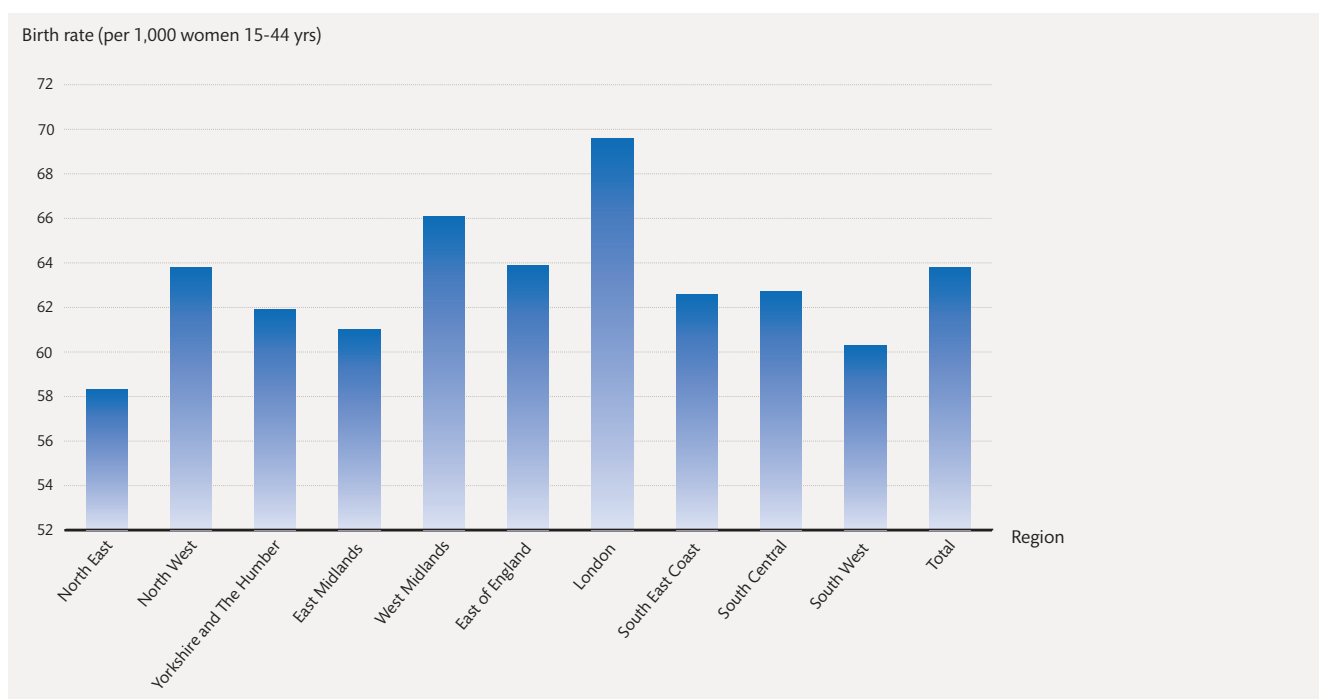
Data source: HFEA (2007) Long-term data 1991-2006

It is also useful to consider who uses IVF in the UK. **Chart 3.11** shows the trend in the average age of patients receiving IVF between 1991 and 2005. Since 1991, and particularly since the mid-1990s, the mean age of women receiving IVF has increased from 33.6 years in 1991 to 34.9 years in 2005. This is likely to represent delayed childbearing in women; see comparisons of fertility rates over time in **Chart 3.5**, and consider again the reasons that have been suggested throughout this chapter, including (but not limited to) cultural change, economic circumstances, and participation in the labour market and education. Age at IVF treatment is known to be correlated with success in that younger women are more likely to be successful in conceiving through IVF treatment than older women (HFEA, 2007). Though the current upper age limit for receiving IVF on the NHS is 39, the National Institute for Health and Clinical Excellence has recently set out proposals for extending the availability of IVF to childless women between the ages of 40 and 42, following evidence suggesting that the procedure can be effective in women of this age group.

## Birth

Birth rates provide slightly different information from conception rates, and are presented as the number of live births occurring to women in every 1000. While conception rates factor in conceptions even if they are not brought to term, birth rates show the numbers of pregnancies which result in live births only. There were 723,913 live births in England and Wales in 2011, increasing by 0.1 per cent from 723,165 in 2010.

**Chart 3.12 Birth rates, 2010, by region in England**



Data source: ONS (2010) Birth statistics 2009

**Chart 3.12** shows birth rates for England broken down by region in 2010. As in previous charts, birth rates are calculated as the number of births per 1000 women aged 15-44 years. The area given is the mother's usual area of residence.

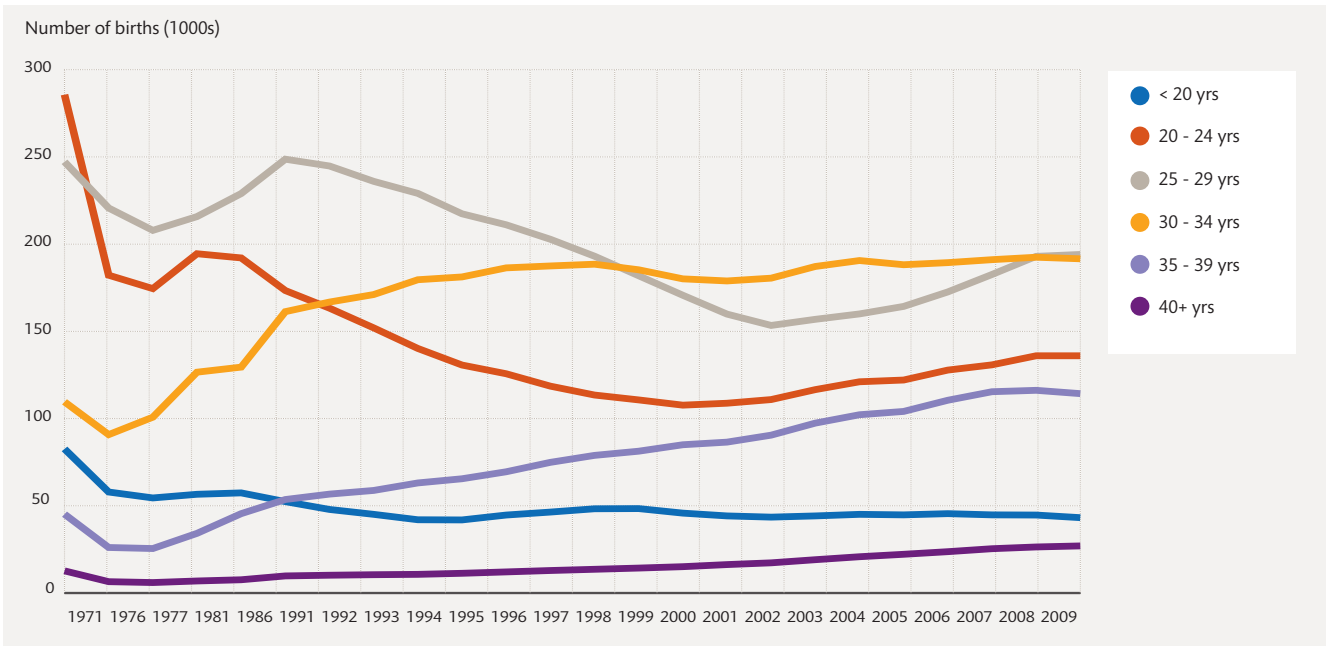
The highest birth rate in England is found in London (around 70 births per 1000 women aged 15-44 years) and this is in line with the high conception rate in this region (see **Chart 3.4**). The lowest birth rate was found in the North East region at 58 births per 1000 women aged 15-44 years. The average birth rate for the whole of England was 64 births per 1000 women aged 15-44 years in 2010.

The number of live births in the UK also varies based on the age of the mother, and there have been some trends over time suggesting that an increasing number of births are to older women. **Chart 3.13** shows trends in the number of live births between 1971 and 2010 by the age of the mother. All women included are those aged 15-44 years. The chart shows that in 1971 women aged 20-24 years experienced the highest number of births (285,700 births). This had rapidly declined by 1976, but rose slightly in the early 1980s before declining again to 137,312 births in 2010. In 2009 this age group were no longer experiencing the greatest number of births. Instead women aged 30-34 years and those aged 25-29 years gave birth to more children (202,457 births to women aged 30-34 years and 199,233 births to women aged 25-29 years).



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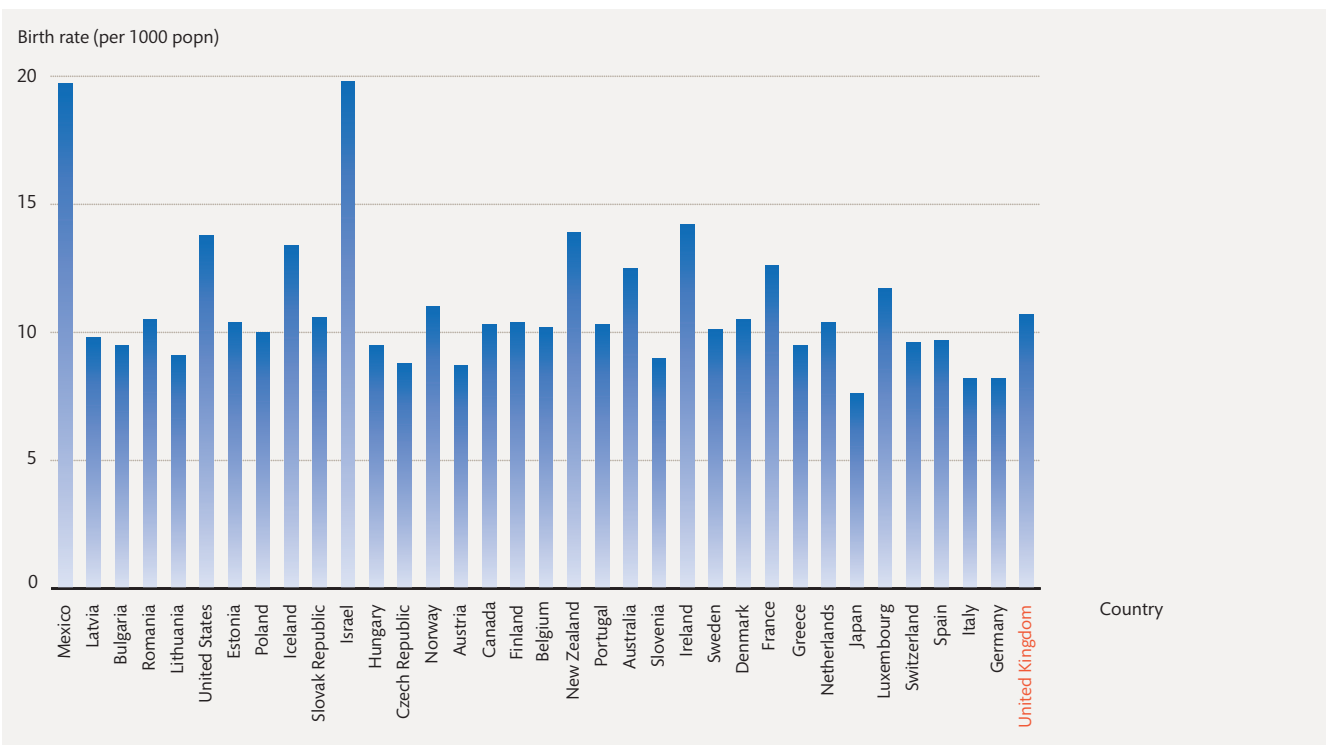
**Chart 3.13 Trends in number of births by age of mother, 1971-2009, England & Wales**



Data source: ONS (2009) Population Trends

There has been an increase in the number of births to women aged 35-39 years and this, in combination with the increase in births to women aged 30-34 years, is in line with the increasing mean age of mothers (as is shown in **Chart 3.15**). In addition there has been a small (but steady) increase in the number of births to women aged 40 years and over, from 12,700 births in 1971 to 25,973 births in 2010

**Chart 3.14 International comparison of birth rates (per 1000), 2009**



Data source: CIA (2009) CIA World Factbook

**Chart 3.14** shows an international comparison of birth rates in 2009. These birth rates are calculated per 1000 population including men, rather than only per 1000 women aged 15–44 years as shown in previous charts for England and Wales. The figure given here is therefore lower than those seen previously; this is largely due to the inclusion of men, but also because women aged 15–44 are on average more fertile than those in the wider population.

There is substantial variation in birth rates around the world. The birth rate in the UK (10.7 births per 1000 population) is one of the highest amongst the European countries shown in the chart, though a great deal lower than Mexico or Israel which average closer to 20 per 1000 population. In fact Mexico and Israel both have markedly higher birth rates than the other countries shown, with the United States, Ireland and New Zealand the next highest. This may reflect religious influences in some countries which encourage people to have larger families, though social and economic factors are also involved. The lowest birth rate shown is for Japan at 7.6 births per 1000 population.

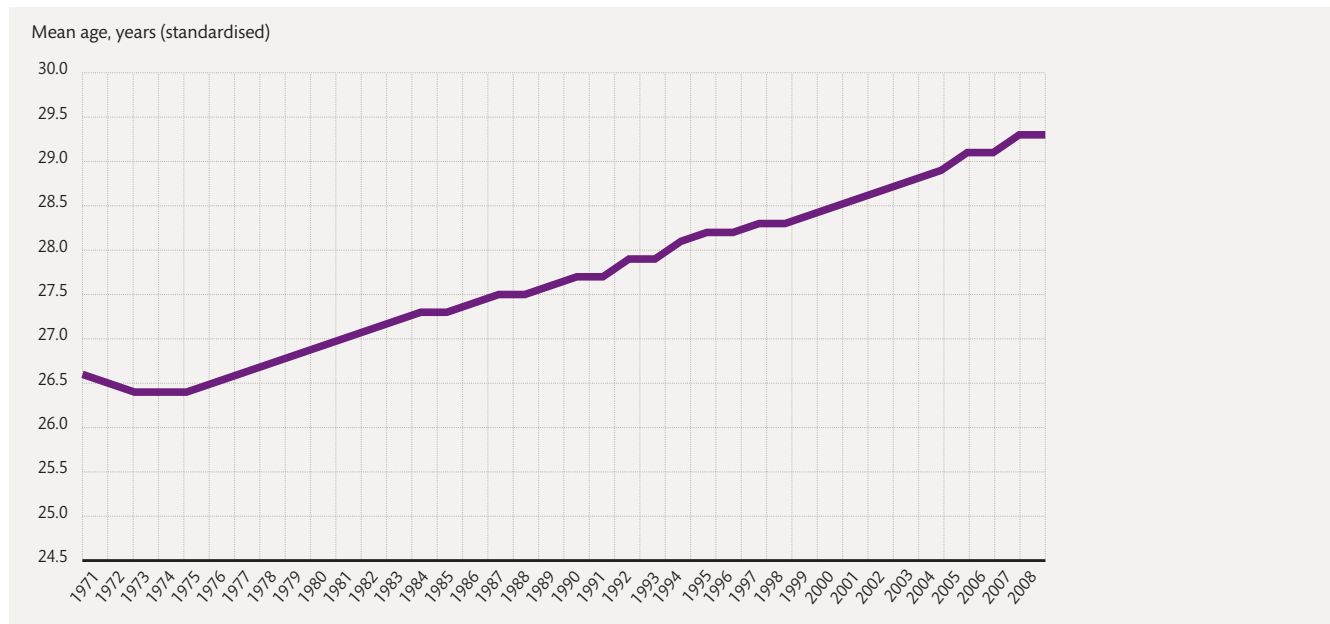


## Focus on...

### **International comparisons of birth rates**

The international comparisons presented in this chapter should be interpreted with caution, as the various countries listed will inevitably differ in terms of abortion legislation and marriage culture. Countries with strong religious views, for example, may be less accepting of abortion and see more cultural promotion of marriage than other less religious countries. Unsanctioned abortions may also be more common in countries where they are not permitted by law, and these will not be reflected in official statistics.

## Chart 3.15 Trend in mean age of mothers 1971–2008, England and Wales



Data source: ONS (2009) Population Trends.

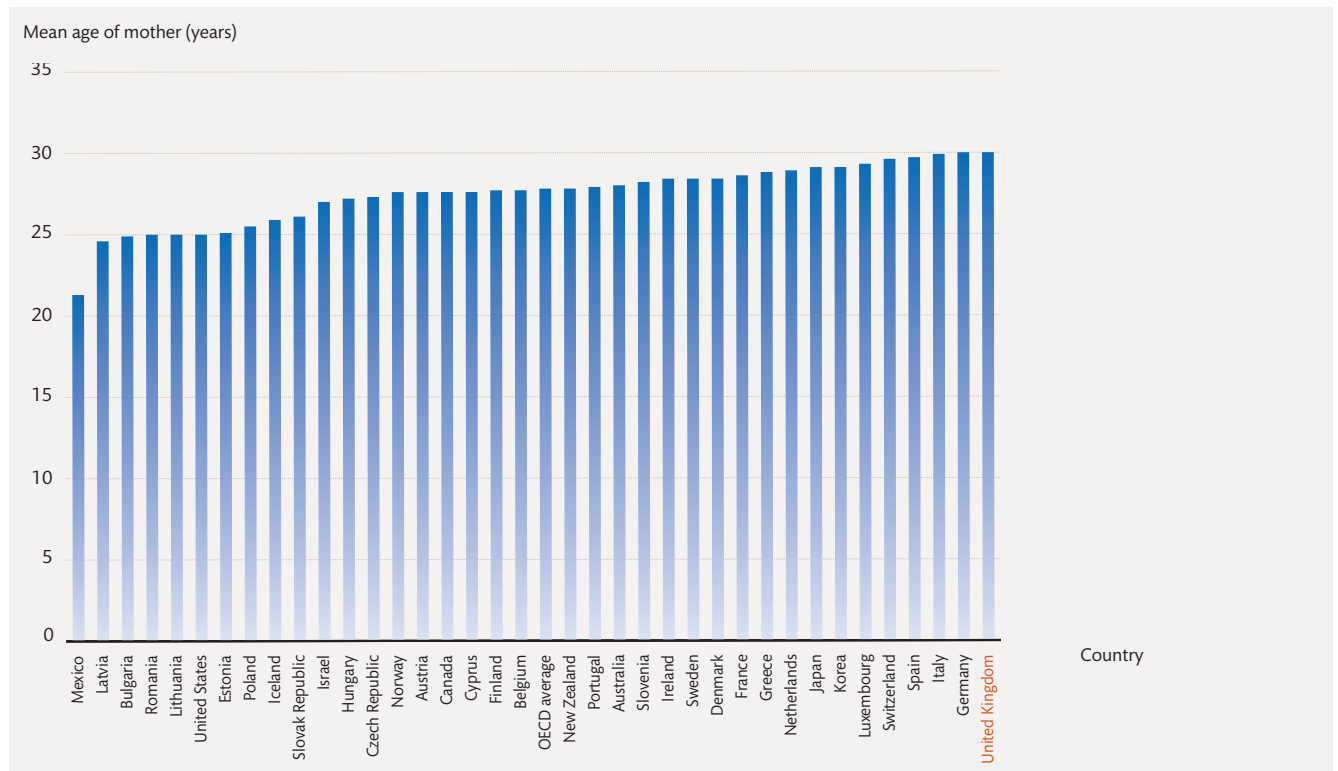
A number of charts in this chapter have suggested that women are giving birth later in life, and this can be assessed directly via data provided by the ONS. **Chart 3.15** shows the trend in the mean age of mothers between 1971 and 2008 in England and Wales. Again, these figures only reflect live births and do not account for births of further children. The means are also adjusted or standardised to take account of the age of the population in each year.



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There has been a substantial increase in the mean age of mothers giving birth over the past 40 years. In 1971 the mean age of mothers in England and Wales was 26.6 years; in 2008 it was 29.3 years.

**Chart 3.16 International comparison of mean age of mother at first birth, 2008**



Data source: OECD (2010) Family Database

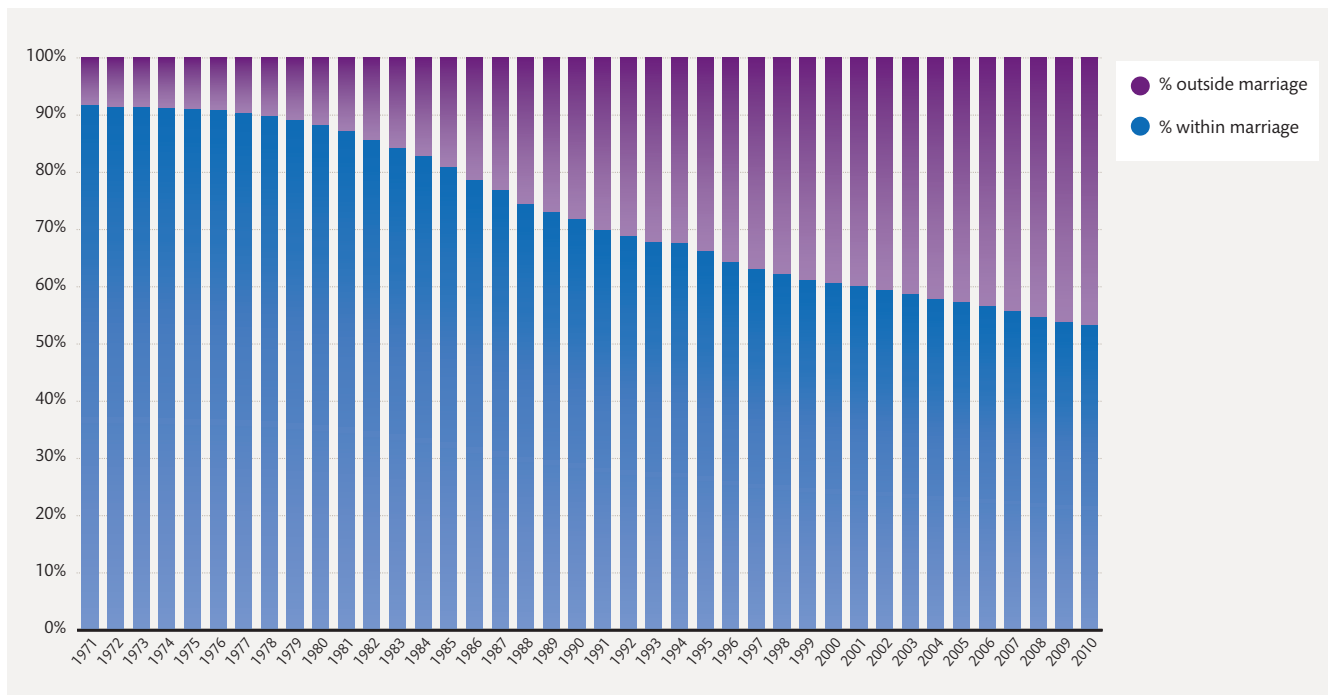
**Chart 3.16** shows an international comparison of the mean age of mothers at the time of giving birth to their first baby in 2008. On average the youngest mothers were found in Mexico with a mean age of 21.3 years. The United Kingdom, on average, has the oldest mothers of the countries shown with the mean age at time of first birth being 30 years in 2008, identical to the mean age of mothers in Germany. This finding links with Charts 3.5 and 3.15 (along with a number of other statistics presented in this chapter) in suggesting that women are increasingly delaying childbearing. It may also reflect the trend towards smaller families suggested in Chapter 2.

**Chart 3.17** shows the trend in the proportion of births occurring within and outside of marriage in England and Wales between 1971 and 2010. Births within marriage refer to births occurring to partners by marriage or civil partnership<sup>1</sup>.

These figures suggest changes in the partnership context in which people have entered parenthood. In 1971, 91.6% of births in England and Wales occurred within marriage. The proportion of births occurring within marriage has declined over the past 40 years, and in 2010 (the latest data available) just over half of all births (53.2%) occurred within marriage or a civil partnership. This trend is linked to others shown in this publication, such as the increasing diversity of family forms characterised by the reduction in marriage (**Charts 1.2 and 1.3**), increase in divorces (**Charts 1.2 and 1.19**) and the large proportion of cohabiting couples in the country (**Chart 1.12**).

1. The Human Fertilisation and Embryology Act 2008 allowed the female-female couples to register the birth of a child from September 2009 and therefore the 2008-2010 include a small number of babies born to female-female couples.

**Chart 3.17** Trend in proportion of births within and outside marriage in 1971-2010, England & Wales



Data source: ONS(2009) Summary of key live birth statistics 1998-2008; ONS (2006) Live births 1838-2004



## Talking point

### **Cohabitation and parenthood**

Additional analysis of the ONS data has shown that of births occurring outside of marriage, most are registered by two parents living at the same address suggesting that many children are born to cohabiting partners (Hunt 2009). Furthermore, evidence from the British Social Attitudes Survey shows that since the 1980s there has been greater acceptance of premarital sex and less support for the idea that people who want children should be married (Hunt 2009).

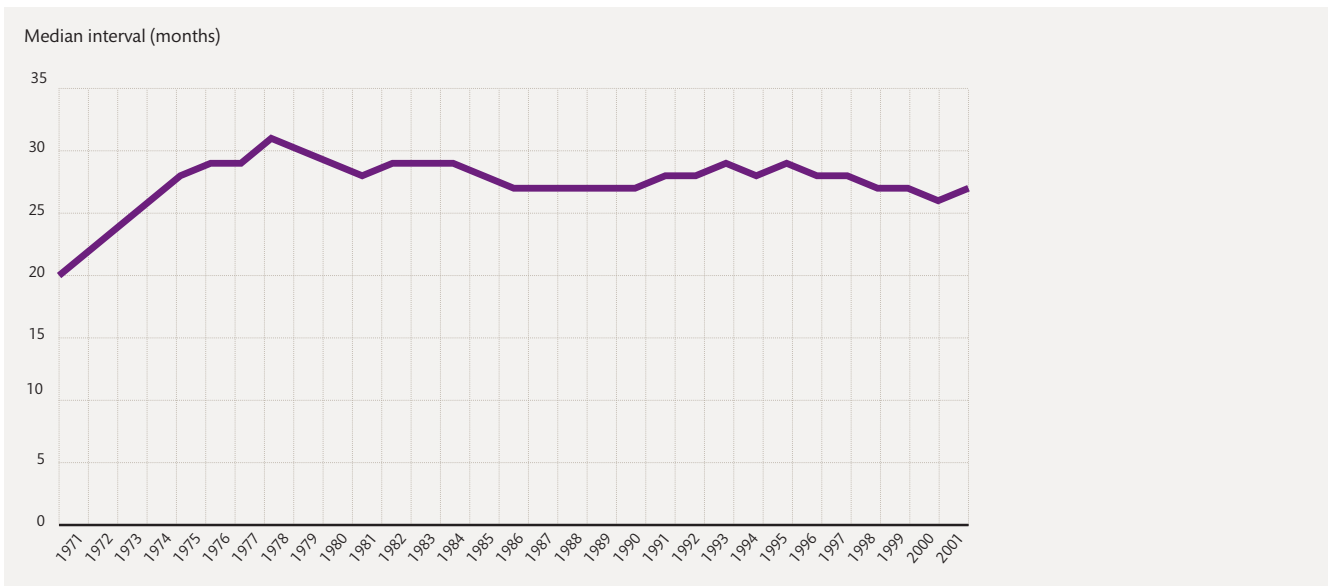
Cohabitations are known to be less stable than marriages (for the various reasons that are outlined in Chapter 1) and consequently the trend shown in **Chart 3.17** may indicate an increasing proportion of children growing up with family instability, and increased likelihood of growing up in a lone-parent or reconstituted family (Haskey 2001). Children who experience family breakdown at a young age will also have a higher chance of experiencing further subsequent changes to family circumstances (including entering into new or reconstituted families, and further potential breakdown). Evidence from the analysis of data from the Millennium Cohort Study suggests that children born to cohabiting couples tend to fare less well with respect to educational achievements and social disadvantage (Kiernan and Smith 2003).

Further to the previous discussions of marital status and childbirth, it is also possible to look at the length of time that people become parents after getting married. The length of time between marriage and birth may depend on a range of factors and decisions by the couple, some of which may be by choice (e.g. deciding to become parents at a later time), others as a result of circumstances (e.g. difficulties in conception, or unstable finances or living arrangements).



Further information at  
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**Chart 3.18** Trend in median interval between marriage and first birth 1971-2001, England & Wales

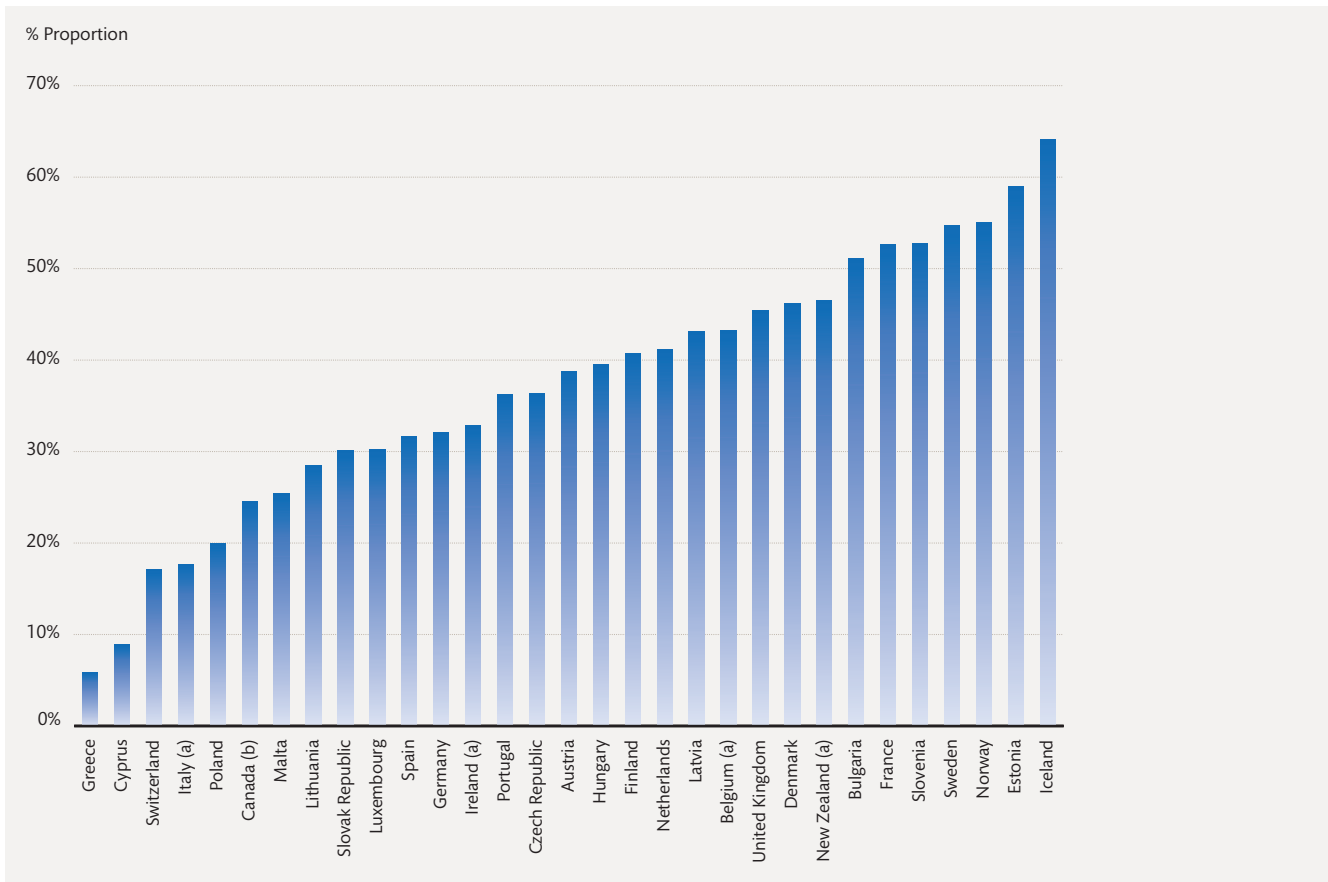


Data source: ONS (2005) Births: 1970-2001

The changes in partnership formation shown in the UK, and discussed in Chapter 1 (the most notable of which have been increases in cohabitation), could be expected to have had repercussions in terms of when couples choose to have children after marrying; for example, it may be expected that as the numbers of couples marrying in the UK decreases, only couples in stronger (and presumably longer-term) relationships would marry, suggesting that intervals between marriage and birth would decrease. However, **Chart 3.18**, in showing the trend in median intervals (meaning the most common period of time elapsed) between marriage and first birth between 1971 and 2001 in England and Wales, suggests that little change has occurred. The time elapsing between marriage and the birth of the first child lengthened during the 1970s from 20 months in 1971 to 31 months in 1978. This trend plateaued during the early 1980s and beyond, with 27 months between marriage and the birth of first child at the most recent point of data collection in 2001. Evidently, that the pool of married couples in the UK is becoming smaller (and presumably increasingly homogenous) does not seem to impact the interval between marriage and birth.



**Chart 3.19** European comparison of the proportion of births occurring outside marriage 2008



Data source: OECD Family Database (2009) ; (a) 2007 data used; (b) 2005 data used

**Chart 3.19** provides an alternative perspective on birth and marriage. It shows the proportion of births occurring outside of marriage within European countries in 2008. In Europe the UK is towards the upper end of the scale with respect to the proportion of births occurring outside of marriage at 45.4% in 2008. Scandinavian countries such as Sweden, Denmark and Norway have higher proportions of births outside of marriage (some particular cultural aspects of Scandinavian countries were outlined in Chapter 1, though it is difficult to assess how much influence culture may have in births taking place outside marriage). Greece and Cyprus have the lowest proportions of births occurring outside of marriage at just 5.9% and 8.9% respectively.



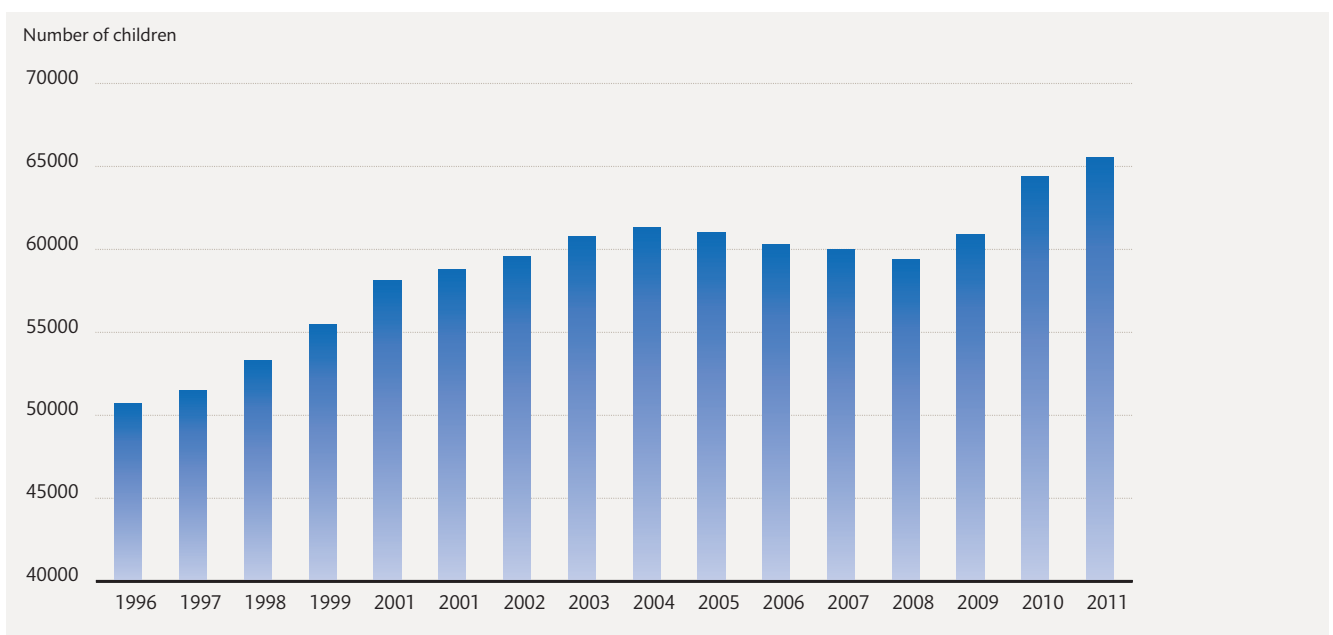
Further research at [www.oneplusone.org.uk](http://www.oneplusone.org.uk)



## Children in care and adoption in England

The UK government's Department for Education and the ONS also provide statistics on children in care and adoptions in England. Children in care, also sometimes referred to as those who are being looked after, are defined as such when their birth parents are unable to provide on-going care in either a permanent or temporary capacity. Children subject to care orders (in line with the Children Act 1989) are voluntarily accommodated, and where possible local authorities will attempt to do this in partnership with parents.

**Chart 3.20** Trends in the number of children in Local Authority care 1996-2011, England



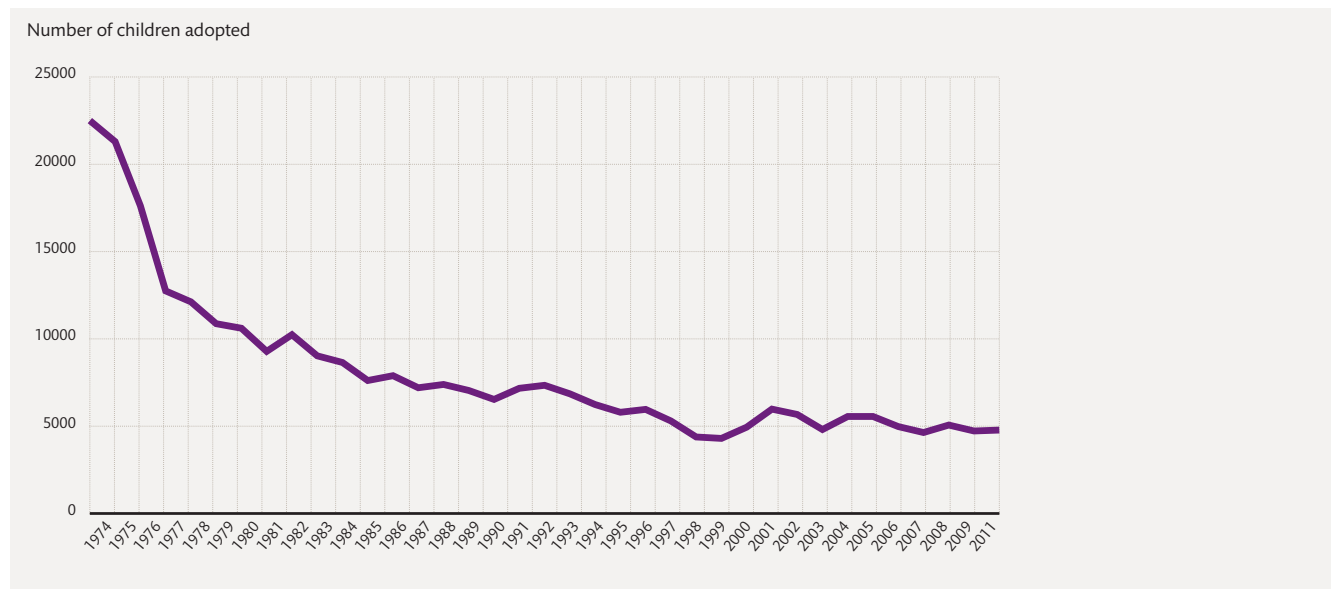
Data source: DfE (2011) Children looked after by local authorities

**Chart 3.20** shows the trend in the number of children in Local Authority care between 1996 and 2011 in England. The figures only show children up to the age of 18 who are looked after in long-term placements. Long-term placements are generally defined as those where children in need cannot return to live with their parents, or extended family, for various reasons, and may occur for periods of two or more years. These arrangements are pre-planned and often take many months to arrange and confirm.

The chart shows an increase in the number of children cared for in this way between 1996 and 2011. In the most recent estimate made in March 2011, 65,520 children were being looked after, representing a 9% increase since 2007. There has been a relative increase in the proportion of boys in care. The majority of children were in care because of abuse or neglect, and in 2010 73% of children in Local Authority care were white (DFE, 2011). Foster care is an important factor in the lives of children who are being looked after by Local Authority care. 74% of all children in this group were in foster care in March 2011.

With such striking increases in the number of children in care since 1996, one might expect that a similar trend would be observed in the number of adoptions taking place in England. This is not the case however.

### Chart 3.21 Numbers of adoptions, 1971-2011, England & Wales



Data source: ONS (2009) Adoption statistics Children defined as those under 18 years of age

**Chart 3.21** shows a decline in the number of children who were adopted between 1974 and 2011 within England. The adoptions are measured by the year in which they were entered into the Adopted Child Register. The chart shows a rapid decline, particularly in the 1970s, in the number of children who were adopted within England. In 1974, 22,502 children were adopted as opposed to 4,777 in 2011.



## Talking point

### **Declining adoption numbers**

There are various possible reasons for declining adoption numbers in the UK, but one factor is potential parents placing greater faith in fertility treatments. Van Der Akker (2005) suggested that fertility treatments were the “first option” for individuals diagnosed with fertility problems, with fostering and adoption shown to be the least popular options in these cases. Edelman (2004), in reviewing available evidence, noted that in a number of studies participants had expressed their desire to retain a biological connection between their child and one of the prospective parents. This lack of a genetic connection between child and parent may explain lower adoption numbers when options are perceived to be available that maintain this link. Another reason may be legislation: see the following talking point for more information.

There has been a reduction in the proportion of adoptions of babies and an increase in the relative proportion of young children aged 1-4 years who are adopted. There has also been a decline in the proportion of adoptions of those aged 5-9 years and those aged 10-14 years. These trends are shown in **Chart 3.22**, where the age of children adopted between 1999 and 2011 in England is displayed as a proportion of the total number of children adopted. The child's age is the age given at the time of the court order. The proportion of those adopted who are 15-17 years has remained relatively constant over the 12-year period shown.

**Chart 3.22 Trends in the age of children adopted 1999-2011, England**



Data source: : ONS (2011) Conception statistics 2009

## Talking point

### **Adopting babies**

The reduction in the number of children being adopted, particularly babies, has been a matter of concern in recent years. A report by the UK Department for Education found that only 60 babies were adopted between March 2010 and March 2011 (DfE, 2011). This is despite the fact that legislation was widened in 2005 to permit adoption by same-sex couples and single persons (or any sexual orientation). It is unlikely that this drop is due to unwillingness to adopt children of this age. Rather, the length of the adoption process, which, in 2011, saw an average time of two years and seven months between commencement and completion of adoption procedures, is a factor. An action plan set out by the Government in March 2012 aims to speed up the adoption processes while making those who run the adoption service more accountable for delays. It will also overhaul the ways in which prospective adopters are checked.

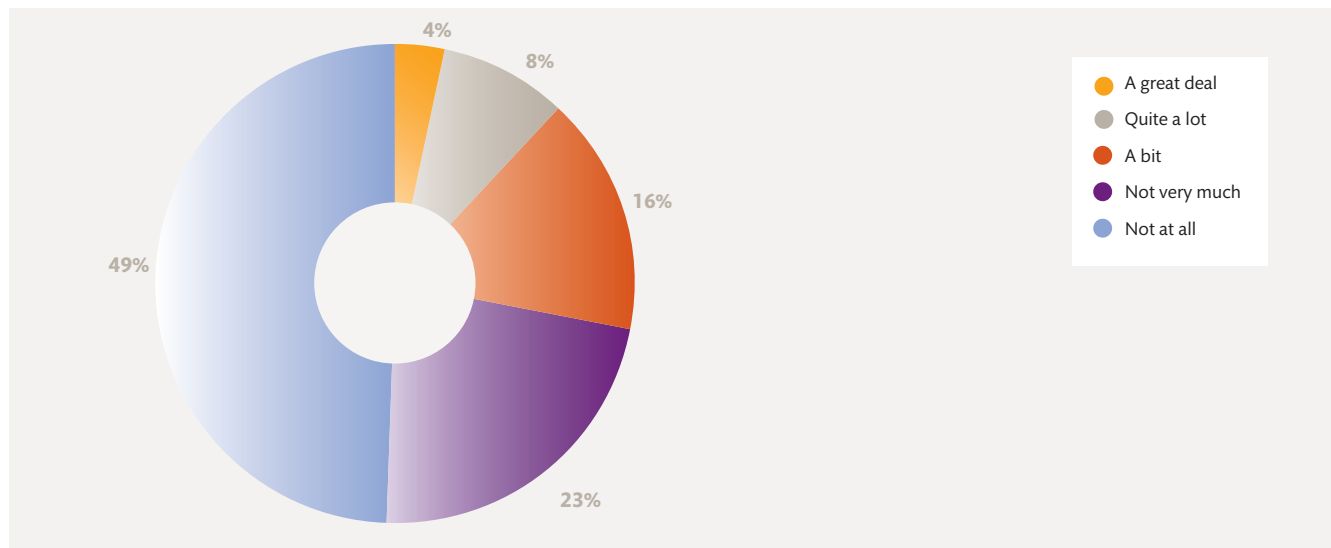
## Juggling parenthood and work

Starting a family can create tensions in relationships. Sources of potential difficulty include maintaining a balance between work, family and childcare. This is due to a number of challenges: the desire to spend time with a new baby; increased household costs; the workload that a new baby brings; and potential conflict between partners. Research has long investigated the *transition to parenthood* as a time of potential difficulty, and services that support maintenance of a work-family balance are available in many countries. These vary in how widely they are provided and who uses them. These issues are examined in depth in the following chapter.



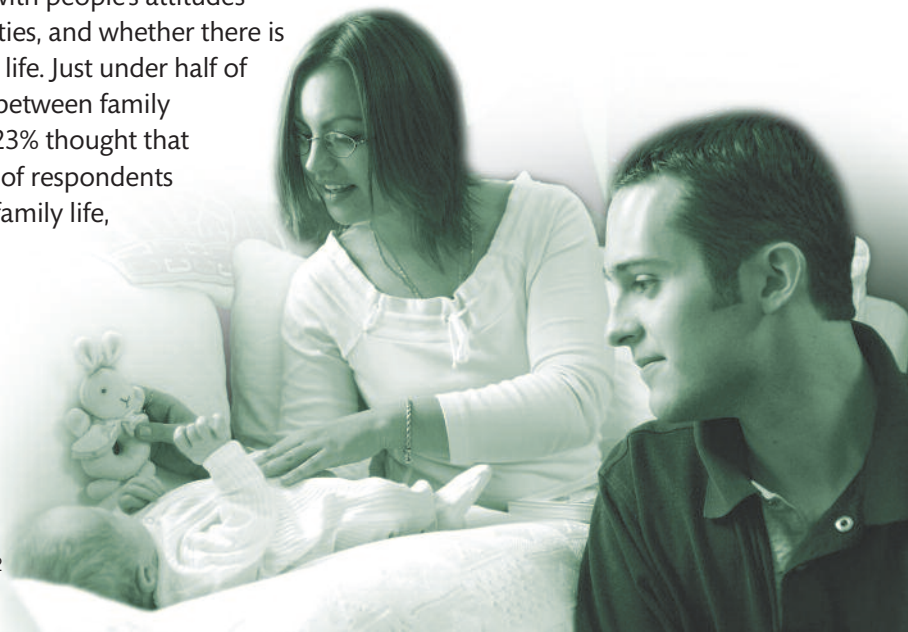
Further research at  
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**Chart 3.23** How much do people feel that family responsibilities interfere with progress at work? British Social Attitudes 2006

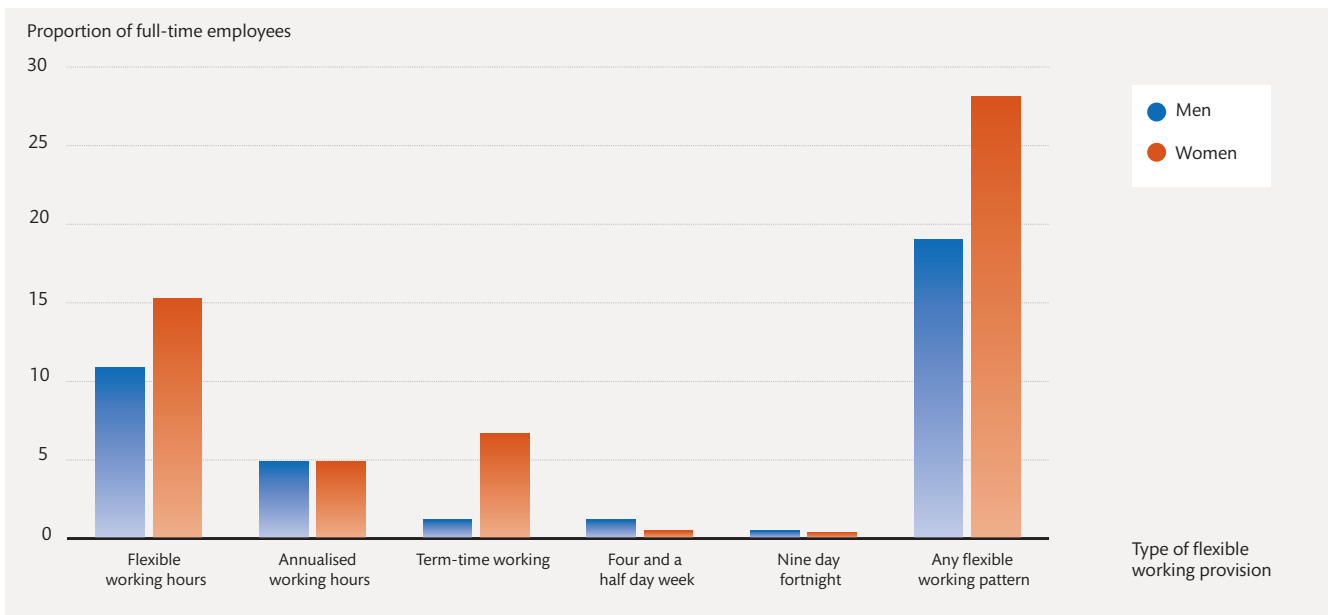


Data source: British Social Attitudes (2006)

**Chart 3.23** shows data collected as part of the British Social Attitudes survey in 2006 conducted by the National Centre for Social Research. This examines changing attitudes towards social, political and economic issues over time (NatCen 2011). The data in the above chart deal with people's attitudes towards work progression and family responsibilities, and whether there is perceived conflict between these two domains of life. Just under half of respondents (49%) felt that there was no conflict between family responsibilities and work progress, and a further 23% thought that there was 'not very much' conflict. However, 28% of respondents reported a perceived conflict between work and family life, to varying degrees.



**Chart 3.24 Provision of flexible working for full-time employees by type and gender 2009**



Data source: ONS (2010) Social Trends 40

Many employers in the UK now offer flexible working options. This supports those juggling family and caring responsibilities with employment. **Chart 3.24** shows the distribution of flexible working provisions amongst men and women. 'Flexible working hours' refers to the ability to start and end the day at variable times in combination with a formal accounting period, such as a month, meaning that employees can roll over any credit or debit hours.



## Talking point

### **Women at work**

One change to work and the family in the UK over the past forty years has been an increase in women's participation in the labour market (OECD 2011; ONS 2010). Women are still seen as the main sources of care for children, however, making it likely that an increasing number of women are experiencing work-family conflict. Added to this are economic concerns; an increased number of women – particularly mothers – in the workplace could also indicate financial instabilities. This is supported by further examination of the data presented in **Chart 3.23**: women were more likely to report their family responsibilities getting in the way of job prospects. 20% of men reported that this was the case to some extent, compared to just over 30% of women. 74% of men reported that was 'not very much' or not at all' the case, compared with only 59% of women.

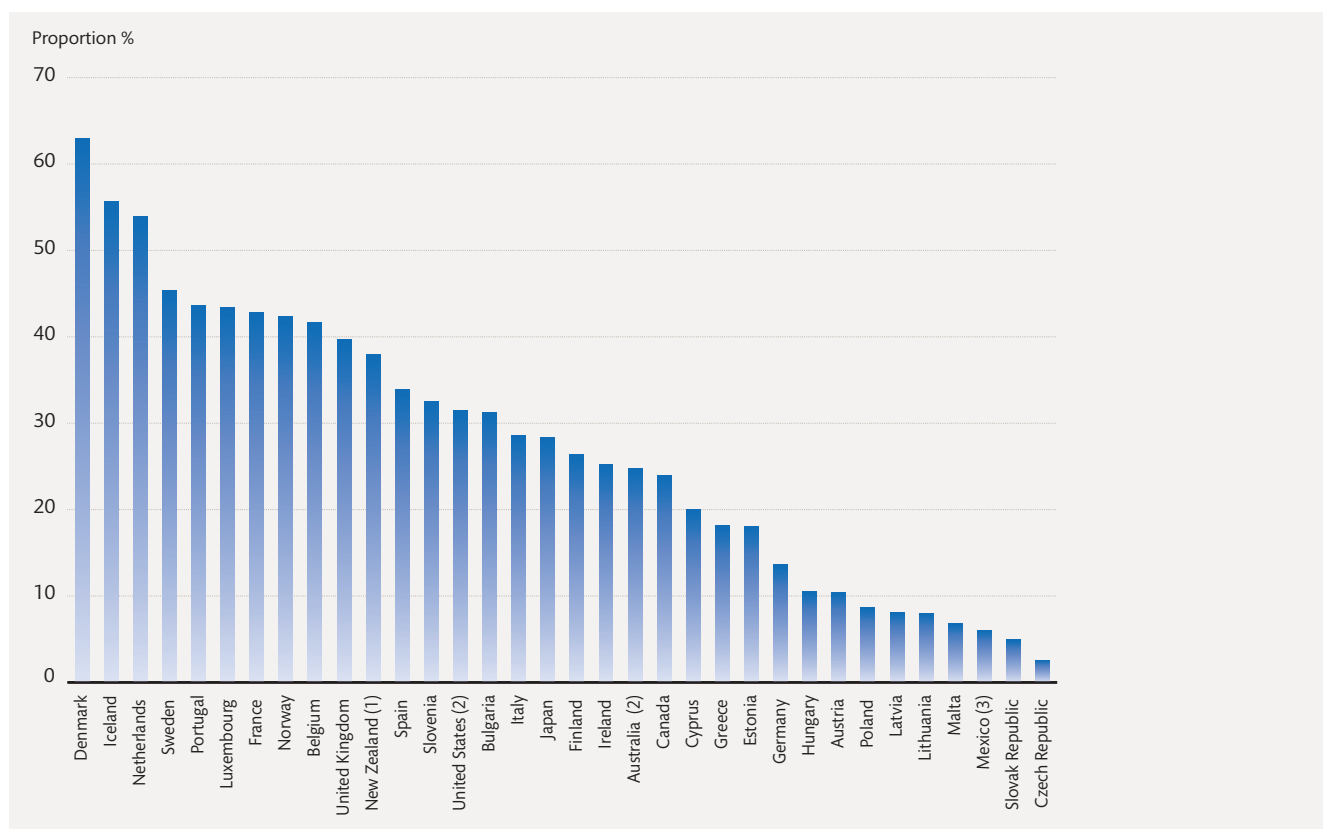
While the proportion of women who are managers has tripled since 1990 (Klett-Davies & Skaliotis 2009), the situation in the home does not appear to have experienced a similar shift towards equality. Wheatley and Wu (2011), examining trends in domestic and career roles often experienced excessive burdens of workload (in some cases up to 113 hours per week). The role of women in the labour market is part of a much wider and more complex picture in terms of parenting, however: this includes gender politics and legislation (including unequal pay and opportunities for women in the workplace, and maternity leave regulations that favour maternal care), provision of childcare services, and, as previously mentioned, economic and financial concerns. Legislation is also changing in some of these areas: there are currently proposals to extend flexible working practices as well as convert a part of maternity leave into shared parental leave.

'Annualised working hours' refers to total hours calculated across a full year in such a scheme. 'Term-time working' refers to employment during only the school year. The right to request flexible working arrangements was introduced in 2003 for working parents with children aged 6 years and under. This was extended in 2009 to include working parents with children up to 16 years of age (Klett-Davies and Skaliotis 2009). 28.1% of women and 19% of men reported that they had some form of flexible working pattern in 2009. 'Flexible working hours' was the most reported form for both men and women. Similar proportions of men and women had 'annualised working hours' at 4.9%. Term-time working arrangements were more common for women than men. Relatively few employees reported a four and a half day week or nine day fortnight arrangements.



Further resources at  
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### Chart 3.25 International comparison of proportion of children (under 3 yrs) in formal childcare 2006



Data source: OECD Family Database (2009); (1) 2008 data; (2) 2005 data; (3) 2009 data

There are significant variations by country in terms of how many people use childcare.

**Chart 3.25** shows an international comparison of the proportion of children under 3 years of age (0-2 years) in formal childcare in 2006; note that the OECD average enrolment rate is 30%. The proportion of infants in formal childcare in the United Kingdom in 2008 was higher than this average at 40%. Scandinavian countries, particularly Denmark and Iceland, had the highest rates of enrolment at 63% and 56% respectively. Eastern European countries, with the exception of Slovenia, had some of the lowest enrolment rates: for example, the rate in the Czech Republic was just 3%.

The childcare use figures for the UK represent use of childcare for younger children only. The UK provides free early years education for three and four year-olds, comprising 15 hours of education for 38 weeks of the year in various settings including nursery schools and classes, children's centres, day nurseries, playgroups and pre-school or with child-minders.



## Talking point

### ***International comparisons of childcare***

Note that in **Chart 3.25** the use of childcare does not map onto the relative wealth (as measured, for example, in terms of gross domestic product) of the country. What more subtle factors might be involved in determining use of childcare? Data from the ONS suggests that people in the UK work longer hours than the European Union average of 41.6 hours per week. The average working week in the UK comprises 42.7 hours, with only Austria and Greece having higher averages (both at 43.1 hours). Interestingly, however, these two countries have very low use of formal childcare. The UK also provides assistance with the costs of childcare via tax credits, depending on the overall cost of childcare (and number of children being cared for) and family income.



## Chapter Summary

Trends in statistics on fertility and parenthood over time reflect cultural, technological and demographic changes. Conception rates in the UK have recovered and stabilised following a dip around the turn of the century, and the highest conception and birth rates within the UK were in London. Differences between conception, birth rates and the total fertility rate have also been considered. It was noted that the UK has one of the highest total fertility rates in Europe. Of the various findings shown throughout, one of the most prominent was that mothers in the UK have been, on average, having children at an older age. This may be due to financial concerns, cultural change and advances in reproductive technology. The number of abortions taking place in the UK continues to rise, but much less so than in previous years. There has also been a rise in the number of children in Local Authority care, with these numbers showing a sharp rise in the last two years. Attitudes to sex in the UK have been considered, though it was noted that the last extensive study of sexual attitudes in this country was just under a decade ago, with new data due for release in the next year.

Chapter 4 will attempt to look at the more subtle factors and changes that occur within relationships.

**“ Conception rates  
in the UK have recovered  
and stabilised ”**



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# Notes

# Understanding 21st Century Relationships

## A Compendium of Key Data

Sex, Fertility and Parenthood is the third chapter of **Understanding 21st Century Relationships: A Compendium of Key Data**.

Chapter one examines statistics on relationship formation and dissolution in the UK. Chapter two examines household composition and families in the UK, and related population statistics. Finally, Chapter four examines relationship quality, and those factors which make some relationships endure while others fail.

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