Childbearing by Registration Status in England and Wales, Using Birth Registration Data for 2012 and 2013

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Abstract

This article examines the characteristics of birth registrations occurring in England and Wales between 28th May 2012 and 31st October 2013. This period corresponds to the availability of new information on previous children and previous marriages for all women registering births, where previously this had only been available for married women. This article also presents comparisons between births registered by same sex female couples with other registrations.

Introduction

The principal variables used for this investigation relate to whether a woman has been previously or ever married, and how many children she has previously had which allows us to identify first time mothers and mothers who have already had at least one child. These variables are the ones improved by changes to the Population Statistics Act that came into force on 28th May 2012.

Investigation of the quality of these new data that expand the coverage of aspects of the registration data is ongoing at ONS. Some unexpected results have been identified in the proportion of women reporting a previous birth, which is thought to affect all ages, and all registration groups. Further information on this can be found in a companion paper published today (The paper can be found on our methodology page). Given the unexpected size of the difference between the new data and old data on previous children, this paper represents our current findings and the results of exploratory analysis, and should not be used for purposes that require precise figures. However this paper does provide the first detailed breakdown of age of mother at first birth by registration types and also the first insight into registrations made by same sex couples under Human Fertilisation and Embryology Act 2008 (HFEA).

There were just over 1 million live births (1.02 million) occurring between 28th May 2012 and 31st October 2013. Therefore these data provide the scope for examination of some relatively rare groups.

Table 1 gives overall figures and defines some of the terms used in this paper for clarity. Because this paper is concerned with births rather than the life course of women, it is important to understand...
what can and can’t be inferred from the data. The analysis looks at point in time data, for births registered in a specific time period, and the status of the women registering those births at that time. Throughout this paper it is important to remember that the registration groups apply only to the status of the woman at the time of the birth, and will be fluid over a woman’s lifetime. For example it should be assumed that where women are described as “cohabiting”, this is synonymous with “cohabiting at the time of the baby’s birth”. For the sake of simplicity, short labels are used to describe the different groups, but the information in table 1 should be used to aid understanding of each group.

Table 1 - Description and distribution of registration types

<table>
<thead>
<tr>
<th>Label for analysis</th>
<th>Marital births</th>
<th>Cohabiting births</th>
<th>Non-cohabiting births</th>
<th>Lone births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation of group</td>
<td>Births to women who are married or in a civil partnership at the time of birth registration. Throughout this paper “married” is used to mean “married or in a civil partnership” except where specifically stated otherwise.</td>
<td>Births registered by a couple who are currently living at the same address, but who are not currently married or civil partnered.</td>
<td>Births registered by a couple who give different addresses, so do not live together. No information is available on what the actual partnership status of these couples is, but both parents are registered.</td>
<td>Births to women who register the birth as a sole registration. No information on the father is recorded, and we assume these are lone parents at registration.</td>
</tr>
<tr>
<td>Number of births in group (28 May 2012 - 31 October 2013)</td>
<td>538,104 (53%)</td>
<td>319,193 (31%)</td>
<td>107,845 (11%)</td>
<td>58,291 (6%)</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

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How Have Types of Birth Registration Changed Over Time?

Figure 1 gives context by showing the changing pattern of births by registration type in England and Wales over time. In 1986 (the earliest year for which comparable data are available on birth registrations) nearly 80% of births were to married women, but by 2013 this had declined to just over 50%. Here the 2013 figure relates only to births occurring in calendar year 2013, and is given to allow comparison with the 1986 and 2003 figures.
What Proportion of Births are to Previously Married or Remarried Women?

Overall only 6.1% of births were registered by previously married or remarried women. With the new data available to ONS these figures can be broken down to give a more complete picture of birth registrations. Figure 2 shows the births broken down into eight categories. It is immediately clear that births to first time married women made up approximately half of all births in this period, reflecting the traditional majority situation for childbearing. While this group still made up the majority of births, its share has declined substantially over time. It is also clear from these figures that the married group is dominated by women who have not been married before, with births to these women accounting for more than 20 times as many births as to remarried women.
This pattern was repeated for other birth registration groups; women who have been previously married (widows and divorcees) are also the minority among those not currently married. Women who are lone parents when registering a birth are the group most likely to have been previously married, with 8.3% of lone mothers registering a birth having been previously married.

Births registered by previously married women tend to take place at older ages. They are more concentrated in the 35-44 age group, with 51.8% of births to previously married women taking place at this age, compared to only 22.8% for women who have not been previously married.

Notes

1. “Married” and “previously married” are used to encompass “married or in a civil partnership” and “previously married or in a civil partnership” respectively. This is done for the sake of conciseness and readability of the paper. Where civil partnerships are considered separately, this will be clearly noted.

Comparing Registration Status for First Births with Subsequent Births

Overall approximately 34.6% of births between 28th May 2012 and 31st October 2013 were first births. Table 2 shows that nearly half of all first births occurred within marriage, and slightly over a third were to women who were cohabiting. Roughly one in nine first births were registered by women who were not cohabiting, but who provide information on the father, and about one in sixteen were registered by lone mothers.
Proportionally more second and higher order births were registered within marriage than first births, which suggests that some women have their first birth outside marriage but then marry before a second or higher order birth. In contrast, second and higher order births were less likely to be registered to cohabiting couples, so it is likely that most of the difference will be due to women cohabiting at their first birth and being married by their second or higher order birth.

Table 2: Proportion of first / subsequent births in each registration group (May 2012 - October 2013)

<table>
<thead>
<tr>
<th>Proportion of births in each registration group</th>
<th>First Births</th>
<th>Second and higher order births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Births</td>
<td>47.3%</td>
<td>55.8%</td>
</tr>
<tr>
<td>Cohabiting Births</td>
<td>35.2%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Non-cohabiting Births</td>
<td>11.3%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Lone Births</td>
<td>6.3%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Total number of births</td>
<td>385,304</td>
<td>726,870</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

How Does Proportion of First Births Vary by Registration Group?

One of the key differences between registration groups is whether women have previous children, or the birth they are currently registering is their first. Figure 3 shows that this varies substantially by registration type. Nearly half of registrations to women who are cohabiting and to lone mothers (for women who have never been married) are first births. This compares to 1 in 5 for previously married lone mothers and less than 1 in 7 for previously married women who were partnered but not cohabiting.
Figure 3 - % of births that are first births, May 2012 – October 2013

Source: Office for National Statistics

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It is worth noting that there is an age component to these figures. Women’s relationship status will change over time, and it is expected that older women will be more likely to have previous children, or to have been previously married. Table 3 shows the percentage of births that are first births for each of the registration groups, by age.
Table 3 - Proportion of births that are first births by registration group, May 2012 – October 2013

<table>
<thead>
<tr>
<th>Proportion of births that are first births</th>
<th>Marital Births</th>
<th>Cohabiting Births</th>
<th>Non-cohabiting Births</th>
<th>Lone Births</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother not previously married</td>
<td>Mother previously married</td>
<td>Mother never married</td>
<td>Mother ever married</td>
</tr>
<tr>
<td>Under 20</td>
<td>68%</td>
<td>39%</td>
<td>71%</td>
<td>66%</td>
</tr>
<tr>
<td>20-24</td>
<td>47%</td>
<td>40%</td>
<td>50%</td>
<td>35%</td>
</tr>
<tr>
<td>25-29</td>
<td>41%</td>
<td>30%</td>
<td>41%</td>
<td>27%</td>
</tr>
<tr>
<td>30-34</td>
<td>34%</td>
<td>26%</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>35-39</td>
<td>23%</td>
<td>20%</td>
<td>36%</td>
<td>22%</td>
</tr>
<tr>
<td>40-44</td>
<td>21%</td>
<td>17%</td>
<td>34%</td>
<td>19%</td>
</tr>
<tr>
<td>45+</td>
<td>35%</td>
<td>23%</td>
<td>42%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

Table notes:
1. Caution must be taken when interpreting figures for previously married women under age 20 as the number of births in these groups is very small.

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As an example of how to interpret table 3, for women who were aged 35-39, non-cohabiting and had been ever married, only 10% of births were first births, meaning that 90% of the women registering a birth in this group already had at least one other child.

As would be expected the proportion of births that are first births declines with age for virtually all groups, from age 20-24 to age 40-44. The proportion of births that are first births actually increases for all groups for women aged 45 and over, but this age group represents relatively few births (approximately 2,800 in total). The reason for this spike at the end of the series is unclear from the data available, but it is reasonable to assume that Assisted Reproductive Technology (ART) use in older women will play a part in increasing first births at this age.

Table 3 shows that differences in previous children between registration groups hold even when age is taken into account. It is also evident that for all registration types, women who have been previously married are more likely to have had previous children than those who have not been previously married, as fertility rates are higher within marriage than outside marriage.
How Does Mean Age of Mother at Birth Vary by Registration Group?

This section looks at the mean age of childbearing for each registration group, in particular examining any differences. Table 4 shows the mean age (unstandardised\(^1\)) of mothers at the time of the birth. This is also split into mean age for first births, second and subsequent births (where a woman states she has two or more previous children).

Table 4 – Mean age of mother by birth order and registration group, May 2012 - October 2013

<table>
<thead>
<tr>
<th>Mean age of mother (in years) at...</th>
<th>First Birth</th>
<th>Second Birth</th>
<th>Subsequent Births</th>
<th>All Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Births</td>
<td>30.7</td>
<td>32.0</td>
<td>33.1</td>
<td>31.9</td>
</tr>
<tr>
<td>Cohabiting Births</td>
<td>27.3</td>
<td>28.6</td>
<td>30.6</td>
<td>28.5</td>
</tr>
<tr>
<td>Non-cohabiting Births</td>
<td>23.5</td>
<td>26.1</td>
<td>30.1</td>
<td>26.1</td>
</tr>
<tr>
<td>Lone Births</td>
<td>24.3</td>
<td>26.5</td>
<td>30.6</td>
<td>26.8</td>
</tr>
<tr>
<td>All Births</td>
<td>28.3</td>
<td>30.2</td>
<td>32.0</td>
<td>29.9</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics

Download table

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As would be expected the mean age of first birth was lower than for all births. The mean age for second births was similar to the mean age for all births, and the mean age of subsequent births was the highest. The highest mean age of first births was for births registered within marriage, where the mother was on average 30.7. This can be compared to the mean age of first births registered by non-cohabiting women at 23.5, more than seven years younger.

The mean age of births registered by lone women and non-cohabiting women was similar for all numbers of previous children shown here, suggesting that these groups have a similar age pattern. In contrast births registered to cohabiting women tended to be to older women, with mean ages between the relatively high mean ages of mother for marital births, and relatively lower mean ages of mother for lone and non-cohabiting births. The mean age of subsequent births for non-cohabiting women is the same as for cohabiting women, despite the very different mean ages of first and second births for these groups.

As previously noted because women can move between registration groups we cannot calculate (and the data do not imply) an “average time between births” for any specific group. The women registering a second birth in any given group could have had their first birth in another group, as was
suggested by the information in table 2. This means the average ages must be interpreted with care, but still give a good overall picture of the births being registered.

Notes

1. To produce age standardised comparisons would require data on population sizes by registration status. These are not available, and could not be reliably created given the fluid nature of registration groups. This means that the mean ages are unstandardised, and so will be affected by the age distribution of women within each group.

How are Births Distributed Between Ages and Registration Groups?

Figure 4 shows the number of first and subsequent births to each registration group by age. This helps to put the information in Table 4 into context. All groups had more first births than subsequent births under age 20, but for older age groups, there were more subsequent births (with the exception of cohabiting women who had slightly more first births than subsequent in the 20-24 age group).

Looking at the married group, the largest in the data, we can see that first and subsequent births follow the same age pattern, a roughly normal distribution peaking at age 30-34, but there were more than twice as many subsequent births as first for women aged 20-44. This can be compared to the pattern for cohabiting women, where the distributions do not match, as first births tend to be at younger ages than subsequent births. As noted earlier this is likely to be because some women will register their first birth outside marriage, and then register a subsequent birth within marriage, emphasising that the registration groups are fluid.

Births to the youngest women (those aged under 25) are most common among lone mothers and non-cohabiting mothers, with roughly half of the births to these groups being registered by women aged under 25. Around one third of births to cohabiting women took place at ages under 25, and relatively few, only one in every 14, marital births were registered by a woman aged under 25.

Births registered by lone mothers and non cohabiting women were more concentrated in the younger ages, whereas marital births were more concentrated between ages 25 and 39. The largest proportion of births to women aged over 40 was for marital births, with approximately 5% of marital births occurring over this age.
What do we Know About Same Sex Female Parents?

Births to same sex parents are a relatively new occurrence with regards to birth registrations in England and Wales. The Human Fertilisation and Embryology Act 2008 (HFEA) contained provisions enabling two females in a same sex couple to register a birth from 1 September 2009 onwards\(^1\). These births make up a very small proportion of the total births registered in this period, so although we can do some overview analysis, caution must be taken when drawing conclusions from these figures.

Approximately 0.13% of births (around 1,250 births) registered in the period were registered under this Act during the period May 2012 to October 2013. These births were more likely to be within a legal union (70% registered within civil partnership) compared to other births (53% in marriage). The majority of the remainder were registered by a cohabiting couple (25%) with approximately 3% each...
of HFEA births being registered by lone mothers or non-cohabiting mothers. It is likely that this is a result of the more conscious process and intentions that same sex couples go through to have a baby (all registrations under HFEA will by definition have been planned).

Table 5 shows some key statistics that are compared between HFEA and all other registrations.

**Table 5 – HFEA and other registrations compared, May 2012 – October 2013**

<table>
<thead>
<tr>
<th>Measure</th>
<th>HFEA Registrations</th>
<th>All other Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of women married or in a civil partnership</td>
<td>70%</td>
<td>53%</td>
</tr>
<tr>
<td>Average age of mother at births</td>
<td>33.8 years</td>
<td>29.9 years</td>
</tr>
<tr>
<td>Proportion of first / subsequent births</td>
<td>67% first births, 33% subsequent births</td>
<td>38% first births, 62% subsequent births</td>
</tr>
<tr>
<td>Percentage of women previously married or civil partnered</td>
<td>8.4%</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

**Table source:** Office for National Statistics

**Download table**

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Table 5 shows that births registered under HFEA are more likely to be to women who have been previously married or civil partnered, than births to opposite sex couples. The reasons for this are unclear, though it may be related to the older age profile of women registering a birth under the HFEA.

Births registered under HFEA parents are also much more likely to be first births, and the average age of mother is older when compared to other births. This is likely to be a factor of access to fertility treatment (NICE guidelines establish a lower age limit to NHS funded fertility treatment). Individual choices may also play a part, but that is outside the limits of our analysis.

Figure 5 shows the grouped age distribution of the age of mother for HFEA registrations compared with all other registrations. As with partnership status it is likely that the more planned nature of births to same sex couples has an impact here, as there are more births to older women. The HFEA distribution shows much smaller proportions of births to women aged under 30 but larger proportions to women aged over 30. As previously mentioned, the number of births to same sex couples is much smaller than to opposite sex couples so the figures are likely to be more prone to variation.
Figure 5 - Distribution of births by age of mother; HFEA and all other registrations compared, May 2012 – October 2013

Source: Office for National Statistics

Download chart

XLS format
(18 Kb)

Notes

1. The process for two men to register as the parents of a baby is different and is not processed through birth registrations, and so it is not possible to present any information on male same sex parents here.

2. Here 'same sex' is used to denote births registered under HFEA regulations, and opposite sex is all other births.

3. The National Institute of Clinical Excellence (NICE) regulates many aspects of NHS funding and treatment options.
Summary Points

- There were a total of 1.02 million births registered between 28th May 2012, and 31st October 2013, of which 53% were within marriage and 31% were to cohabiting women.
- The majority of births were to women who had not been previously married, with only 6.1% of all births to previously married or remarried women. Lone mothers registering a birth were proportionally most likely to have been previously married (8.3% of lone births were to previously married women).
- About half of all first births took place within marriage (47.3%), and this increased for second and subsequent births (55.8%).
- Births to never married cohabiting women were the most likely to be first births (44% were first births), and those to previously married non cohabiting women were the least likely (14% were first births).
- The mean age of mother at first birth was highest for births registered within marriage (30.7 years) and lowest for births registered by non-cohabiting women (23.5 years).
- Approximately half of all births registered by lone mothers and non-cohabiting mothers were to women aged under 25.
- Births registered to same sex female parents under HFEA regulations showed an older average age of mother (33.8), and were more likely to be in a legal union (70%) than other births.

Conclusions

This paper has looked at the characteristics of births registered between late May 2012 and the end of October 2013, based on their registration group. It is clear that there are substantial differences between births in each registration group, with regard to the age of mother and also the likelihood of a birth being the mother’s first or subsequent birth. Figure 3 showed that the difference in proportion of births that are first can be substantial when different registration groups are compared.

It is also clear that births to first time married women, and women who are cohabiting but have never been married, make up the majority of births, and that births registered in these groups tend to have an older age of mother than births registered by lone mothers or non-cohabiting mothers.

Some insight is also gained into the patterns for women registering births in same sex couples, where 95% were registered to civil partnered or cohabiting women, a much higher proportion in more established couples than for opposite sex couples.

As more data become available valuable insight could be gained by examining the registration groups in more detail. Currently the proportion of first births that take place within marriage is slightly below the proportion of all births that take place in marriage and the proportion of first births that are registered by cohabiting couples is slightly above the proportion of all births registered by cohabiting couples. This could be caused by women having their first birth outside marriage, and then subsequent births within marriage. This would also explain why births outside marriage tend to have a lower age of mother. If this trend continues we could see further differences between the registration groups, and divergence, even if the overall level of births within marriage remained constant.
Substantial differences exist between registration groups for births in 2012 and 2013, and further research is needed as more data becomes available to help understand what we can learn from the new Population Statistics Act data.

**Background notes**

1. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

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