WOMEN'S FERTILITY AND EDUCATIONAL LEVEL IN FRANCE: EVIDENCE FROM THE ANNUAL CENSUS SURVEYS

Emma Davie, Magali Mazuy
Translated by Godfrey Rogers

I.N.E.D | « Population »

2010/3 Vol. 65 | pages 415 - 449

ISSN 0032-4663

This document is the English version of:

Emma Davie, Magali Mazuy« Fécondité et niveau d'études des femmes en France à partir des enquêtes annuelles de recensement », *Population* 2010/3 (Vol. 65), p. 415-449.
DOI 10.3917/popu.1003.0475

Available online at :

---

https://www.cairn-int.info/article-E_POPU_1003_0475--women-s-fertility-and-educational-level.htm

---

How to cite this article :

Emma Davie, Magali Mazuy« Fécondité et niveau d'études des femmes en France à partir des enquêtes annuelles de recensement », *Population* 2010/3 (Vol. 65), p. 415-449.
DOI 10.3917/popu.1003.0475

Emma DAVIE* and Magali MAZUY**

Women's Fertility and Educational Level in France: Evidence from the Annual Census Surveys

At nearly two children per woman (Pla and Beaumel, 2010), fertility in France is among the highest in Europe (Prioux and Mazuy, 2009; Kohler et al., 2002), while the proportion of women remaining permanently childless is relatively small: around 13% in the 1960s birth cohorts (Toulemon et al., 2008; Breton and Prioux, 2009). But these characteristics vary considerably according to women's educational level (Robert-Bobée and Mazuy, 2005; Toulemon and Lapierre-Adamcyk, 2000). Childlessness is far more common among women with the highest qualifications (Köppen et al., 2007), and delayed first childbirth is closely linked to later age at completion of education and a longer interval between union formation and entry into parenthood. The general trend towards later childbirth is bounded by the "reproductive norm" (Bajos and Ferrand, 2006), i.e. the socially defined requirements for having children, such as the "right" age for having a child, the "right" interval between two births, a stable partnership and agreement between the partners. This normative framework surrounding men and women's reproductive choices varies between social groups, with contrasts observed for proportions of childless women, average numbers of children, and age at first birth.

Similarly, experience of migration significantly influences the life cycle of women, reflecting differences in socialization depending on whether their childhood and youth were spent in France or in another country. In addition, the reasons for migration – for family reunion or to pursue education – also affect the life cycle in different ways. The influence of educational level for women born outside metropolitan France (mainland France and Corsica) has received little attention from researchers due to the lack of suitable data. A simultaneous consideration of age, level of education, place of birth and time since arrival in France requires information collected on a large scale. This

* Institut national de la statistique et des études économiques.
** Institut national d'études démographiques.

Correspondence: Magali Mazuy, Institut national d'études démographiques, 133 boulevard Davout, 75980 Paris Cedex 20, tel.: +33 (0)1 56 06 22 51, e-mail: magali.mazuy@ined.fr

Population-E, 65 (3), 2010, 415-450

analysis is now possible using data from the French annual census surveys conducted between 2004 and 2009.

This article analyses recent female fertility trends in France by educational level with a view to observing differences and similarities in behaviour. It also examines the contribution of the French annual census surveys to fertility studies. With these data, we can observe differences between social groups in the way that fertility trends in the years 2000-2010 affected native-born and non native-born[1] women living in metropolitan France.

Since 2004, the formerly exhaustive French census has been conducted by means of annual census surveys (*enquêtes annuelles de recensement*, EAR). One-fifth of municipalities (*communes*) with fewer than 10,000 inhabitants are surveyed each year, so that each commune in this category is surveyed once every five years. In municipalities with more than 10,000 inhabitants, 8% of households are surveyed annually, so that after five years 40% of households have been enumerated. These annual census surveys are conducted at the beginning of each year on around nine million people. Thanks to the use of stratified sampling, they are representative at national and regional levels, though not necessarily so at the sub-regional level (*départements*) (Desplanques, 2008). This rolling census is unique to France (Valente, 2010). The annual surveys provide the basis for reliable analysis of fertility trends for the years 2000-2008 using the own-children method. In Sections I and II of this article, the conventional fertility measures (total fertility rate and mean age at childbirth) are estimated from the census surveys for women in general. These are compared with indicators based on vital records and then analysed by educational level. In Sections III and IV, we analyse the contribution of first births to general fertility trends by level of education, and the contributions of native-born and non native-born women, highlighting the limitations of the measurement tools generally available to demographers.

I. Estimates of female fertility from the annual census surveys (EAR) and from vital records

The standard period fertility measures are usually established using statistics of registered births (based on birth notification forms, Appendix 1), and population estimates derived from the census and vital records for the number of women. The births registered in the vital records in a given year are divided by the resident female population of France in that year. The age of mothers at the birth of their children, recorded on the notification form, is used to obtain the number of births by mother's age. The ratio of these births to the number of women at each age gives the age-specific fertility rates, from which are calculated the total fertility rate (TFR) and the mean age at childbirth (details of the calculations are given in Appendix 3).

(1) Native-born women were born in metropolitan France but do not necessarily have French nationality. Non native-born women were born outside metropolitan France, of French or foreign nationality.

Although reliable and widely used by demographers, this method does present a number of disadvantages. First, the numerator and denominator are drawn from different data sources and do not refer to exactly the same events in the same population. For example, when women who live abroad come to France to give birth (non-resident women wishing to give birth in their home town, for example), their children are registered in the vital records although the women themselves are not in the census count. Second, the data from vital records based on birth notification forms cannot be used to analyse social differentials in fertility, since the only information supplied concerns occupation and is uneven in quality. Third, the birth-order information is unreliable due to an overestimation of first births in vital records (see Section III) that leads to overestimation of age at first birth when using this source (Prioux, 2003; Desplanques, 2008). The Family Surveys conducted in conjunction with the population census since 1954 are a rich source of additional information on families. The most recent was in 1999, however, and so is rather out of date (Desplanques, 2005; Lefèvre and Filhon, 2005). The next Family Survey, due for 2011 and the first to be associated with an annual census survey (Rault et al., 2010) will provide more recent data on family structures and fertility. The samples sizes used for surveys on fertility and family structures are too small to permit multiple levels of analysis. Data from the annual census surveys are thus better for analysing social differentials in fertility since the large samples used make it possible to cross a range of variables (age, educational level, place of birth, year of arrival in France, other children present in the household or not).

The "own-children method" in the census

The person who completes the dwelling form in the census (Appendix 2a) indicates the number of people living at the address and his or her relationship with each of them; an individual questionnaire is completed for each person at the address (Appendix 2b). In the own-children method, individual children are matched to their mother in the census datasets (Desplanques, 1994 and 2008; Cicali and De Santis, 2002). Unlike the method using vital records, this source presents the advantage of homogeneity, since the information on children and mothers is collected at exactly the same time. Our attention is limited to very young children, so as to obtain the most accurate picture of fertility immediately prior to the census, based on the situation of the mothers and children living in the same household at the time of the census. In view of the similarity of the results and the stability of the indicators obtained, whether for births in the year before the census survey or in the previous five years, we decided to go back five years before each census survey (see below). Children were matched to their mother in virtually every case. The only children not present in our analysis are those not living in ordinary households or not resident with their mother (Box 1), but the proportion concerned is very small since almost all children live with their mother during infancy.

Box 1. The mother-child relationship in the census

Under the census definition, a family comprises a minimum of two persons: either a couple plus their child(ren) if any, or a parent with his or her child(ren). A family is part of a household, and the same household may contain several families. The total of potential mothers is obtained from the "adult female of a family" category of the variable describing the family tie. The children to be matched to their mother are characterized by the "child of a family" category of the same variable. Children not in a family are excluded since they cannot be matched to their mother.

Using this variable minimizes the number of uncertain cases, where more than one potential mother could be matched to the same child. This is because the matching of potential mothers and children is based on the family's identification number. If two women live with the child, say its mother and grandmother, the mother alone will have the same family identification number as the child. However, some coding errors may result in children being matched to someone other than their mother (grandmother, stepmother, etc.).

The family tie variable is entered for households only, which explains the choice of population for the analysis. A mere 0.5% of children under-five do not live in ordinary households. The matching of mothers and children is necessary to calculate the mother's age at the birth of her children. But the denominator used to calculate the age-specific fertility rates includes all women living in ordinary households (including those not living in a family or living alone).

The proportion of children who cannot be matched to their mother in EAR 2005-2009 ranges between 2.0% and 2.7% (Table 1A). With nearly 4% of children not matched to their mother, the EAR 2004 data seem to be of poorer quality. EAR 2004 was the first annual survey conducted for the new French census, which may explain why some variables covering aspects going beyond narrow population enumeration are less accurate than in subsequent annual surveys.

The own-children method cannot easily be applied to measure male fertility. At age 1 year, around 10% of children are not matched to their father in the annual census surveys (Table 1B). This proportion is higher than for mothers and has several explanations. First, around 3% of children are not recognized by their father in vital records (Prioux and Mazuy, 2009). Second, mothers more often receive custody of very young children following a separation. For these reasons our analysis will be limited to female fertility, since 97-98% of children can be matched to their mother (except in EAR 2004).

The disparities between the fertility rates estimated from the census surveys and those based on vital records can be explained by several factors:

- Around 2.5% of young children under age six living in ordinary households cannot be matched to their mother in the annual census surveys (excluding EAR 2004).
- Children aged under 2 years are probably under-reported in the census. Several hypotheses have been put forward for this, in particular under-reporting by parents on census forms or a collection bias (if a section of the population not covered by the census has a specific profile). All in all, between the number of births in year *t* in vital statistics, published in INSEE's demographic report,

Table 1. Percentages of children not matched to their mother (A) or their father (B) in the annual census surveys, 2004-2009

Children born in year	Children of year *t* not matched to											
	A. their mother						B. their father					
	2004	2005	2006	2007	2008	2009	2004	2005	2006	2007	2008	2009
t – 1	3.7	2.1	2.1	2.1	2.1	2.0	10.9	9.9	9.9	10.5	10.2	10.2
t – 2	3.6	2.0	2.0	2.0	2.0	2.2	11.8	11.1	11.1	8.3	11.0	11.6
t – 3	3.6	2.2	2.2	2.2	2.4	2.1	13.2	12.4	12.4	10.5	12.6	12.5
t – 4	3.6	2.5	2.5	2.5	2.6	2.5	13.9	13.9	14.0	14.1	13.8	13.9
t – 5	3.8	2.5	2.5	2.6	2.7	2.5	14.4	14.4	14.7	14.7	15.0	14.6

Interpretation: Matching to a potential mother (woman aged 15-49 living in a household) was not possible for 3.7% of the children born in 2003 and enumerated in 2004 in households; paternal matching was not established for 10.9% of the children born in 2003 and enumerated in households in 2004.
Population: Metropolitan France, children living in ordinary households.
Sources: INSEE, annual census surveys 2004-2009.

and the number of children from a census survey for year *t* + 1, the difference is around 3%, representing a shortfall of 20,000 to 30,000 children compared with vital records. This disparity between vital records and censuses has also been observed in other countries (Coeffic, 1993; O'Hare, 2009). Under-reporting of children aged under 2 years leads to an underestimation of birth numbers but not necessarily of fertility rates, if the mothers are also absent from the survey.

• Adopted children from abroad are enumerated in the census but are not included in the birth numbers from vital records. They account for a relatively small proportion of total births, however (around 0.5%).(2)

• Our application of the own-children method considered all children resident in France at the time of the census, including those born abroad, while the standard method based on vital records only counts children born in France. This pushes up the number of births obtained in the annual surveys, although children who emigrate or die before the census are not enumerated. The under-five mortality probabilities and net migration estimates can be used to evaluate this underestimation due to mortality and emigration (though the calculation of fertility rates will be unaffected if the mothers also emigrate). Under-five mortality is responsible for a shortfall of children of around 0.4% in the census.

• Women who die before the census survey are not enumerated. Nor are those who emigrate, who may or may not take their children with them.

• Stepchildren who enter a household at very young ages may be incorrectly assigned to a stepmother. But this situation is rare (since young children whose

(2) In 2003, 4,500 children were adopted by families in France, representing 0.5% of all births recorded in that year. A large majority (90%) came from foreign countries (Halifax and Villeneuve-Gokalp, 2005). The result is a TFR overestimated by 0.01 child per woman.

parents separate seldom live at their stepmother's home)[3] and has no incidence on the number of births or on age-specific fertility rates (assuming that mothers and stepmothers are of similar ages).

• Restricting attention to ordinary households (the only situations where the relationship between children and their mother can be reconstituted) implies a shortfall in the numbers of children but also of women compared with indicators based on vital records that cover the entire population. However, a mere 0.5% of children (numerator), and around 1.5% of women aged 15-49, do not live in households. The shortfall of children is tiny, while that of women comes primarily from young women moving to boarding schools, hostels, and university halls of residence at ages when childbearing is virtually nil. Consequently, the TFR derived from census survey data would be only very slightly lower if the non-household population were included (the difference when the rates are summed is less than 0.01 child per woman).

• The indicators based on vital records relate the birth numbers from that source to the population enumerated in the census. Although a proportion of women may be omitted from the census, there is adjustment for non-response and the number of women not enumerated is extremely small, so that the resulting difference is negligible.

All in all, the small percentage of missing children does not greatly affect the fertility rates since some women are also not enumerated. Furthermore, arrivals and departures tend to cancel each other out to some extent. The main drawback of the own-children method, therefore, is the proportion of children who cannot be matched to their mother or their father (indeed the method is not applicable to the latter).

Divergences from vital records are larger before age 30

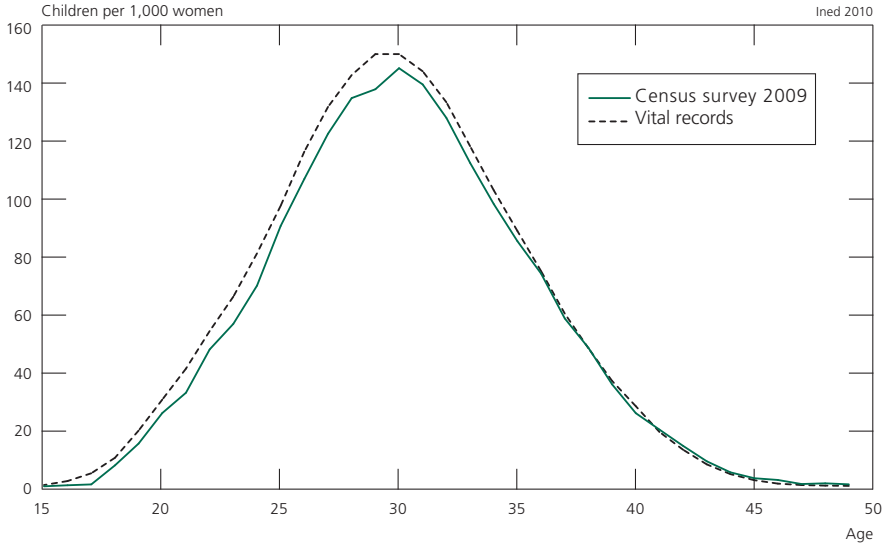
Because the information on the individual census questionnaire includes the year of birth of all household members, it is possible to calculate the age of mothers at the birth of their children and thus estimate age-specific fertility rates. The discrepancy between the census surveys and vital records is largest at young ages and at the ages of high fertility (Figure 1). This may be because the populations enumerated by the two data sources differ in terms of migration behaviour and mortality, or because of errors over the mother's age.

The TFR calculated using the own-children method for women living in ordinary households follows the same trend as that based on vital records (Figure 2) but is about 5% lower. Between 2000 and 2008, mean TFR rose from 1.81 to 1.88 children per woman when based on the census surveys, and from 1.87 to 1.99 when based on vital records.[4]

(3) Less than 1.5% of children under 17 live with their father and a stepmother (Chardon and Vivas, 2009) and the proportion is probably lower under age 6.

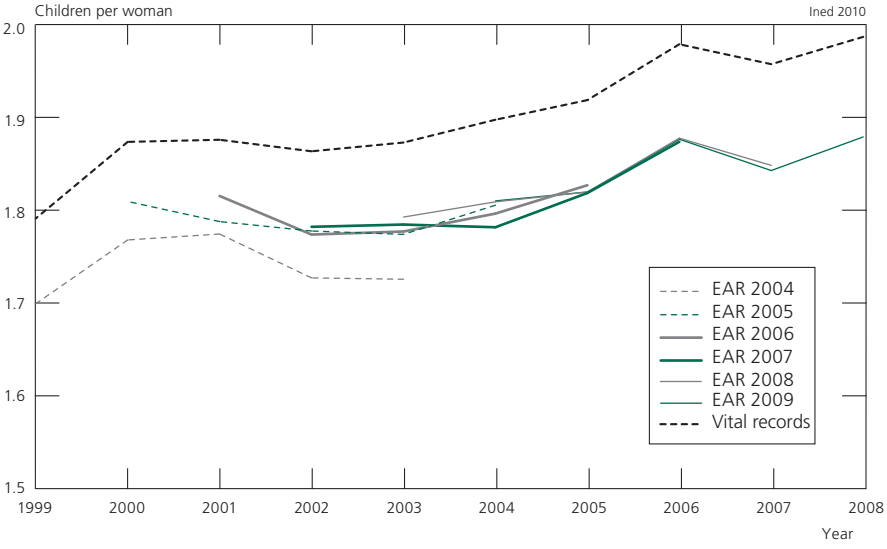
(4) In any given year, the more recent the census survey, the higher the TFR, perhaps due to female immigrants with children arriving after the birth year under consideration, or to the mortality of mothers since that year.

Figure 1. Age-specific fertility rates, France 2008



Note: Age reached in the year.
Population: Annual census survey: metropolitan France, women aged 15-49 living in ordinary households; vital records: metropolitan France, women aged 15-49.
Sources: INSEE, annual census survey 2009 and vital records (provisional estimate).

Figure 2. Total fertility rate, France 1999-2008

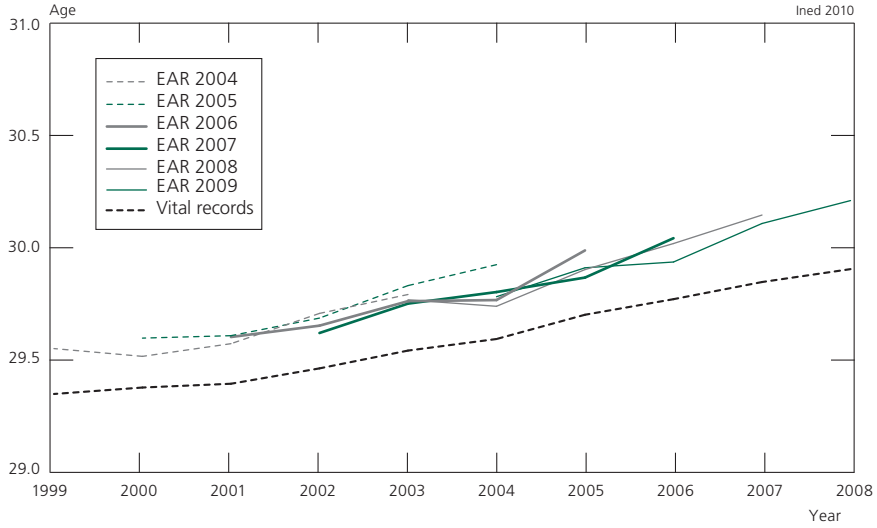


Note: See Appendix 3 for details of calculation.
Population: Annual census surveys: metropolitan France, women aged 15-49 living in ordinary households; vital records: metropolitan France, women aged 15-49.
Sources: INSEE, annual census surveys 2004-2009, and vital records (provisional data for 2007 and 2008).

The disparities between the census survey data and vital records are largest for 2004 and 2009, most of all for 2004, the year the new census was introduced.

The discrepancy between the two methods is largest at young ages, implying that the mean ages at childbirth are higher when based on the census surveys than on vital records (Figure 3). Mean age at childbirth calculated from the census surveys follows the same trend as that based on vital statistics data but at a slightly higher level. It stood at 29.8 years between 2000 and 2008 in the census surveys against 29.6 in vital records. Over the same period, mean age at childbirth rose from 29.6 to 30.2 according to the census surveys, and from 29.3 to 29.9 according to vital records. The results obtained with the own-children method are thus consistent with vital records to within 0.2 or 0.3 of a year. The results for EAR 2004, though robust, are less reliable and will not be used in our analysis of fertility by educational level.

Figure 3. Mean age at childbirth, France 1999-2008



Note: See Appendix 3 for details of calculation.
Population: Annual census surveys: metropolitan France, women aged 15-49 living in ordinary households; vital records: metropolitan France, women aged 15-49.
Sources: INSEE, annual census surveys 2004-2009, and vital records (provisional data for 2007 and 2008).

We can thus assume that the fertility rates based on the annual census surveys are robust, and that their difference with respect to rates based on vital records are due mainly to children not matched to their mothers and under-counting of infants in the census, and to an over-estimation of births in vital records. It would have been possible to adjust fertility rates, notably because the percentage of children not matched to their mother and under-five mortality are both known. However, it was decided not to adjust the census

survey data, since the main aim is less to establish absolute fertility levels than to compare fertility between different population sub-groups.

Our analysis by educational level concerns women and children alive at the time of the census surveys between 2005 and 2009, resident in metropolitan France at the time of the survey,(5) and living in an ordinary household. By considering births in the five years before each census survey,(6) indicators that go back to 2000 can be produced. To facilitate interpretation, we give the average results from the different census surveys available for a given year of birth: for example, the indicators for 2007 are obtained by averaging the information from EAR 2008 and 2009 on births one and two years, respectively, before the survey. The indicators for 2000 and 2008 are based on data from EAR 2005 and 2009, respectively.

II. Differentials in behaviour by educational level

As age at completion of education has an influence on women's age at childbirth (Robert-Bobée and Mazuy, 2005), analysis by educational level can provide useful new insights. The census does not record the age at completion of education but does give the most recent qualification obtained, which is what we use here. Educational level is doubly interesting since it reflects social differences but also differences in the life cycle and personal career of women. A preliminary study looked at educational level and socioeconomic status (Davie, 2010). Analysis was problematic, however, because although many mothers are reported as economically inactive, a proportion of them are probably on parental leave, and this information is not recorded in the individual census questionnaires. For this reason, the analysis of fertility by socioeconomic status is hard to perform with the census survey data.

The educational level is that reported at the time of the census, not at the birth of the child (Box 2), and so may have changed between the birth and the census. The educational level of mothers after the birth of their child(ren) depends both on their social category and on the interactions between childbearing and completion of education. Early parenthood has a powerful effect on educational outcomes, especially for young women (Brown and Jaspard, 1995). However, although childbearing at young ages is more frequent in the lowest social categories, the numbers involved are very small. Only 2% of mothers who gave birth in the year before each census survey were still in education at the time of the census. On balance, changes in educational level in the five years prior to the census survey can safely be overlooked.

(5) By choosing to work at the level of metropolitan France, the results can be compared with those from earlier studies, most of which do not include the overseas *départements*. For an analysis of fertility in France's overseas *départements*, see Breton and Temporal (2010) and Temporal (2010).

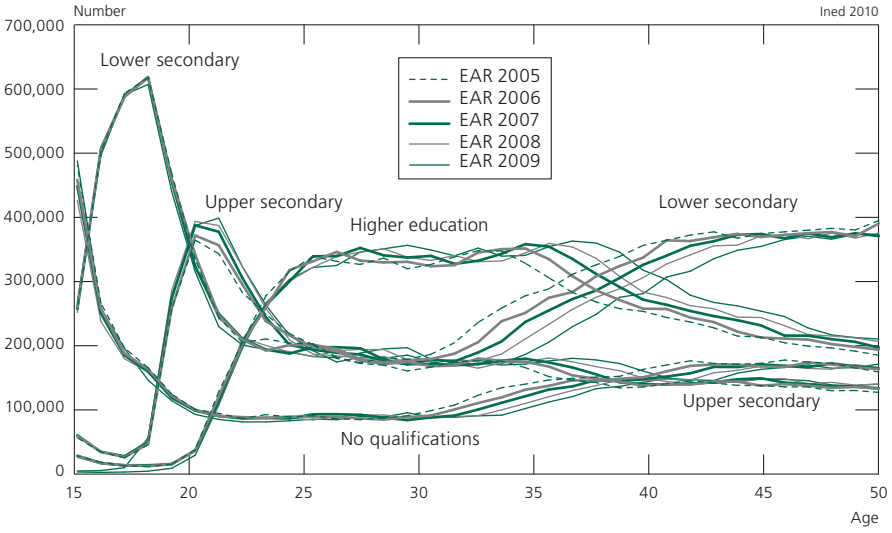
(6) The results from part one show the indicators to be stable for births from $t - 1$ to $t - 5$. We therefore decided to go back five years before each annual census survey.

Box 2. Educational levels in France

The educational level corresponds to the most recent qualifications obtained.
Four broad categories are used:
- No qualifications,
- Lower secondary level (*Certificat d'études primaires, Brevet des collèges*, BEPC, CAP, BEP),
- Upper secondary level (general, technological, or vocational *baccalauréat*),
- Degree in higher education.

Figure 4 shows how educational level varies with age and birth cohort. At young ages (15-19) the educational level of the population is very low, while at older ages, levels are higher the more recent the year. However, the effect of age is slight at young ages since very few women have a child before age 20. The own-children method does in fact go some way towards overcoming this problem when fertility rates are calculated on births from four or five years before the census survey. For example, for young women aged 15-19, of average age 17, taking into account their educational level five years later (at average age 22) brings us closer to their social category of destination, since the upper secondary level (*baccalauréat*) is usually completed around age 18, and the highest qualification considered here (degree level) is obtained on average three years after that, towards age 21. The population in the denominator contains fewer women with no qualifications and is closer to the final distribution

Figure 4. Distribution by age and educational level of women resident in metropolitan France, 2005-2009



Note: Age reached in the year.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Source: INSEE, annual census surveys 2005-2009.

by educational level. In addition, thanks to the democratization of education, the distribution of women by educational level is evolving over time, though the change over the observation period is modest (Table 2). The proportion of women with no qualifications among school leavers is falling, and women's educational level is rising (Mainguené, 2010). For the population of women aged 20-49 in the 2005 census survey, the proportions are 14% with no qualifications, 34% with a lower secondary qualification (below *baccalauréat* level), 34% with an upper secondary qualification (*baccalauréat*), and 31% with a degree in higher education. In 2009, the proportion falls to 13% for no qualification and rises to 34% for a degree in higher education.

Table 2. Distribution of women by educational level, 2005-2009

Annual census survey	No qualifications	Lower secondary	Upper secondary	Higher education
2005	14.4	34.1	20.5	31.1
2006	13.9	33.3	21.0	31.8
2007	13.6	32.3	21.4	32.8
2008	13.3	31.6	21.9	33.3
2009	12.9	30.5	22.2	34.4

Note: Age reached in the year. Table limited to women aged 20-49 given that most women aged 15-19 are still at school and have not yet completed their education.
Population: Metropolitan France, women aged 20-49 living in ordinary households at the time of the census survey.
Sources: INSEE, annual census surveys 2005-2009.

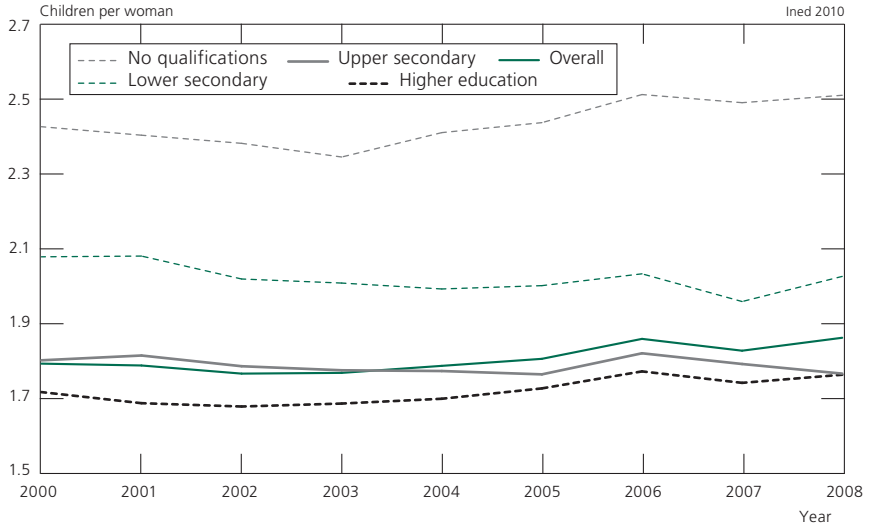
Fertility is increasing most for women with no qualifications

The lowest educated women have a higher fertility than the highest educated (Figure 5), and the fertility of both categories rose between 2000 and 2008. The level of overall fertility has thus held up thanks to these women, while for the intermediate categories there is a slight downward trend.

Mean age at childbirth rises with educational level. In 2008, women with no qualifications were 3.5 years younger than those with a degree in higher education, and 2 years younger than *baccalauréat* holders, when they had their children. The move to later age at childbirth is observed for all educational levels but is stronger for low educated women (Figure 6). This suggests that the discrepancy between the total fertility rates is under-estimated, because the shift to later childbearing is greatest among the least educated women.

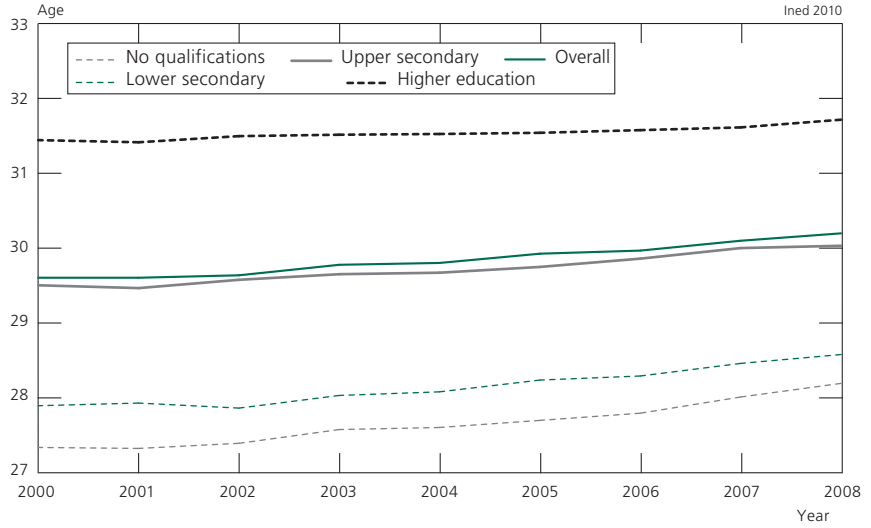
Fertility variations by educational level remain substantial in 2008, in terms of both levels and timing. Women with degree-level qualifications concentrate their childbearing into a shorter age interval, centred around 31 years (Figure 7). The same pattern is observed for women *baccalauréat* holders, although it is less pronounced. For women with no qualifications, fertility is higher, earlier and more spread out in time. While over two-thirds (70%) of total births are concentrated in the 25-35 years age range, the proportion

Figure 5. Total fertility rate by educational level, 2000-2008



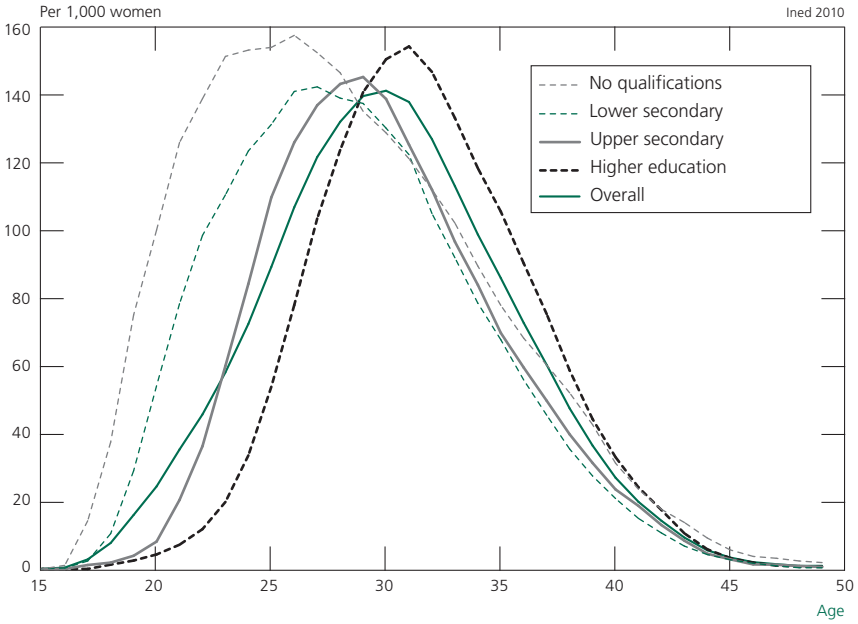
Note: The values are obtained by averaging the TFRs of the different available census surveys for the year of birth considered. The method for calculating the total fertility rate is given in Appendix 3.
Population: Metropolitan France, women aged 15-19 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

Figure 6. Mean age at childbirth by educational level, 2000-2008



Note: The values are obtained by averaging the mean ages from the different census surveys available for the year considered. The method of calculating the mean ages is given in Appendix 3.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

Figure 7. Age-specific fertility rates by educational level in 2008



Note: Age reached in the year.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Source: INSEE, annual census survey 2009.

Table 3. Contribution of age groups to births by educational level, total fertility rate (TFR), mean age, and standard error, 2008

Age reached	No qualifications	Lower secondary	Upper secondary	Higher education	Overall
Below 25	31.8	25.1	12.3	4.6	13.8
25-35	54.9	63.7	73.2	74.5	70.2
Over 35	13.3	11.3	14.5	20.9	16.0
Overall	100.0	100.1	100.0	100.0	100.0
TFR	2.5	2.0	1.8	1.8	1.9
Mean age at childbirth	28.2	28.6	30.0	31.7	30.2
Standard error	5.3	5.3	5.5	5.6	5.5

Note: Age reached in the year.
Interpretation: The 25-35 age group contributes over half (54.9%) of births to women with no qualifications, whereas this age group contributes almost three-quarters (74.5%) of births to women with degree-level qualifications.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Source: INSEE, annual census survey 2009.

is 75% for women with degree-level qualifications, against 55% for those with no qualifications. Childbearing under age 25 is rare among women educated to degree level (5%) but more than a third of women with no qualifications have a child before that age. After age 35, women with a degree in higher education contribute 20% of the fertility in their category, those with no qualifications 13% (Table 3).

Almost half of children have a mother educated to degree level

Despite the higher fertility of the least educated women, their low relative weight in the population means that women with upper secondary or degree-level qualifications contribute most to French fertility. More than 43% of the children born in 2008 have a mother educated to degree-level (Table 4), against 34% for those born in 2000.

Table 4. Percentage of births to mothers with degree-level qualifications, by year of birth and census year

Annual census survey	Year of birth								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
2005	34.2	35.4	37.0	38.3	39.6				
2006		35.2	37.1	38.5	39.4	40.9			
2007			37.4	38.7	39.9	40.9	42.0		
2008				38.6	39.8	40.7	41.3	42.4	
2009					40.6	41.6	42.5	43.0	43.7

Population: Metropolitan France, women aged 15-49 living on ordinary households.
Sources: INSEE, Annual census surveys 2005-2009.

III. A first child at ages 25-30

More than 40% of births are first births

The number of births by birth order cannot be established correctly using data from vital records because the recorded birth order does not always correspond to the order among all the children of the same mother. This can happen when birth certificates are completed using the information in a couple's family registration booklet (*livret de famille*) in which the first child (following a remarriage) is incorrectly recorded as the mother's first child, even though she may have children from a previous union (recorded in a previous booklet). For births outside marriage, information on previous births is not always available, in which case the child is classified as the first-born. As a consequence of these registration errors, first births and mean ages at first birth calculated from this source are over-estimated. More accurate estimates of birth order can be obtained from the annual census surveys. A slight overestimation of first births may occur

for women who had a first child – who no longer lives at home – at a very young age, and later had a second child who is classified under the own-child method as their first, notably in cases of repartnering. Similarly, if a mother has a biological child who is younger than its co-resident step-siblings, this child is incorrectly assumed to be not her first child because the step-children are counted as her own children. But such situations are probably quite rare.

According to census survey data, 43% of all births are first births. Vital records put the proportion of first-order births much higher, in excess of 55% since 2002 (Table 5). The census-based order of magnitude is much more plausible, since that based on vital records is incompatible with current fertility levels: an average of 2 children per woman and 13% of childless women makes it extremely improbable that over half of births are first births.

Table 5. Percentage of first-order births according to different sources, 2000-2008

Source	Year								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
EAR	43.5	44.2	44.4	44.0	44.0	43.6	43.1	42.8	42.7
Vital records	52.2	54.5	55.9	57.0	57.5	57.5	57.5	57.0	57.3

Note: The values are obtained by calculating the average percentages from the different census surveys available for the year of birth considered.
Population: Annual census surveys: Metropolitan France, children living in ordinary households; vital records: Metropolitan France.
Sources: INSEE, annual census surveys 2005-2009; vital records.

The proportion of first births according to the census surveys is stable in the 2000-2008 period, and is close to that recorded in the 1999 Family History Survey (Étude de l'histoire familiale, EHF) which counted 42.7% first births in 1998 (Desplanques, 2008). For 2003, 43.7% of births recorded in the perinatal survey were first births (Blondel et al., 2005).

First-order fertility has tended to decline over this period for women with no qualifications and has risen slightly for women with degree-level qualifications (Table 6). So while the increase in total fertility among the least educated women comes from higher-order births, among higher educated women it comes increasingly from entry into motherhood. The decline in first-order fertility in 2007 and 2008 perhaps reflects a slowdown in immigration that reduces the proportion of recent female immigrants among potential first-time mothers (see Figure 9 below), notably among the least educated women. It will be possible to confirm and specify this trend using data from the next census surveys and from the next family and housing survey (Enquête Famille et logements) in 2011 (Rault et al., 2010).

Table 6. Sum of first-order fertility rates by educational level, 2000-2008 (children per woman)

Educational level	Year								
	2000	2001	2002	2003	2004	2005	2006	2007	2008
No qualification	0.92	0.91	0.90	0.87	0.88	0.88	0.88	0.83	0.82
Lower secondary	0.93	0.92	0.89	0.86	0.85	0.84	0.84	0.78	0.80
Upper secondary	0.88	0.89	0.87	0.85	0.83	0.82	0.82	0.79	0.78
Higher education	0.80	0.80	0.80	0.80	0.81	0.82	0.83	0.83	0.83
Overall	0.82	0.83	0.83	0.82	0.83	0.83	0.84	0.82	0.83

Note: The values are obtained by calculating the mean of the first-order fertility rates from the census surveys available for the year of birth considered.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

Generally speaking, the birth of a first child is an important event by its frequency (43% of newborns are first births for their mothers). Each year, some 400,000 men and women experience a first birth. It is also an event that affects most of the population, given the small number of women who remain childless, and thus illustrates the enduring strength of the parenthood norm in France.

Mean age at first birth varies with educational level

Mean age at first birth rises with educational level (Table 7). With a five-year difference in this age between the highest and lowest educated women, the timing of the transition to motherhood is sharply differentiated by socioeconomic status. However, because the shift to later childbearing is faster for the least educated, this disparity is tending to narrow over time. The move to later childbearing observed for all births is particularly marked for first

Table 7. Mean age of mothers at first birth, 2000-2008

Educational level	Year									Change 2000-2008 (months)
	2000	2001	2002	2003	2004	2005	2006	2007	2008	
No qualification	24.2	24.3	24.5	24.6	24.6	24.7	24.8	25.0	25.3	+12.9
Lower secondary	25.5	25.7	25.6	25.8	25.8	25.9	25.9	26.2	26.1	+7.0
Upper secondary	27.7	27.6	27.7	27.8	27.8	27.8	28.0	28.1	28.3	+7.6
Higher education	29.7	29.6	29.8	29.8	29.8	29.8	29.8	29.9	30.0	+3.9
Overall	27.5	27.6	27.7	27.8	27.9	28.0	28.0	28.2	28.3	+9.3

Note: The figures are obtained by averaging the mean ages of mothers in the census surveys available for the year of birth considered. The method of calculating the mean ages is given in Appendix 3. Mean ages are given in years and tenths of years.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

births. The experience of having children is being pushed back ever later, until couples feel ready to become parents (Mazuy, 2009), thanks to the generalized practice of contraception that gives men and women more effective control over the timing of family formation.

IV. Women born outside metropolitan France have little influence on overall fertility levels

Female fertility is affected by different modes of socialization (family history, length of education, age at union formation, contraceptive practice, etc). Socialization outside France and geographical mobility influence the fertility of non native-born women in ways that are not, by definition, applicable to women born in France. We distinguish between women born in metropolitan France and women born elsewhere. The latter may be French nationals born abroad or in the French overseas *départements* (DOM) and now resident in metropolitan France, or may be foreign nationals born abroad (immigrants). All these women share an experience of migration and of socialization outside metropolitan France. The proportion of non native-born women varies widely with educational level, and they are relatively more numerous among low educated women. Our analysis shows that fertility is more sensitive to migration for women with no qualifications than for those with intermediate or degree-level qualifications.

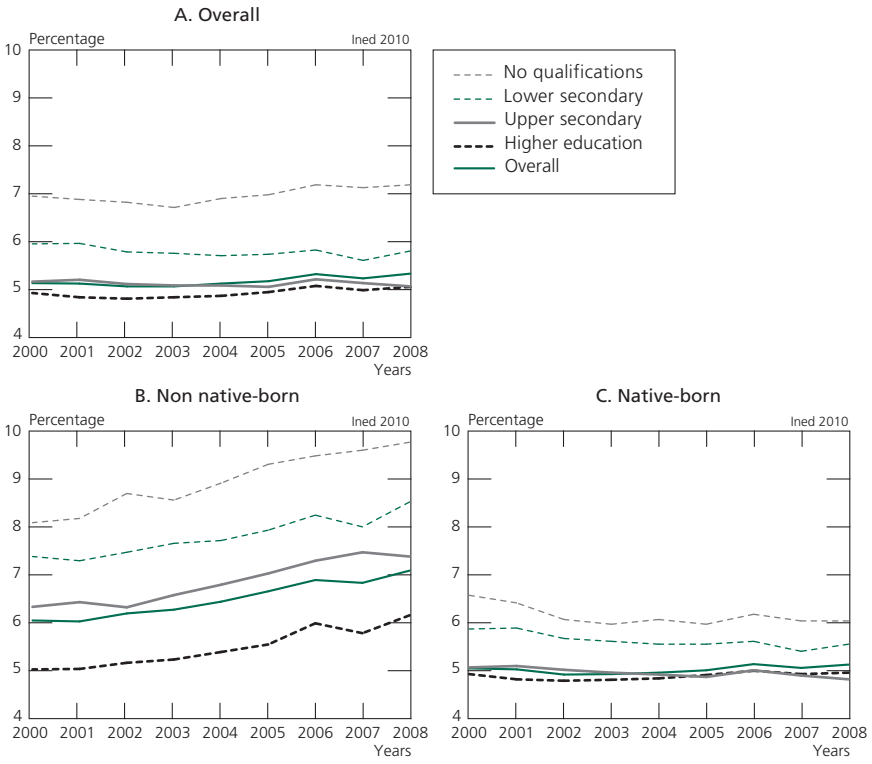
Their fertility levels are higher, partly for artificial reasons

Women born outside metropolitan France have higher fertility than native-born women: 7% of non native-born women had a child in 2008 versus 5% of women born in metropolitan France (Figure 8). For non native-born women, fertility is also more differentiated by educational level, and their total fertility rose substantially between 2000 and 2008 at all levels of educational attainment, in contrast to the relatively stable fertility over the same period for women born in metropolitan France. In part, therefore, the upward movement in overall fertility is explained by the increase in the fertility of non native-born women.

Fertility behaviour varies with the mother's place of birth. In part this is because women who have lived abroad were not socialized exclusively within France, with possible implications for their reproductive behaviour and educational level. It is also explained by the fact that fertility is closely linked both to the length of time since entering France, resulting in an over-estimation of their fertility[7] (Desplanques, 2008; Toulemon, 2004), and to the reason for their migration (employment, education, marriage, etc.), which is not given in the census survey data.

(7) This effect is smoothed slightly given that the births are studied five years before the census surveys. It is thus assumed that the women enumerated in the census surveys were already in France at that time.

Figure 8. Standardized fertility rates for all women (A) and by place of birth (B and C), 2000-2008



Note: Number of children per year for 100 women. The values are obtained by averaging the rates from the annual census surveys available for the year of birth considered.
The method of calculating the standardized rates is given in Appendix 3.

Interpretation: In 2008, almost 10% of non native-born women with no qualifications had a child, versus 6% of native-born women with no qualifications.

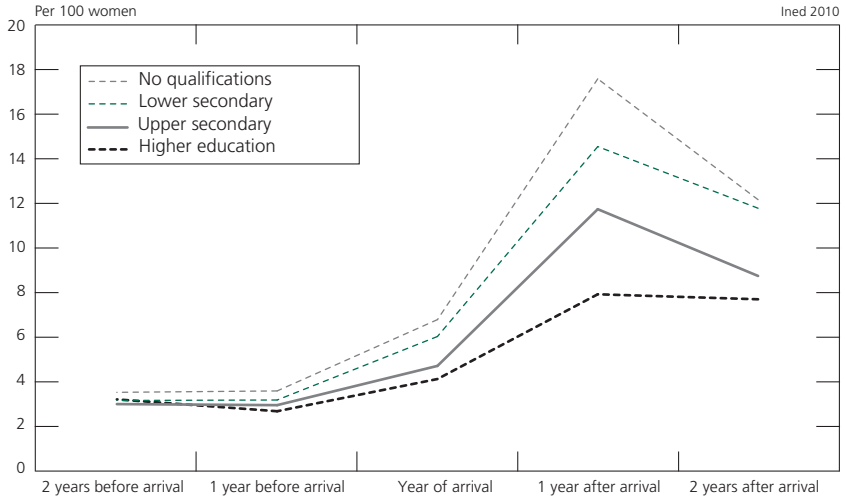
Population: Metropolitan France, women aged 15-49 living in ordinary households.

Sources: INSEE, annual census surveys 2005-2009.

The fertility of non native-born women is higher after migration but lower before, particularly for those with no qualifications who, by definition, migrated not to pursue their education but probably for family reunion. Thus, analysing fertility after migration does not give a representative picture of fertility over the migrants' whole lifetime, and for this reason the fertility of non native-born women is over-estimated. Fertility is high in the year following the date of arrival, especially for the least educated, in contrast to very low fertility before migration at all educational levels. There are fewer than 4 births per 100 women before migration, but nearly 18 for women with no qualifications and 8 for women with degree-level qualifications in the year after entry to France (Figure 9). Because the measure is established after arrival in France and, more importantly, very soon after that date, the usual indicators over-estimate fertility

levels for immigrant women and, in particular, for women of foreign nationality (who are more recent arrivals in France). The effect of the measure is partly artificial, in that the indicator is calculated at the time when fertility rates are highest across all ages. Calculating the TFR just before or just after migration yields sharply contrasting values. When the synthetic cohort method is applied to non native-born women, the implicit assumption is that women are continually entering France at all ages. In this specific instance, therefore, period analysis is heavily biased; a bias which can be addressed by using longitudinal indicators that take length of stay into account (Toulemon and Mazuy, 2005).

Figure 9. Standardized fertility rates of non native-born women by date of arrival in metropolitan France (number of children per year per 100 women)



Note: The information on the date of arrival comes from the individual census questionnaire, for all women born outside France (including the overseas *départements*). The information is not available for women born in the overseas *départements* and resident in metropolitan France, who are thus excluded from the analysis. The values are obtained by averaging the standardized rates from the annual census surveys available for the year of birth considered.
The method for calculating the standardized rates is given in Appendix 3.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

But they are a relatively small part of the population

Representing only a small share of the country's population, women born outside metropolitan France make a minor contribution to overall fertility, and this contribution is overestimated by the conventional indicators. It is increasing because their relative weight in the population, principally among the least educated women, has grown in recent years (Table 8). However, since the share of non native-born women with no qualifications in the population is small (3%), their contribution to total fertility remains relatively low.

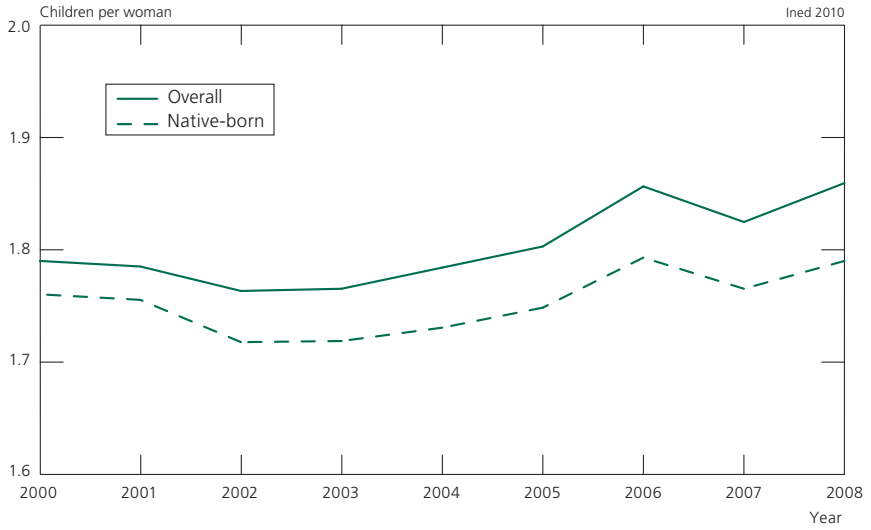
In 2008, the TFR in France was 1.86 children per woman. If calculated only for women born in metropolitan France, it stands at 1.79. The contribution of non native-born women is thus less than 0.1 children per woman, the fertility of native-born women being already relatively high (Figure 10).

Table 8. Percentages of non native-born among women aged 15-49 at the time of the annual census survey, for each educational level

Annual census survey	No qualifications	Lower secondary	Upper secondary	Higher education	Overall
2005	24.9	8.8	10.9	11.4	12.5
2006	25.1	8.8	10.8	11.3	12.4
2007	25.5	8.8	11.0	11.5	12.6
2008	26.6	8.9	11.2	11.6	12.8
2009	26.0	9.2	11.5	11.8	13.0

Note: Age reached in the year.
Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

Figure 10. Total fertility rates, all women and native-born women, 2000-2008



Population: Metropolitan France, women aged 15-49 living in ordinary households.
Sources: INSEE, annual census surveys 2005-2009.

Conclusion

Data from the French annual census surveys can now be used to analyse women's fertility by educational level over a long period. Such analysis was

already possible with the old-style census, but only for the five years prior to each census. The availability of several census surveys means that fertility can be tracked over almost a decade, from 2000 to 2008, and it will be possible to extend the analyses using the next annual surveys.

The own-children method requires each child to be matched to its mother in the census survey datasets. In addition to the under-reporting of infants in the census, about 2.5% of children cannot be matched to their mother (because they are not living in a household or not with their mother). As a result, the age-specific fertility rates derived from the annual census surveys are slightly lower than those calculated from vital records. This under-estimation is particularly large for young ages at childbirth. The TFR based on the annual census surveys is lower than that calculated conventionally with data from vital records. Mean age at childbirth is largely unaffected, though is slightly higher than that based on vital records.

Large contrasts are observed in the timing of women's childbearing. For the least educated women, average age at first birth is 25, while for women with the highest qualifications it is 30. For mothers educated to degree level, childbearing before age 25 is rare and is concentrated mainly between ages 25 and 35: 75% of births occur in this age range and 5% before age 25, while for mothers with no qualifications the proportions are 55% and 32%, respectively.

First births currently make up almost half of all births: 43% of women who give birth in France today are first-time mothers.

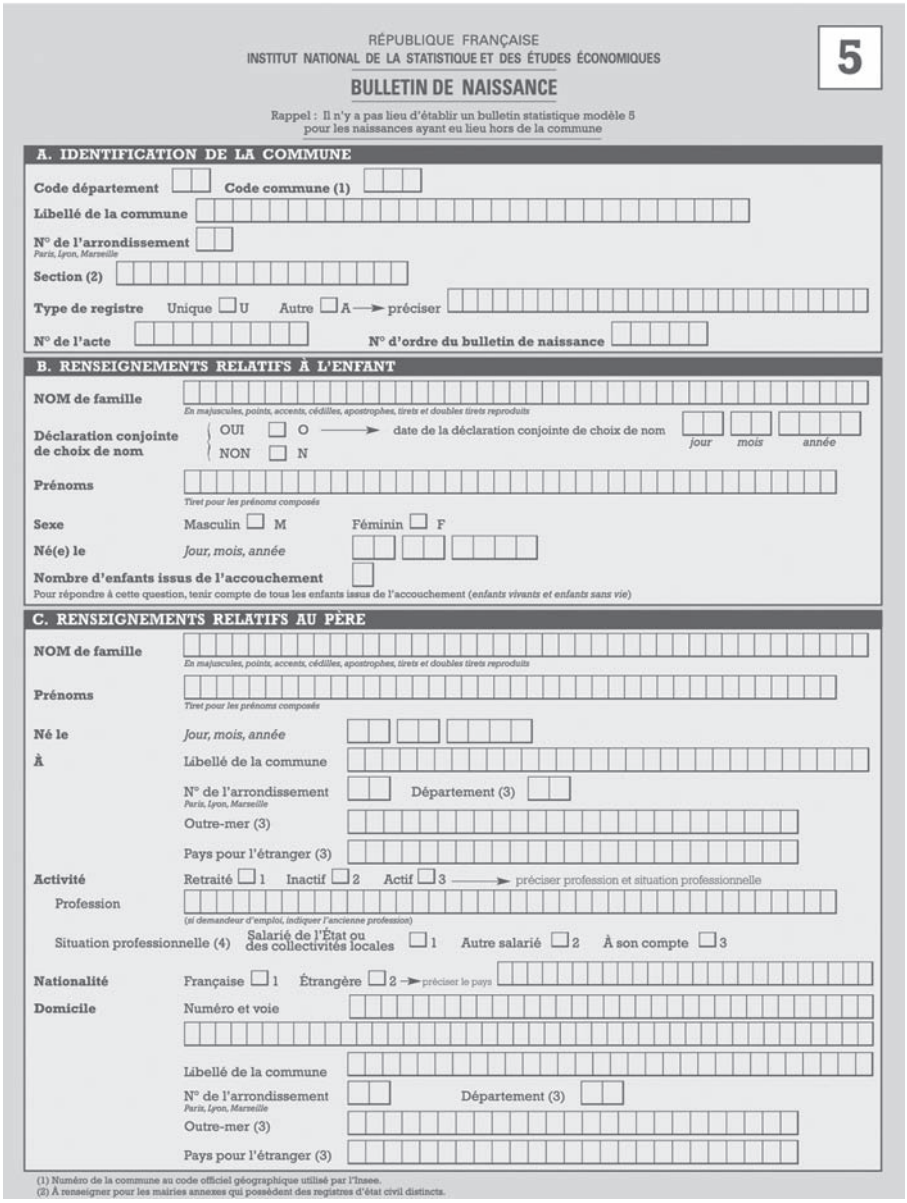
For women born in metropolitan France, the trend in period fertility is towards stability, or even a slight fall, in the average number of children, except for the highest and lowest educated women. The annual census surveys provide confirmation that fertility of non native-born women is closely linked to their length of stay in France. Their TFR is highest shortly after their arrival, particularly for low educated women. The reason for migrating, notably family reunion, explains why fertility is high once the women are united with their partner in France, whereas this effect is smaller for those with the highest qualifications, who probably come to France to pursue their education. We have also confirmed that the TFR traditionally calculated for the immigrant population, and for the foreign population in particular, stands at a high level, though part of it is artificial.

The impact of births to women born outside metropolitan France on overall fertility is positive but slight (less than 0.1 child per woman), since the total fertility rate for native-born women is already quite high.

Keywords: France, fertility, educational level, census, first child

Appendices

Appendix 1. Birth notification form (B5)



RÉPUBLIQUE FRANÇAISE
INSTITUT NATIONAL DE LA STATISTIQUE ET DES ÉTUDES ÉCONOMIQUES

5

BULLETIN DE NAISSANCE

Rappel : Il n'y a pas lieu d'établir un bulletin statistique modèle 5 pour les naissances ayant eu lieu hors de la commune

A. IDENTIFICATION DE LA COMMUNE

Code département ☐☐ Code commune (1) ☐☐☐

Libellé de la commune

N° de l'arrondissement (Paris, Lyon, Marseille) ☐☐

Section (2)

Type de registre Unique ☐ U Autre ☐ A → préciser

N° de l'acte N° d'ordre du bulletin de naissance

B. RENSEIGNEMENTS RELATIFS À L'ENFANT

NOM de famille
En majuscules, points, accents, cédilles, apostrophes, tirets et doubles tirets reproduits

Déclaration conjointe de choix de nom : OUI ☐ O → date de la déclaration conjointe de choix de nom (*jour, mois, année*) ; NON ☐ N

Prénoms
Tiret pour les prénoms composés

Sexe Masculin ☐ M Féminin ☐ F

Né(e) le *Jour, mois, année* ☐☐ ☐☐ ☐☐☐☐

Nombre d'enfants issus de l'accouchement ☐
Pour répondre à cette question, tenir compte de tous les enfants issus de l'accouchement (*enfants vivants et enfants sans vie*)

C. RENSEIGNEMENTS RELATIFS AU PÈRE

NOM de famille
En majuscules, points, accents, cédilles, apostrophes, tirets et doubles tirets reproduits

Prénoms
Tiret pour les prénoms composés

Né le *Jour, mois, année* ☐☐ ☐☐ ☐☐☐☐

À Libellé de la commune

N° de l'arrondissement (*Paris, Lyon, Marseille*) ☐☐ Département (3) ☐☐

Outre-mer (3)

Pays pour l'étranger (3)

Activité Retraité ☐ 1 Inactif ☐ 2 Actif ☐ 3 → préciser profession et situation professionnelle

Profession
(si demandeur d'emploi, indiquer l'ancienne profession)

Situation professionnelle (4) Salarié de l'État ou des collectivités locales ☐ 1 Autre salarié ☐ 2 À son compte ☐ 3

Nationalité Française ☐ 1 Étrangère ☐ 2 → préciser le pays

Domicile Numéro et voie

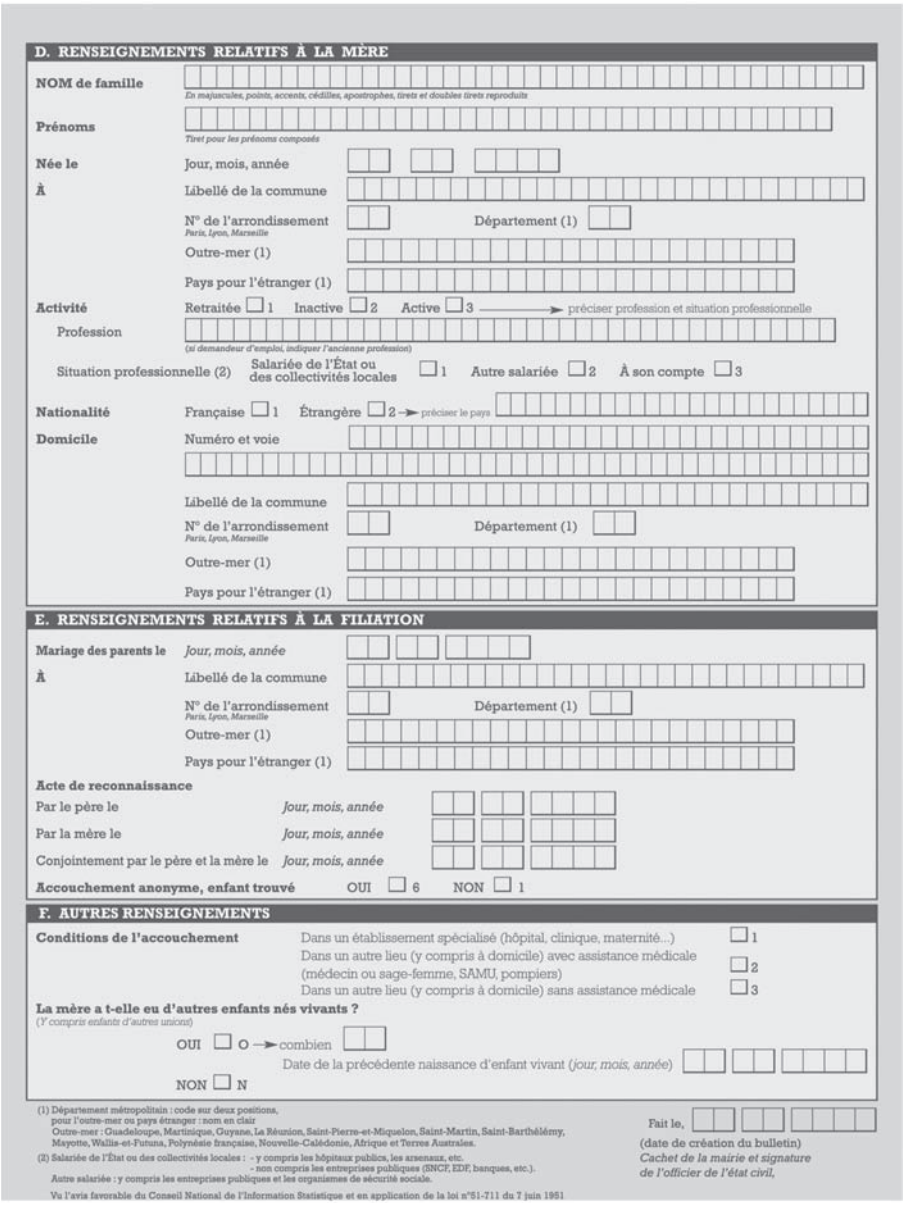
Libellé de la commune

N° de l'arrondissement (*Paris, Lyon, Marseille*) ☐☐ Département (3) ☐☐

Outre-mer (3)

Pays pour l'étranger (3)

(1) Numéro de la commune au code officiel géographique utilisé par l'Insee.
(2) À renseigner pour les mairies annexes qui possèdent des registres d'état civil distincts.



D. RENSEIGNEMENTS RELATIFS À LA MÈRE

NOM de famille
En majuscules, points, accents, cédilles, apostrophes, tirets et doubles tirets reproduits

Prénoms
Tiret pour les prénoms composés

Née le Jour, mois, année

À Libellé de la commune

N° de l'arrondissement *Paris, Lyon, Marseille* — Département (1)

Outre-mer (1)

Pays pour l'étranger (1)

Activité Retraitée ☐ 1 Inactive ☐ 2 Active ☐ 3 → préciser profession et situation professionnelle

Profession
(si demandeur d'emploi, indiquer l'ancienne profession)

Situation professionnelle (2) Salariée de l'État ou des collectivités locales ☐ 1 Autre salariée ☐ 2 À son compte ☐ 3

Nationalité Française ☐ 1 Étrangère ☐ 2 → préciser le pays

Domicile Numéro et voie

Libellé de la commune

N° de l'arrondissement *Paris, Lyon, Marseille* — Département (1)

Outre-mer (1)

Pays pour l'étranger (1)

E. RENSEIGNEMENTS RELATIFS À LA FILIATION

Mariage des parents le *Jour, mois, année*

À Libellé de la commune

N° de l'arrondissement *Paris, Lyon, Marseille* — Département (1)

Outre-mer (1)

Pays pour l'étranger (1)

Acte de reconnaissance

Par le père le *Jour, mois, année*

Par la mère le *Jour, mois, année*

Conjointement par le père et la mère le *Jour, mois, année*

Accouchement anonyme, enfant trouvé OUI ☐ 6 NON ☐ 1

F. AUTRES RENSEIGNEMENTS

Conditions de l'accouchement
Dans un établissement spécialisé (hôpital, clinique, maternité...) ☐ 1
Dans un autre lieu (y compris à domicile) avec assistance médicale (médecin ou sage-femme, SAMU, pompiers) ☐ 2
Dans un autre lieu (y compris à domicile) sans assistance médicale ☐ 3

La mère a t-elle eu d'autres enfants nés vivants ?
(Y compris enfants d'autres unions)

OUI ☐ O → combien

Date de la précédente naissance d'enfant vivant (*jour, mois, année*)

NON ☐ N

(1) Département métropolitain : code sur deux positions, pour l'outre-mer ou pays étranger : nom en clair
Outre-mer : Guadeloupe, Martinique, Guyane, La Réunion, Saint-Pierre-et-Miquelon, Saint-Martin, Saint-Barthélémy, Mayotte, Wallis-et-Futuna, Polynésie française, Nouvelle-Calédonie, Afrique et Terres Australes.

(2) Salariée de l'État ou des collectivités locales : - y compris les hôpitaux publics, les arsenaux, etc.
- non compris les entreprises publiques (SNCF, EDF, banques, etc.).
Autre salariée : y compris les entreprises publiques et les organismes de sécurité sociale.

Vu l'avis favorable du Conseil National de l'Information Statistique et en application de la loi n°51-711 du 7 juin 1951

Fait le,
(date de création du bulletin)
Cachet de la mairie et signature de l'officier de l'état civil,

Appendix 2a. Annual census survey 2009. Dwelling form

Recensement de la population - 2009
Feuille de logement

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Votre réponse est importante

Les enquêtes de recensement de la population sont maintenant réalisées chaque année auprès d'une partie de la population. **Cette année, vous êtes concerné(e).**
Les acteurs de la vie économique et sociale disposent désormais tous les ans d'une information récente sur la population et les logements.
Parce que mieux connaître les évolutions de la société française est utile à tous, **votre participation est essentielle**. Merci.

Comment remplir les questionnaires ?

Commencez par ce document. Puis remplissez un bulletin individuel pour chacun des habitants permanents du logement.
Pour faciliter la lecture automatique des questionnaires, **merci d'écrire au stylo à bille noir ou bleu**.
N'utilisez pas de crayon à papier, ni de blanc correcteur.

Pour répondre aux questions :
- cochez la case qui convient X
ou
- notez un chiffre par case 0 4
ou
- écrivez très lisiblement SAINT-MALO

Ne rayez pas les autres cases, même si vous n'êtes pas concerné(e) par la question.

Ne pliez pas les questionnaires.

Vos réponses sont confidentielles

Vos réponses sont confidentielles. Elles sont destinées à l'élaboration de statistiques ne comportant ni le nom ni l'adresse. Ces dernières informations sont néanmoins nécessaires pour vérifier que les logements et les personnes sont comptés une fois et une seule, et pour assurer la qualité des statistiques produites.

Cadre à remplir par l'agent recenseur

Imprimé n° 1

Identifiant

commune | dépt | commune | CIL | IRIS ou district | FIL | rang A | rang L

Catégorie du logement

1 ☐ Résidence principale
2 ☐ Logement occasionnel
3 ☐ Résidence secondaire
4 ☐ Logement vacant

Type de construction

Bâtiment d'habitation d'un seul logement
1 ☐ Isolé
2 ☐ Jumelé, en bande ou groupé de toute autre façon
3 ☐ Bâtiment d'habitation de 2 logements ou plus
4 ☐ Bâtiment à usage autre que d'habitation (communauté, usine, gare, stade, immeuble de bureaux, etc.)
5 ☐ Construction provisoire, mobile home
6 ☐ Caravane, habitation mobile

Nombre de bulletins individuels collectés :

SPECIMEN

Commencez ici

Localisation du logement

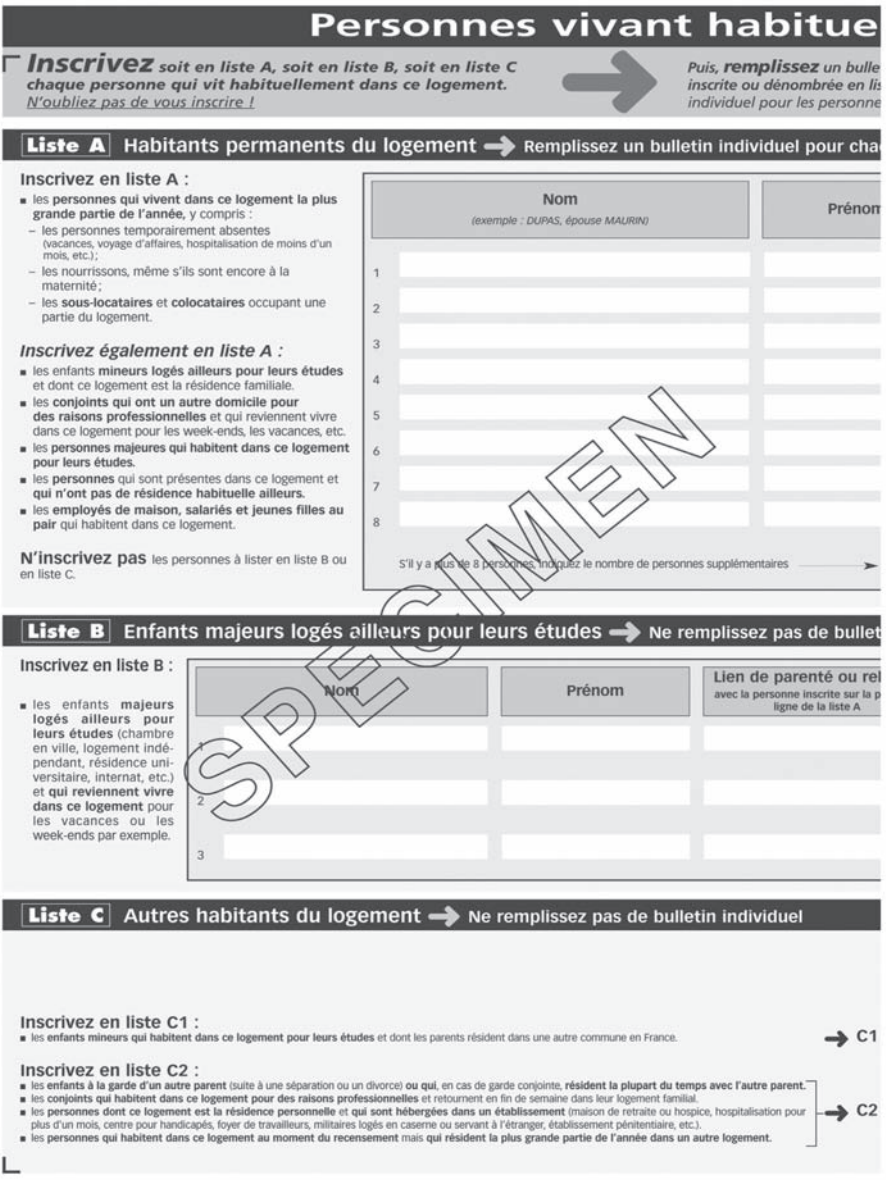
Numéro | Bis, Ter… | Rue, Av, Bd… | Nom de la voie (ou lieu-dit)
Résidence, hameau, lotissement… | Bâtiment
Escalier | Étage | N° de porte ou position par rapport à l'escalier *(exemple : couloir de droite, 1ère porte à gauche)*
Code postal | Commune (et arrondissement pour Paris, Lyon et Marseille)

Nom de l'occupant principal

Continuez pages 2, 3 et 4 →

Vu l'avis favorable du Conseil national de l'information statistique, et en application de la loi n° 51-711 du 7 juin 1951 modifiée, cette enquête, reconnue **d'intérêt général et de qualité statistique**, est **obligatoire**. Les réponses sont protégées par le secret statistique et destinées à l'élaboration de statistiques sur la population et les logements.
Visa n° 2009A001EC du ministre chargé de l'Économie, **valable de 2009 à 2013**.
En application de la loi n° 2002-276 du 27 février 2002, l'enquête de recensement est placée sous la responsabilité de l'Insee et des communes ou des établissements publics de coopération intercommunale.
La loi n° 78-17 du 6 janvier 1978 modifiée garantit aux personnes enquêtées un droit d'accès et de rectification pour les données les concernant. Ce droit peut être exercé auprès des directions régionales de l'Insee.

1



Personnes vivant habitue

Inscrivez soit en liste A, soit en liste B, soit en liste C chaque personne qui vit habituellement dans ce logement.
N'oubliez pas de vous inscrire !

Puis, **remplissez** un bulle inscrite ou dénombrée en li individuel pour les personne

Liste A Habitants permanents du logement → Remplissez un bulletin individuel pour cha

Inscrivez en liste A :

- les **personnes qui vivent dans ce logement la plus grande partie de l'année,** y compris :
  - les personnes temporairement absentes (vacances, voyage d'affaires, hospitalisation de moins d'un mois, etc.) ;
  - les nourrissons, même s'ils sont encore à la maternité ;
  - les **sous-locataires** et **colocataires** occupant une partie du logement.

Inscrivez également en liste A :

- les enfants **mineurs logés ailleurs pour leurs études** et dont ce logement est la résidence familiale.
- les **conjoints qui ont un autre domicile pour des raisons professionnelles** et qui reviennent vivre dans ce logement pour les week-ends, les vacances, etc.
- les **personnes majeures qui habitent dans ce logement pour leurs études.**
- les **personnes** qui sont présentes dans ce logement et **qui n'ont pas de résidence habituelle ailleurs.**
- les **employés de maison, salariés et jeunes filles au pair** qui habitent dans ce logement.

N'inscrivez pas les personnes à lister en liste B ou en liste C.

	Nom (exemple : DUPAS, épouse MAURIN)	Prénom
1		
2		
3		
4		
5		
6		
7		
8		

S'il y a plus de 8 personnes, indiquez le nombre de personnes supplémentaires →

Liste B Enfants majeurs logés ailleurs pour leurs études → Ne remplissez pas de bullet

Inscrivez en liste B :

- les enfants **majeurs logés ailleurs pour leurs études** (chambre en ville, logement indépendant, résidence universitaire, internat, etc.) et **qui reviennent vivre dans ce logement** pour les vacances ou les week-ends par exemple.

	Nom	Prénom	Lien de parenté ou rel avec la personne inscrite sur la p ligne de la liste A
1			
2			
3			

Liste C Autres habitants du logement → Ne remplissez pas de bulletin individuel

Inscrivez en liste C1 :

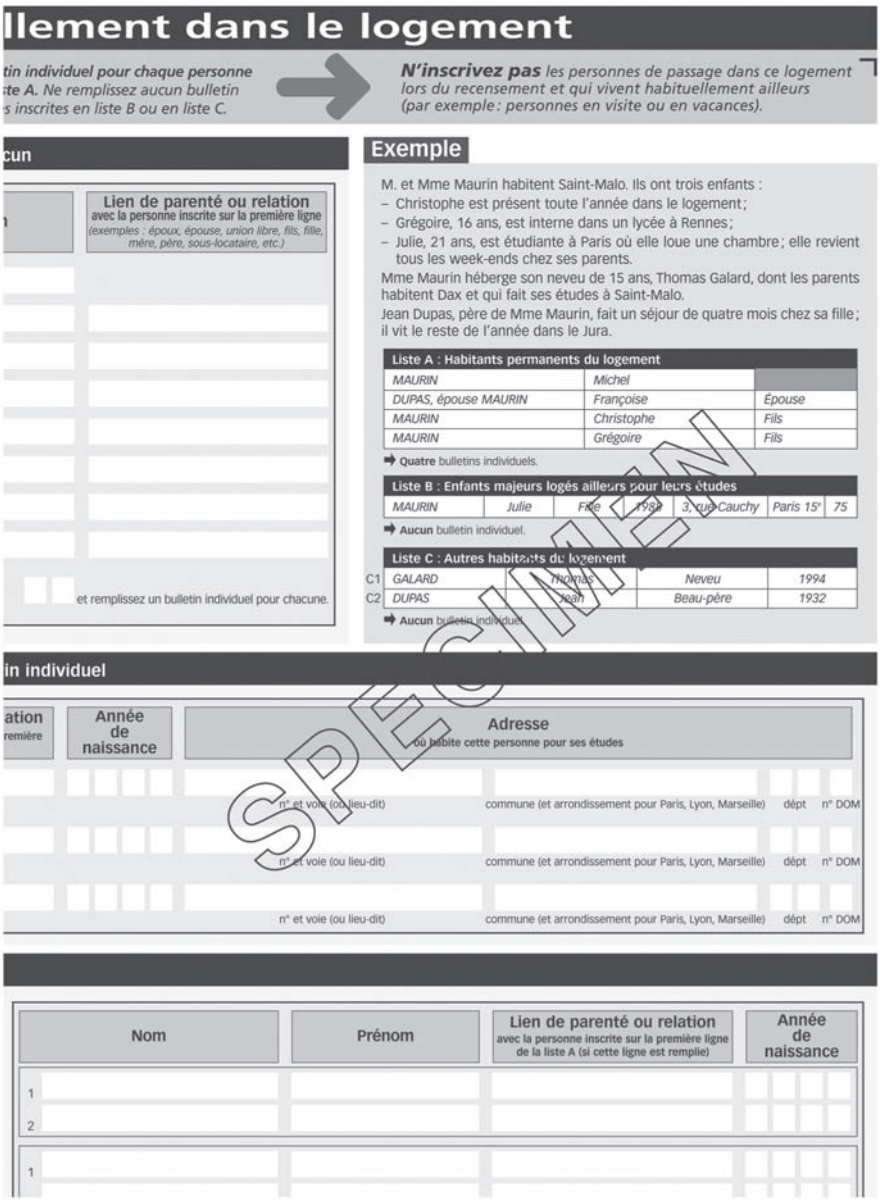
- les **enfants mineurs qui habitent dans ce logement pour leurs études** et dont les parents résident dans une autre commune en France. → C1

Inscrivez en liste C2 :

- les **enfants à la garde d'un autre parent** (suite à une séparation ou un divorce) **ou qui**, en cas de garde conjointe, **résident la plupart du temps avec l'autre parent.**
- les **conjoints qui habitent dans ce logement pour des raisons professionnelles** et retournent en fin de semaine dans leur logement familial.
- les **personnes dont ce logement est la résidence personnelle** et **qui sont hébergées dans un établissement** (maison de retraite ou hospice, hospitalisation pour plus d'un mois, centre pour handicapés, foyer de travailleurs, militaires logés en caserne ou servant à l'étranger, établissement pénitentiaire, etc.).
- les **personnes qui habitent dans ce logement au moment du recensement** mais **qui résident la plus grande partie de l'année dans un autre logement.** → C2

2

SPECIMEN



llement dans le logement

tin individuel pour chaque personne
te A. Ne remplissez aucun bulletin
s inscrites en liste B ou en liste C.

N'inscrivez pas *les personnes de passage dans ce logement lors du recensement et qui vivent habituellement ailleurs (par exemple : personnes en visite ou en vacances).*

cun

	Lien de parenté ou relation avec la personne inscrite sur la première ligne *(exemples : époux, épouse, union libre, fils, fille, mère, père, sous-locataire, etc.)*

et remplissez un bulletin individuel pour chacune.

Exemple

M. et Mme Maurin habitent Saint-Malo. Ils ont trois enfants :
- Christophe est présent toute l'année dans le logement ;
- Grégoire, 16 ans, est interne dans un lycée à Rennes ;
- Julie, 21 ans, est étudiante à Paris où elle loue une chambre ; elle revient tous les week-ends chez ses parents.

Mme Maurin héberge son neveu de 15 ans, Thomas Galard, dont les parents habitent Dax et qui fait ses études à Saint-Malo.

Jean Dupas, père de Mme Maurin, fait un séjour de quatre mois chez sa fille ; il vit le reste de l'année dans le Jura.

Liste A : Habitants permanents du logement

MAURIN	*Michel*	
DUPAS, épouse MAURIN	*Françoise*	*Épouse*
MAURIN	*Christophe*	*Fils*
MAURIN	*Grégoire*	*Fils*

➡ **Quatre** bulletins individuels.

Liste B : Enfants majeurs logés ailleurs pour leurs études

MAURIN	*Julie*	*Fille*	*1988*	*3, rue Cauchy*	*Paris 15e*	*75*

➡ **Aucun** bulletin individuel.

Liste C : Autres habitants du logement

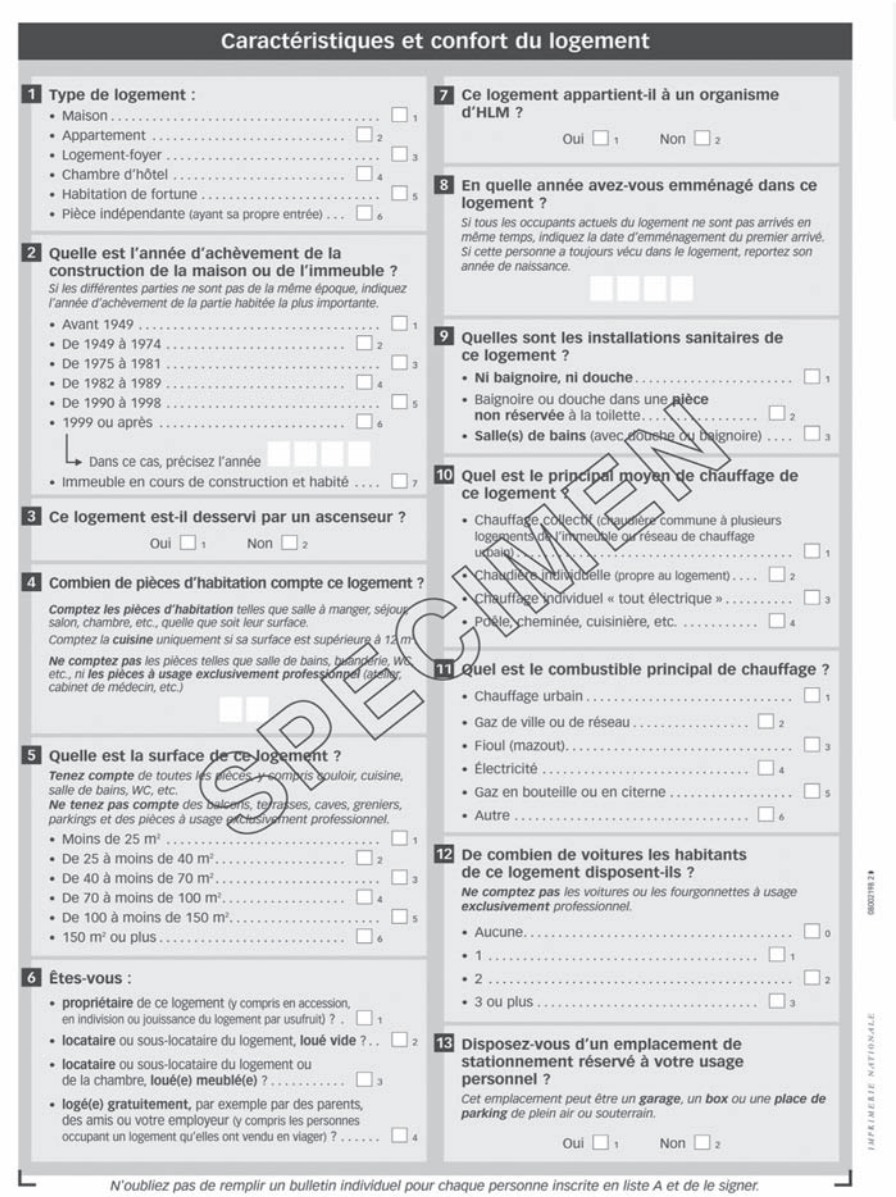
C1	*GALARD*	*Thomas*	*Neveu*	*1994*
C2	*DUPAS*	*Jean*	*Beau-père*	*1932*

➡ **Aucun** bulletin individuel.

in individuel

ation remière	Année de naissance	Adresse où habite cette personne pour ses études			
		n° et voie (ou lieu-dit)	commune (et arrondissement pour Paris, Lyon, Marseille)	dépt	n° DOM
		n° et voie (ou lieu-dit)	commune (et arrondissement pour Paris, Lyon, Marseille)	dépt	n° DOM
		n° et voie (ou lieu-dit)	commune (et arrondissement pour Paris, Lyon, Marseille)	dépt	n° DOM

	Nom	Prénom	Lien de parenté ou relation avec la personne inscrite sur la première ligne de la liste A (si cette ligne est remplie)	Année de naissance
1				
2				
1				



Caractéristiques et confort du logement

1 Type de logement :
- Maison ☐ 1
- Appartement ☐ 2
- Logement-foyer ☐ 3
- Chambre d'hôtel ☐ 4
- Habitation de fortune ☐ 5
- Pièce indépendante (ayant sa propre entrée) ☐ 6

2 Quelle est l'année d'achèvement de la construction de la maison ou de l'immeuble ?
Si les différentes parties ne sont pas de la même époque, indiquez l'année d'achèvement de la partie habitée la plus importante.
- Avant 1949 ☐ 1
- De 1949 à 1974 ☐ 2
- De 1975 à 1981 ☐ 3
- De 1982 à 1989 ☐ 4
- De 1990 à 1998 ☐ 5
- 1999 ou après ☐ 6
  - Dans ce cas, précisez l'année
- Immeuble en cours de construction et habité ☐ 7

3 Ce logement est-il desservi par un ascenseur ?
Oui ☐ 1 Non ☐ 2

4 Combien de pièces d'habitation compte ce logement ?
Comptez les pièces d'habitation *telles que salle à manger, séjour, salon, chambre, etc., quelle que soit leur surface.*
Comptez la ***cuisine*** *uniquement si sa surface est supérieure à 12 m².*
Ne comptez pas *les pièces telles que salle de bains, buanderie, WC, etc., ni* ***les pièces à usage exclusivement professionnel*** *(atelier, cabinet de médecin, etc.)*

5 Quelle est la surface de ce logement ?
Tenez compte *de toutes les pièces, y compris couloir, cuisine, salle de bains, WC, etc.*
Ne tenez pas compte *des balcons, terrasses, caves, greniers, parkings et des pièces à usage exclusivement professionnel.*
- Moins de 25 m² ☐ 1
- De 25 à moins de 40 m² ☐ 2
- De 40 à moins de 70 m² ☐ 3
- De 70 à moins de 100 m² ☐ 4
- De 100 à moins de 150 m² ☐ 5
- 150 m² ou plus ☐ 6

6 Êtes-vous :
- **propriétaire** de ce logement (y compris en accession, en indivision ou jouissance du logement par usufruit) ? ☐ 1
- **locataire** ou sous-locataire du logement, **loué vide** ? ☐ 2
- **locataire** ou sous-locataire du logement ou de la chambre, **loué(e) meublé(e)** ? ☐ 3
- **logé(e) gratuitement,** par exemple par des parents, des amis ou votre employeur (y compris les personnes occupant un logement qu'elles ont vendu en viager) ? ☐ 4

7 Ce logement appartient-il à un organisme d'HLM ?
Oui ☐ 1 Non ☐ 2

8 En quelle année avez-vous emménagé dans ce logement ?
Si tous les occupants actuels du logement ne sont pas arrivés en même temps, indiquez la date d'emménagement du premier arrivé. Si cette personne a toujours vécu dans le logement, reportez son année de naissance.

9 Quelles sont les installations sanitaires de ce logement ?
- **Ni baignoire, ni douche** ☐ 1
- Baignoire ou douche dans une **pièce non réservée** à la toilette ☐ 2
- **Salle(s) de bains** (avec douche ou baignoire) ☐ 3

10 Quel est le principal moyen de chauffage de ce logement ?
- Chauffage collectif (chaudière commune à plusieurs logements de l'immeuble ou réseau de chauffage urbain) ☐ 1
- Chaudière individuelle (propre au logement) ☐ 2
- Chauffage individuel « tout électrique » ☐ 3
- Poêle, cheminée, cuisinière, etc. ☐ 4

11 Quel est le combustible principal de chauffage ?
- Chauffage urbain ☐ 1
- Gaz de ville ou de réseau ☐ 2
- Fioul (mazout) ☐ 3
- Électricité ☐ 4
- Gaz en bouteille ou en citerne ☐ 5
- Autre ☐ 6

12 De combien de voitures les habitants de ce logement disposent-ils ?
Ne comptez pas *les voitures ou les fourgonnettes à usage* ***exclusivement*** *professionnel.*
- Aucune ☐ 0
- 1 ☐ 1
- 2 ☐ 2
- 3 ou plus ☐ 3

13 Disposez-vous d'un emplacement de stationnement réservé à votre usage personnel ?
Cet emplacement peut être un ***garage****, un* ***box*** *ou une* ***place de parking*** *de plein air ou souterrain.*
Oui ☐ 1 Non ☐ 2

N'oubliez pas de remplir un bulletin individuel pour chaque personne inscrite en liste A et de le signer.

SPECIMEN

IMPRIMERIE NATIONALE 0800219 23

Appendix 2b. Annual census survey 2009. Individual questionnaire

Recensement de la population - 2009
Bulletin individuel

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Imprimé n° 3

Exemple : DUPAS, épouse MAURIN

Nom :
Prénom :
Adresse :

Cadre à remplir par l'agent recenseur
commune
dépt commune

1 Sexe Masculin ☐ 1 Féminin ☐ 2

2 - Date et lieu de naissance
Né(e) le : jour mois année
à : commune (et arrondissement pour Paris, Lyon, Marseille)
département n° DOM pays pour l'étranger, territoire pour les TOM
Si vous êtes né(e) à l'étranger, en quelle année êtes-vous arrivé(e) en France ? année

3 Quelle est votre nationalité ?
- **Française**
  - Vous êtes **né(e) français(e)** ☐ 1
  - Vous êtes **devenu(e) français(e)** (par exemple : par naturalisation, par déclaration, à votre majorité) ☐ 2
    ↳ Indiquez votre nationalité à la naissance :
- **Étrangère** ☐ 3
  ↳ Indiquez votre nationalité :

4 Êtes-vous inscrit(e) dans un établissement d'enseignement pour l'année scolaire en cours ?
Y compris apprentissage ou études supérieures.
Oui ☐ 1 Non ☐ 2
↳ **Si oui, où est situé cet établissement d'enseignement ?**
- Dans la **commune où vous résidez** (ou dans le même arrondissement pour Paris, Lyon, Marseille) ☐ 1
- Dans une **autre commune** (ou un autre arrondissement) ☐ 2
  ↳ Indiquez cette autre commune :

commune (et arrondissement pour Paris, Lyon, Marseille) département n° DOM

5 Où habitiez-vous le 1er janvier 2004 ?
Les enfants nés après cette date ne sont pas concernés.
- Dans le **même établissement** que maintenant ☐ 1
- Dans un **autre logement** de la **même commune** (ou du même arrondissement pour Paris, Lyon, Marseille) ☐ 2
- Dans une **autre commune** (ou un autre arrondissement pour Paris, Lyon, Marseille) ☐ 3
  ↳ Indiquez cette autre commune :

commune (et arrondissement pour Paris, Lyon, Marseille)
département n° DOM pays pour l'étranger, territoire pour les TOM

6 La suite du questionnaire s'adresse aux personnes de 14 ans ou plus.

7 Vivez-vous en couple ? Oui ☐ 1 Non ☐ 2

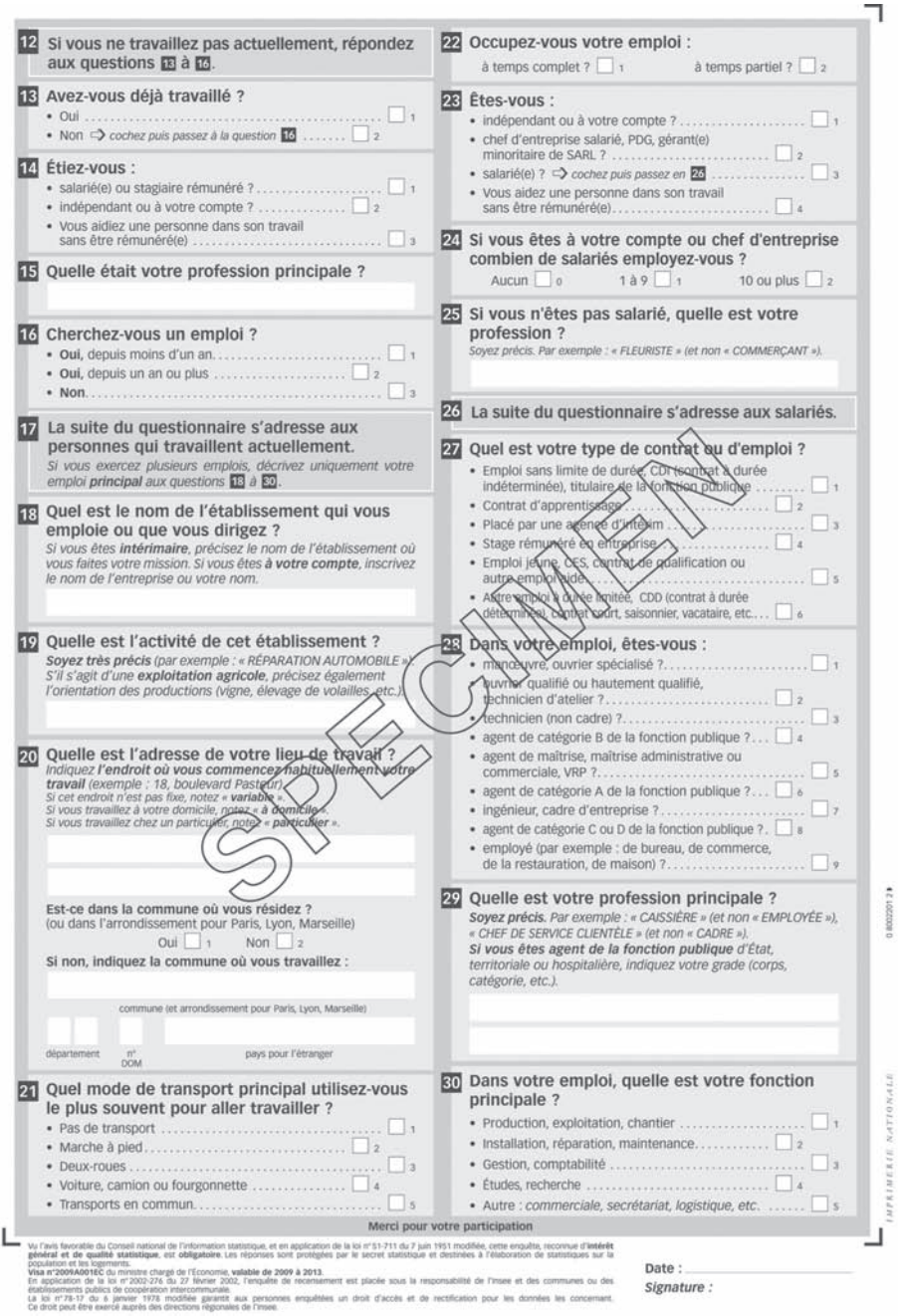
8 Quel est votre état matrimonial légal ?
- Célibataire *(jamais légalement marié(e))* ☐ 1
- Marié(e) *(ou séparé(e) mais non divorcé(e))* ☐ 2
- Veuf, veuve ☐ 3
- Divorcé(e) ☐ 4

9 Quel(s) diplôme(s) avez-vous ?
- Vous n'avez pas été scolarisé(e) ☐ 01
- Aucun diplôme mais scolarité jusqu'en école primaire ou au collège ☐ 02
- Aucun diplôme mais scolarité au-delà du collège ☐ 03
- CEP (certificat d'études primaires) ☐ 11
- BEPC, brevet élémentaire, brevet des collèges ☐ 12
- C.A.P., brevet de compagnon ☐ 13
- B.E.P. ☐ 14
- Baccalauréat général, brevet supérieur ☐ 15
- Baccalauréat technologique ou professionnel, brevet professionnel ou de technicien, B.E.A, B.E.C, B.E.I, B.E.H, capacité en droit ☐ 16
- Diplôme de 1er cycle universitaire, B.T.S, D.U.T, diplôme des professions sociales ou de la santé, d'infirmier(ère) ☐ 17
- Diplôme de 2e ou 3e cycle universitaire (y compris médecine, pharmacie, dentaire), diplôme d'ingénieur, d'une grande école, doctorat, etc. ☐ 18

10 Quelle est votre situation principale ?
*Ne cochez qu'**une seule case**.*
- **Emploi** (salarié ou à votre compte, y compris aide d'une personne dans son travail) ⇨ *cochez puis passez en* **17** ☐ 1
- **Apprentissage** sous contrat ou **stage rémunéré** ⇨ *cochez puis passez en* **17** ☐ 2
- **Études** (élève, étudiant) ou **stage non rémunéré** ☐ 3
- **Chômage** (inscrit ou non à l'ANPE) ☐ 4
- **Retraite** ou **préretraite** (ancien salarié ou ancien indépendant) ☐ 5
- **Femme ou homme au foyer** ☐ 6
- **Autre situation** ☐ 7

11 Travaillez-vous actuellement ?
Si vous avez un emploi occasionnel ou de très courte durée, ou si vous êtes en apprentissage ou en stage rémunéré, cochez « Oui ». Si vous êtes en congé maladie ou de maternité, cochez « Oui ».
- Oui ⇨ *cochez puis passez en* **17** ☐ 1
- Non ⇨ *cochez puis passez en* **12** ☐ 2

Continuez page suivante et n'oubliez pas de signer →



12 **Si vous ne travaillez pas actuellement, répondez aux questions 13 à 16.**

13 **Avez-vous déjà travaillé ?**
- Oui ☐ 1
- Non ⇨ *cochez puis passez à la question 16* ☐ 2

14 **Étiez-vous :**
- salarié(e) ou stagiaire rémunéré ? ☐ 1
- indépendant ou à votre compte ? ☐ 2
- Vous aidiez une personne dans son travail sans être rémunéré(e) ☐ 3

15 **Quelle était votre profession principale ?**

16 **Cherchez-vous un emploi ?**
- **Oui**, depuis moins d'un an. ☐ 1
- **Oui**, depuis un an ou plus ☐ 2
- **Non** ☐ 3

17 **La suite du questionnaire s'adresse aux personnes qui travaillent actuellement.**
Si vous exercez plusieurs emplois, décrivez uniquement votre emploi ***principal*** *aux questions 18 à 30.*

18 **Quel est le nom de l'établissement qui vous emploie ou que vous dirigez ?**
Si vous êtes ***intérimaire****, précisez le nom de l'établissement où vous faites votre mission. Si vous êtes* ***à votre compte****, inscrivez le nom de l'entreprise ou votre nom.*

19 **Quelle est l'activité de cet établissement ?**
Soyez très précis *(par exemple : « RÉPARATION AUTOMOBILE »). S'il s'agit d'une* ***exploitation agricole****, précisez également l'orientation des productions (vigne, élevage de volailles, etc.).*

20 **Quelle est l'adresse de votre lieu de travail ?**
Indiquez ***l'endroit où vous commencez habituellement votre travail*** *(exemple : 18, boulevard Pasteur).*
*Si cet endroit n'est pas fixe, notez « **variable** ».*
*Si vous travaillez à votre domicile, notez « **à domicile** ».*
*Si vous travaillez chez un particulier, notez « **particulier** ».*

Est-ce dans la commune où vous résidez ?
(ou dans l'arrondissement pour Paris, Lyon, Marseille)
Oui ☐ 1 Non ☐ 2

Si non, indiquez la commune où vous travaillez :

commune (et arrondissement pour Paris, Lyon, Marseille)

département | n° DOM | pays pour l'étranger

21 **Quel mode de transport principal utilisez-vous le plus souvent pour aller travailler ?**
- Pas de transport ☐ 1
- Marche à pied ☐ 2
- Deux-roues ☐ 3
- Voiture, camion ou fourgonnette ☐ 4
- Transports en commun ☐ 5

22 **Occupez-vous votre emploi :**
à temps complet ? ☐ 1 à temps partiel ? ☐ 2

23 **Êtes-vous :**
- indépendant ou à votre compte ? ☐ 1
- chef d'entreprise salarié, PDG, gérant(e) minoritaire de SARL ? ☐ 2
- salarié(e) ? ⇨ *cochez puis passez en 26* ☐ 3
- Vous aidez une personne dans son travail sans être rémunéré(e) ☐ 4

24 **Si vous êtes à votre compte ou chef d'entreprise combien de salariés employez-vous ?**
Aucun ☐ 0 1 à 9 ☐ 1 10 ou plus ☐ 2

25 **Si vous n'êtes pas salarié, quelle est votre profession ?**
Soyez précis. Par exemple : « FLEURISTE » (et non « COMMERÇANT »).

26 **La suite du questionnaire s'adresse aux salariés.**

27 **Quel est votre type de contrat ou d'emploi ?**
- Emploi sans limite de durée, CDI (contrat à durée indéterminée), titulaire de la fonction publique ☐ 1
- Contrat d'apprentissage ☐ 2
- Placé par une agence d'intérim ☐ 3
- Stage rémunéré en entreprise ☐ 4
- Emploi jeune, CES, contrat de qualification ou autre emploi aidé ☐ 5
- Autre emploi à durée limitée, CDD (contrat à durée déterminée), contrat court, saisonnier, vacataire, etc. ☐ 6

28 **Dans votre emploi, êtes-vous :**
- manœuvre, ouvrier spécialisé ? ☐ 1
- ouvrier qualifié ou hautement qualifié, technicien d'atelier ? ☐ 2
- technicien (non cadre) ? ☐ 3
- agent de catégorie B de la fonction publique ? ☐ 4
- agent de maîtrise, maîtrise administrative ou commerciale, VRP ? ☐ 5
- agent de catégorie A de la fonction publique ? ☐ 6
- ingénieur, cadre d'entreprise ? ☐ 7
- agent de catégorie C ou D de la fonction publique ? ☐ 8
- employé (par exemple : de bureau, de commerce, de la restauration, de maison) ? ☐ 9

29 **Quelle est votre profession principale ?**
Soyez précis*. Par exemple : « CAISSIÈRE » (et non « EMPLOYÉE »), « CHEF DE SERVICE CLIENTÈLE » (et non « CADRE »).*
Si vous êtes agent de la fonction publique *d'État, territoriale ou hospitalière, indiquez votre grade (corps, catégorie, etc.).*

30 **Dans votre emploi, quelle est votre fonction principale ?**
- Production, exploitation, chantier ☐ 1
- Installation, réparation, maintenance ☐ 2
- Gestion, comptabilité ☐ 3
- Études, recherche ☐ 4
- Autre : *commerciale, secrétariat, logistique, etc.* ☐ 5

Merci pour votre participation

Vu l'avis favorable du Conseil national de l'information statistique, et en application de la loi n° 51-711 du 7 juin 1951 modifiée, cette enquête, reconnue d'**intérêt général et de qualité statistique**, est **obligatoire**. Les réponses sont protégées par le secret statistique et destinées à l'élaboration de statistiques sur la population et les logements.
Visa n°2009A0016C du ministre chargé de l'Économie, **valable de 2009 à 2013**.
En application de la loi n° 2002-276 du 27 février 2002, l'enquête de recensement est placée sous la responsabilité de l'Insee et des communes ou des établissements publics de coopération intercommunale.
La loi n° 78-17 du 6 janvier 1978 modifiée garantit aux personnes enquêtées un droit d'accès et de rectification pour les données les concernant. Ce droit peut être exercé auprès des directions régionales de l'Insee.

Date :
Signature :

0 8022001 2 ▶

IMPRIMERIE NATIONALE

Appendix 3. Calculation of fertility indicators

Age-specific fertility rate for year *a*

$$f(x,a)=\frac{N(x,a)}{F(x,a)}$$

$N(x,a)$ is the number of children born in year a in the household of women of age x (age reached in the year), reported and matched to their mother;

$F(x,a)$ is the number of women of age x in year a in the annual census survey from year $a + 1$ to $a + 5$

To calculate first-order fertility rates, $f_1(x,a)$, the numerator contains first births only and the denominator is identical.

Total fertility rate (TFR)

This is the sum of age-specific fertility rates for the year. It shows the number of children a woman would have over her lifetime if the age-specific fertility rates of the year under consideration remained unchanged.

For the sum of first-order rates, only the mother's first births are considered.

Mean age at childbearing

The mean age weighted by the age-specific fertility rates:

$$M(a)=\frac{\sum(f(x,a)\cdot x)}{\sum f(x,a)}$$

Mean age at first birth:

$$M_1(a)=\frac{\sum(f_1(x,a)\cdot x)}{\sum f_1(x,a)}$$

Fertility rates by age and educational level for year *a*

$$\frac{N(x_{Edu},a)}{F(x_{Edu},a)}$$

$N(x_{Edu},a)$ is the number of children born in year a by mother's birth cohort and by educational level (reported in year $a + 1$ up to $a + 5$).

$F(x_{Edu},a)$ is the number of women of age x by educational level surveyed in years $a + 1$ up to $a + 5$.

Standardized fertility rates

The sum of age-specific rates is not always a very meaningful indicator of total fertility, as in the case, for example, of female immigrants whose fertility varies widely with the length of time since arrival in France. The age-specific rates are averaged to obtain an age-standardized mean rate expressed as the number of children per year for 100 women. This standardized rate is equal to the TFR divided by 35 (the number of years in a woman's reproductive life-span).

References

Bajos N., Ferrand M., 2006, "L'interruption volontaire de grossesse et la recomposition de la norme procréative", *Sociétés contemporaines*, 61, pp. 91-117.

Blondel B., Supernant K., Mazaubrun (de) C., Bréart G., 2005, *Enquête nationale périnatale 2003. Situation en 2003 et évolution depuis 1998*, Report drafted for DGS, Drees, and Inserm, February, 55 p.

Breton D., Prioux F., 2009, "Analyse de l'infécondité en France et en Allemagne : des lectures contrastées d'un phénomène de plus en plus fréquent ?", XXVI IUSSP International Population Conference, Marrakech, 27 September to 02 October, 21 p.

Breton D., Temporal, 2010, "Des enfants de plus en plus tard ? Territoires de résistances en outremer", Chaire Quetelet 2010, 24-26 November, Louvain-la-Neuve.

Brown E., Jaspard M., 1995, "La venue précoce du premier enfant : quelles conséquences sur les parcours de vie masculins et féminins ?", Congrès européen de démographie, Milan, 4-8 September, 16 p.

Chardon O., Vivas E., 2009, "Les familles recomposées : entre familles traditionnelles et familles monoparentales", Insee, Document de travail, F0904, 74 p.

Cicali D., De Santis G., 2002, "Estimating cohort fertility levels and differentials by socio-economic characteristics with the own-children method and pseudo-panels", *Genus*, 2, April-June, pp. 35-61.

Coeffic N., 1993, "L'enquête post-censitaire de 1990. Une mesure de l'exhaustivité du recensement", *Population*, 48(6), pp. 1655-1682.

Davie E., 2010, "La fécondité selon le diplôme", paper presented at the XV[e] Colloque national de démographie, *Fécondité : représentation, causalité, prospectives*, Strasbourg, 25-28 May, text available from authors.

Desplanques G.,1994, "Measuring fertility differentials from census information alone", *Population*, *An English Selection,* 6, pp. 23-34.

Desplanques G., 2005, "Pour une histoire des enquêtes Famille", in Lefèvre C., Filhon A. (eds.), *Histoires de familles, histoires familiales*, Ined, Cahier 156, chapter 1, pp. 15-27.

Desplanques G., 2008, "Strengths and uncertainties of the French annual census surveys", *Population*, *English Edition,* 63(3), pp. 415-440.

Halifax J., Villeneuve-Gokalp C., 2005, "Adoption in France: who are the adopted children and who are the adopters?", *Population and Societies*, 417, 4 p.

Kohler H.-P., Billari F. C., Ortega J. A., 2002, "The emergence of lowest-low fertility in Europe during the 1990s", *Population and Development Review*, 28(4), pp. 641-680.

Köppen K., Mazuy M., Toulemon L., 2007, "Kinderlosigkeit in Frankreich", in Konietza D., Kreyenfeld M. (eds.), *Ein Leben ohne Kinder. Kinderlosigkeit in Deutchland*, Wiesbaden, VS Verlag für Sozialwissenschaften, pp. 83-104.

Laïb N., 2007, "Les inégalités de niveau de vie des femmes en couple", *Études et résultats,* 560.

Lefèvre C., Filhon A. (eds.), 2005, *Histoires de familles, histoires familiales*, Ined, Cahier 156 ; 641 p.

Mainguené A., 2010, "Femmes et hommes en début de carrière : les femmes commencent à tirer profit de leur réussite scolaire", *Insee première*, 1284.

Mazuy M., 2009, "Avoir un enfant : être prêts ensemble", *Revue des sciences sociales*, 41, Université March Bloch, Strasbourg, pp. 30-41.

O'Hare W. P., 2009, "Why are young children missed so often in the census", Kids Count Working paper, December.

Pla A., Beaumel C., 2010, "Bilan démographique 2009. Deux pacs pour trois mariages", *Insee première,* 1276, 4 p.

Prioux F., 2003, "Recent demographic developments in France", *Population, English Eidition,* 58(4-5), pp. 525-558.

Prioux F., Mazuy M., 2009, "Recent demographic developments in France: tenth anniversary of the PACS civil partnership, and over a million contracting parties", *Population*, 64(3), pp. 393-442.

Rault W., Mazuy M., Rivière A., Toulemon L., 2010, "L'enquête Famille et logements (EFL) associée au recensement en 2011", paper presented at the 6e colloque francophone sur les sondages, session Recensements, Faculté des sciences juridiques, économiques et sociales, Tangiers, 23-25 March, text available on request from authors.

Robert-Bobée I., Mazuy M., 2005, "Calendriers de constitution des familles et âge de fin d'études", in Lefèvre C., Filhon A. (eds.), *Histoires de familles, histoires familiales*, INED, Cahier 156, chapter 8, pp. 175-200.

Temporal F., 2010, "Migrations et fécondité dans les Doms : tendances passées et perspectives", paper presented at the XVe colloque national de démographie, *Fécondité : représentation, causalité, prospectives*, 25-28 May, text available on request from author.

Toulemon L., 2004, "Fertility among immigrant women: new data, a new approach", *Population and Societies,* 400, 4 p.

Toulemon L., Pailhé A., Rossier C., 2008, "France: High and stable fertility", *Demographic Research*, 19(16), Special Collection 7: Childbearing Trends and Policies in Europe, pp. 503-556.

Toulemon L., Lapierre-Adamcyk É., 2000, "Demographic patterns of motherhood and fatherhood in France", in Bledsoe C., Lerner S., Guyer J. I. (eds.), *Fertility and the Male Life-Cycle in the Era of Fertility Decline*, New York, Oxford University Press, pp. 293-330.

Toulemon L., Mazuy M., 2005, "Mesurer la fécondité des immigrants : un indice tenant compte de l'âge à l'arrivée en France et de la durée de séjour", in Lefèvre C., Filhon A. (eds.), *Histoires de familles, histoires familiales*, Ined, Cahier 156, chapter 6, pp. 123-147.

Valente P., 2010, "Census taking in Europe: how are populations counted in 2010 ?", *Population and Societies*, 467, 4 p.

Emma Davie, Magali Mazuy • **Women's Fertility and Educational Level in France: Evidence from the Annual Census Surveys**

Using data from the French annual census surveys conducted between 2004 and 2009, this article applies the own-children method to analyse women's fertility with respect to their educational level over the period 2000-2008. About 2.5% of children cannot be matched to their mother, and a shortfall of very young children is observed in the census surveys. For this reason the age-specific fertility rates derived from these surveys are slightly lower than those based on birth records, notably at ages below 30. Fertility varies substantially with educational level. The move to later age at childbearing is observed for all women, particularly those with no qualifications. But the process of entry into motherhood differs between social groups: mean age at first birth according to the census surveys is 25 for the least educated women compared with 30 for those educated to degree level. The latter tend to concentrate their childbearing around age 31, whereas births among women with no qualifications are more spread out in time. Unqualified non native-born women have a higher fertility than their equivalents in the native-born population, whereas women educated to degree level have broadly similar fertility levels whether born in France or not. Finally, fertility of non native-born women contributes little – less than 0.1 child per woman – to overall fertility.

Emma Davie, Magali Mazuy • **Fécondité et niveau d'études des femmes en France à partir des enquêtes annuelles de recensement**

Cet article propose une analyse de la fécondité des femmes selon leur niveau de diplôme durant la période 2000-2008, à partir des données des enquêtes annuelles de recensement (EAR) réalisées de 2004 à 2009 en utilisant la méthode des enfants au foyer. Environ 2,5 % des enfants ne peuvent être rattachés à leur mère, et on observe un déficit d'enfants en très bas âge dans les EAR. Les taux de fécondité par âge issus de ces enquêtes sont de ce fait légèrement inférieurs à ceux de l'état civil, notamment avant 30 ans. La fécondité varie sensiblement avec le niveau d'instruction. Le recul de l'âge à l'accouchement s'observe pour toutes les femmes, et particulièrement pour les non-diplômées. Cependant, le processus d'entrée en parentalité est différent d'un milieu social à l'autre : l'âge moyen au premier enfant est de 25 ans pour les non-diplômées alors qu'il est de 30 ans pour les diplômées du supérieur d'après les EAR. Ces dernières concentrent davantage leur vie reproductive autour de 31 ans, alors que les non-diplômées ont une fécondité étalée sur un plus grand nombre d'années. La fécondité varie également selon le lieu de naissance, surtout pour les femmes les moins diplômées. Les non-natives sans diplôme ont une fécondité plus forte que les natives non-diplômées, alors que les niveaux de fécondité des femmes ayant suivi des études supérieures sont assez proches, qu'elles soient nées sur le territoire ou non. Enfin, la fécondité des non-natives participe peu au niveau de fécondité global : moins de 0,1 enfant par femme.

Emma Davie, Magali Mazuy • **Fecundidad y nivel de estudios de las mujeres en Francia a partir de las encuestas anuales del censo**

Este artículo propone un análisis de la fecundidad femenina según el nivel de diploma, durante el periodo 2000-2008, a partir de los datos de las encuestas anuales del censo de la población (EAC), realizadas de 2004 a 2009. El método utilizado es el de los hijos en el hogar. Alrededor de 2,5% de los niños no han podido ser afectados a sus madres, y se observa un déficit de los niños muy jóvenes. Las tasas de fecundidad calculadas a partir de estas encuestas son pues ligeramente inferiores a las provenientes del estado civil, en particular antes de los 30 años. La fecundidad varía sensiblemente con el nivel educativo. El alza de la edad al nacimiento se observa en todas las categorías y particularmente en las mujeres sin ningún diploma. En cambio, la llegada de la primera maternidad difiere claramente de una categoría a otra: la edad media al primer hijo es de 25 años en las mujeres no diplomadas mientras que alcanza 30 años en las diplomadas de la enseñanza superior; éstas últimas concentran su vida reproductiva alrededor de los 31 años, mientras que en las primeras la fecundidad se reparte sobre un mayor número de años. La fecundidad varía también según el lugar de nacimiento, sobre todo en las mujeres sin diploma. Entre éstas, las nacidas en el extranjero tienen una fecundidad más elevada que las nacidas en Francia, mientras que entre las mujeres con un diploma superior los niveles de fecundidad son bastante cercanos, tanto si han nacido en Francia como en el extranjero. En fin, la fecundidad de las mujeres nacidas en el extranjero contribuye poco al nivel global de la fecundidad en Francia: menos de 0,1 hijo por mujer.

Translated by Godfrey Rogers.