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Recent Demographic Trends in France: A European Outlier?

As it does each year, the journal *Population* publishes a special article on recent demographic developments in France. This detailed review uses the most recent data available to analyse the trends in migration, fertility and births, induced abortions, unions and dissolutions, and mortality. Among other developments, 2018 has confirmed the slowdown in France's population growth related to the decrease in births, partly due both to the decrease in fertility for the fourth consecutive year and to a historically high number of deaths stemming from population ageing. 'Recent Demographic Trends in France' features a common thread each year, analysing, for example in 2017, the differences between French departments (*départements*) and in 2018, seasonal patterns of demographic events. This year, we focus on comparisons with other European countries and show how France, the second most populated country in Europe behind Germany, is a demographic outlier among the 28 member states of the European Union (EU-28).

Overview

On 1 January 2019, the population of France was nearly 67 million (66.99 million). The annual increase was again smaller than that of the previous year but still driven mainly by an excess of births over deaths (rather than positive net migration). Natural growth nonetheless fell to its lowest level for 40 years. On 1 January 2018, France was the second most populated country in Europe—13.1% of the population of the 28 European Union

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countries, behind Germany with 16.2%—but also the youngest, even though the recent decline in births (82,000 fewer than in 2010) is shifting the age structure closer to that of the EU-28.

In 2017, 237,742 migrants entered France from third countries whose nationals must hold a residence permit to remain in France. This was the highest number since 2000 (+9% with respect to 2016 and +32% with respect to 2012). Most migrants were from Africa, although inflows from Asia are also increasing. More than half of incoming migrants from third countries are men. This reflects the growing share of inflows from Africa and Asia, in which men traditionally outnumber women. While a large share of residence permits are granted for family reasons (45.2%, down 3.8 points in 1 year), it was the share of permits granted for 'humanitarian' reasons (refugees, stateless persons, asylum seekers) that increased the most in 2017. At the European level, according to Eurostat statistics, France ranks fifth in Europe in numbers of entries (behind Germany, the United Kingdom, Italy, and Spain, the four most populated countries of the EU), but has one of Europe's lowest immigration rates (below 0.5%).

The annual number of registered births (759,000) fell for the fourth consecutive year in 2018 due to a decrease in the population of women of reproductive age, but also a decline in fertility. The total fertility rate was 1.87 children per women in 2018, and the mean age at childbearing increased yet again (30.6 years). There is no sign of a trend reversal in the first months of 2019, although the decline in birth numbers appears to be slowing. The fertility decline mainly concerns the 20–29 age group. The proportion of childless women is increasing at these ages, although we still cannot determine whether this is due to postponement of first births that will occur at later ages or to an increase in permanent childlessness in these cohorts. France is still the most fertile European country, and age at childbearing is quite young compared to other countries with relatively high fertility. Alongside Ireland, France is the only country where the cohorts born in the 1980s will reach replacement levels of fertility (2.1 children per woman).

The number of induced abortions increased in 2018 (224,300 vs. 217,800 in 2017) but remained below the levels of 2013 and 2014. The increase in abortions has raised the total abortion rate. It now stands at 0.56 abortions per woman. France is one of the European countries where abortion rates are highest; this is probably linked to its high level of fertility. Since 2016, midwives have been authorized to perform abortions under certain conditions, making it easier for women to access abortion services. This new legislation reflects the growing trend towards non-hospital procedures, for medical abortions especially.

PACS unions (*pacte civil de solidarité* [civil solidarity pact]) increased in 2017, as did marriages but much more slowly. As a result, the difference

between the number of marriages (233,915) and PACS unions (193,950) reached a historically low level. Overall, 3.1% of marriages and 3.8% of PACS unions are between same-sex partners. These percentages are among the highest in Europe. The mean age at entry into a PACS union was stable in 2017, remaining below the age at marriage, which continued to increase. Marriages and PACS unions are partly linked because a non-negligible share of marriages is between partners already in a PACS. Analysis of PACS statistics shows that this share is higher for same-sex couples (more than 1 in 3 in 2016) than for different-sex couples (almost 1 marriage in 6). The recorded number of divorces fell sharply in 2017, contrary to expectation, following the entry into force of new legislation that allows couples to divorce without going through the courts. In reality, this decrease results in a statistical problem due to failures to submit information on divorces by mutual consent registered by notaries. As this problem does not affect PACS dissolution statistics, we were able to calculate a new longitudinal indicator of PACS dissolutions. More than half of the PACS unions registered in 2007 were dissolved before their 10th anniversary, by mutual consent in most cases, but also not infrequently by marriage (15% to 20%). PACS unions between two women are dissolved most frequently, especially when the partners are young. Marriages in France occur later and are less frequent than in the rest of Europe. The existence of the PACS union as an alternative to marriage for all couples, a singularity in Europe (only the Netherlands has a similar type of contract), may partly explain the low propensity to marry in France.

In 2018, 614,000 deaths were registered in France, a record since the Second World War. The uptrend in deaths is explained mainly by population ageing and the large post-war baby-boom cohorts now reaching advanced ages. This trend is set to continue. While life expectancy is still increasing (reaching 79.4 years for males and 85.3 years for females), annual gains are becoming much smaller, mainly due to a slowdown in mortality decline before age 45. Over the long term, life expectancy gains are larger for males, and the gender gap is progressively narrowing. Female life expectancy in France was the highest in Europe in 2017, but the situation is less favourable for males (ninth position). For both sexes combined, France is among the countries with the lowest mortality levels in Europe. This situation is linked to several factors, including high survival rates at advanced ages thanks in part to lower cardiovascular mortality than in most other European countries. France is one of the rare countries in the world where cardiovascular diseases are not the leading cause of death (cancer has ranked first since 1990). Mortality before age 65, on the other hand, including child mortality, is relatively high. Infant mortality stands at 3.9 per 1,000 versus 2.0 or 2.5 per 1,000 in the Scandinavian countries. Progress in reducing premature mortality should bring France into line with its European neighbours and produce significant progress in life expectancy at birth.

I. General trends and population age structure

1. Europe's highest rate of natural growth

On 1 January 2019, the population of France was almost 67 million (66,992,699), including 2.18 million in the overseas departments and regions (Papon and Beaumel, 2019). In 2018, the population of France increased slowly, by 3.1 per 1,000 overall and by just 2.8 per 1,000 in metropolitan France (mainland France and Corsica) (Appendix Table A.1).[1] Natural growth still accounts for a large share of population increase, although the difference between numbers of births and deaths fell again in 2018 and is now below 150,000. This historic low is the result of a decrease in births and an increase in deaths that stem from age-structure effects (population ageing and fewer women of childbearing age) and a change in demographic behaviour (notably fertility decline).

France is the second most populated country of the EU, behind Germany (83 million) and ahead of the United Kingdom (since 1986 only) (Table 1). On 1 January 2019, France accounted for 13.1% of the population of the 28 European Union countries and 15% if we exclude the United Kingdom. The four most populated countries (Germany, France, United Kingdom, and Italy) are home to 54% of the EU-28 population in 2019, and the top seven account for three-quarters of the total. France has Europe's highest level of natural growth in absolute terms and ranks among European leaders in relative terms, after Ireland, Cyprus, Luxembourg, and Sweden (Table 1). France is an outlier in this respect, as natural growth in 2018 was negative in most EU-28 countries, notably in Eastern Europe and the Baltic countries (Fihel and Okólski, 2019).

The contribution of migration to French population growth is difficult to interpret. Since 2015, the National Institute for Statistics and Economic Studies (Institut national de la statistique et des études économiques [INSEE]) has had to adjust the net migration figures each year. In 2018, estimated net migration was +58,000, but this figure was corrected by –100,000 to achieve consistency with the population estimates for 1 January based on census data (Papon and Beaumel, 2019). This makes European comparisons difficult. According to the indicators published by Eurostat, French adjusted net migration is negative, and France is the European country with the second lowest absolute level of net migration (Table 1).[2]

(1) These rates are not adjusted for migration (see note 2). After adjustment, the mean annual increase is just 1.5 per 1,000 for the whole of France and 1.3 per 1,000 for metropolitan France. These are the rates published by Eurostat and reported in Table 18.

(2) These adjustments were made after the questions in the census dwelling form were modified to facilitate the identification of individuals with more than one residence and thus avoid double counts. As of the 2019 annual census survey, they will no longer be necessary.

Table 1. Population size, natural growth, and net migration, EU-28 countries

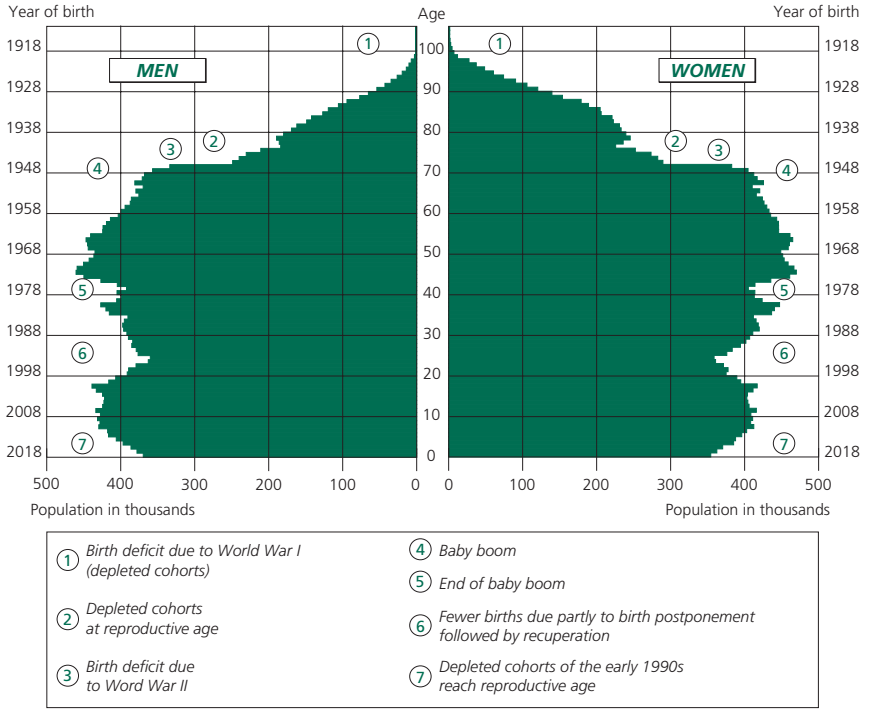
Country	Population on 1 January 2019		Natural increase		Net migration	
	Number (millions)	Growth 2018–2019 (per 1,000)	Total (thousands)	Rate (per 1,000)	Total (thousands)	Rate (per 1,000)
Germany	**83.0**	2.7	*–167.4*	–2.0	**394.2**	4.8
France	**67.0**	1.5	**144.5**	**2.2**	*–42.6**	*–0.6*
United Kingdom	**66.6**	5.6	**115.2**	**1.7**	**258.3**	3.9
Italy	**60.4**	*–2.1*	*–193.4*	*–3.2*	**69.0**	1.1
Spain	**46.9**	5.9	*–56.3*	–1.2	**332.4**	7.1
Poland	**38.0**	–0.1	–26.0	–0.7	22.1	*0.6*
Romania	**19.4**	*–6.6*	*–75.3*	*–3.9*	*–53.7*	*–2.8*
Netherlands	17.3	5.9	**14.7**	0.9	**86.4**	5.0
Belgium	11.5	**6.1**	**7.6**	0.7	**61.7**	5.4
Greece	10.7	*–1.8*	*–33.9*	*–3.2*	15.0	1.4
Czech Republic	10.6	3.7	1.1	0.1	38.6	3.6
Portugal	10.3	–1.4	–26.0	–2.5	11.6	1.1
Sweden	10.2	**10.8**	**23.6**	**2.3**	**86.3**	**8.5**
Hungary	9.8	–0.6	*–37.8*	*–3.9*	32.2	3.3
Austria	8.9	4.1	1.6	0.2	34.9	4.0
Bulgaria	7.0	*–7.1*	*–46.3*	*–6.6*	*–3.7*	*–0.5*
Denmark	5.8	4.3	**6.2**	1.1	18.6	3.2
Finland	5.5	0.9	–7.0	–1.3	11.7	2.1
Slovakia	5.5	1.3	3.3	0.6	*4.0*	0.7
Ireland	4.9	**15.2**	**29.9**	**6.1**	**44.0**	**9.0**
Croatia	4.1	*–7.1*	–15.8	*–3.9*	*–13.5*	*–3.3*
Lithuania	*2.8*	*–5.3*	–11.4	*–4.1*	*–3.3*	*–1.2*
Slovenia	*2.1*	**6.8**	–0.9	–0.4	14.9	**7.2**
Latvia	*1.9*	*–7.5*	–9.5	*–4.9*	*–4.9*	*–2.5*
Estonia	*1.3*	4.3	–1.4	–1.0	7.1	5.3
Cyprus	*0.9*	**13.4**	3.6	**4.1**	8.1	**9.3**
Luxembourg	*0.6*	**19.6**	2.0	**3.2**	9.9	**16.3**
Malta	*0.5*	**36.8**	0.8	**1.6**	17.1	**35.3**
EU-28	**513.5**	**2.1**	**–354.2**	**–0.7**	**1,456.7**	**2.8**

* Net migration published by Eurostat, which does not take into account INSEE's correction (+100,000).
Interpretation: The seven countries with the highest figures in each column are in bold, and the seven with the lowest are in italics. The countries are listed in decreasing order of population size in mid-2018.
Coverage: EU-28.
Sources: Eurostat, authors' calculations.

2. The base of the population pyramid continues to narrow

For the last 8 years, the number of births has been decreasing. In metropolitan France, 82,000 fewer children were born in 2018 than in 2010 (–10%), and the base of the population pyramid has narrowed as a result. This decrease is due to lower fertility and, above all, to an age-structure effect (fewer potential mothers). The narrowing base of the pyramid corresponds to the drop in numbers of women born between 1986 and 1994 (points 6 and 7 in Figure 1). Births in 2018

Figure 1. Population pyramid of France on 1 January 2019 (numbers)



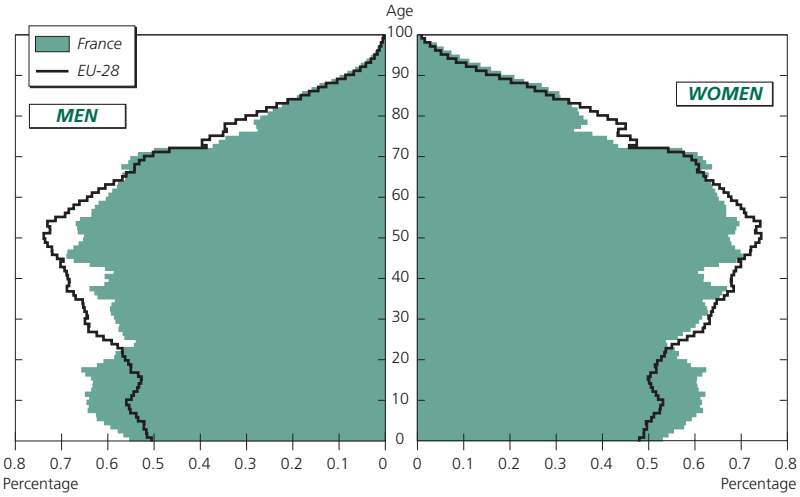
Coverage: Whole of France (including Mayotte).
Source: INSEE.

for the whole of France (760,000) were almost equivalent to that in 1993 (741,000), the year with the lowest recorded number since 1946 (Festy, 1995).(3)

While the base of the French population pyramid is much wider than that of EU-28 (Figure 2), the difference is much smaller than it was in the early 2010s (Prioux and Barbieri, 2012). The shapes of the French and European pyramids differ because the French share of the European population varies by age (Figure 3). More than 1 in 6 Europeans under age 18 live in France (15%), but only 1 in 10 of those aged 75–79, born during the Second World War. German and Italian populations, on the one hand, and that of the French and UK populations, on the other, present differences in the timing and speed of fertility decline (Sauvy and Ledermann, 1946; Pison, 2012). The contribution of Italy, with the fourth largest EU-28 population, has been declining steadily; the Italian cohorts aged 0–5 now account for less than 10% of the European population at these ages.

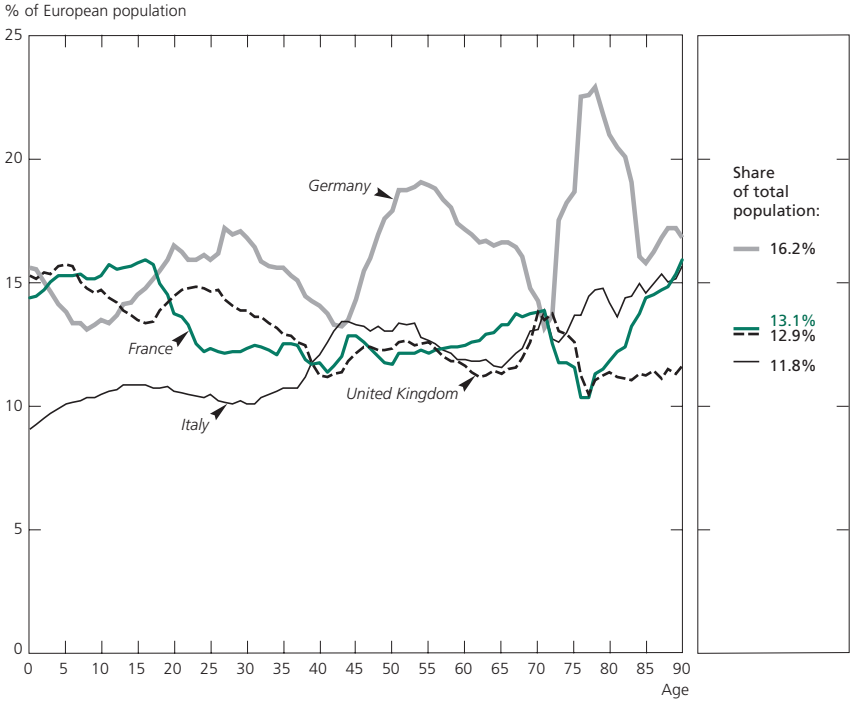
(3) It is difficult to measure trends for the whole of France because vital registration data for Mayotte were not published by INSEE before 2014. But as birth numbers have been increasing rapidly in French Guiana and Mayotte, the estimated decline between 2010 and 2018 is smaller when the overseas departments and regions are included.

Figure 2. Population pyramid of EU-28 and France on 1 January 2018 (per 100 inhabitants)



Coverage: Whole of France (including Mayotte) and EU-28.
Sources: Eurostat, authors' calculations.

Figure 3. Share of the inhabitants of Europe's four most populated countries in the EU-28 population by age in 2018



Coverage: Whole of France (including Mayotte) and other countries.
Sources: Eurostat, authors' calculations.

3. Fewer men than women above age 25

With 93.6 males per 100 females, the sex ratio (proportion of males to females) in France is among the lowest in Europe, well below the European average (95.7) but above the very low levels observed in the Baltic countries (Table 2). These countries' populations are declining rapidly due to mass emigration (Breton et al., 2018; Fihel and Okólski, 2019), of men especially. This might explain the positive correlation between the sex ratio in 2018 and the population increase between 1998 and 2018 ($r^2 = 0.63$ / $p < 0.01$).

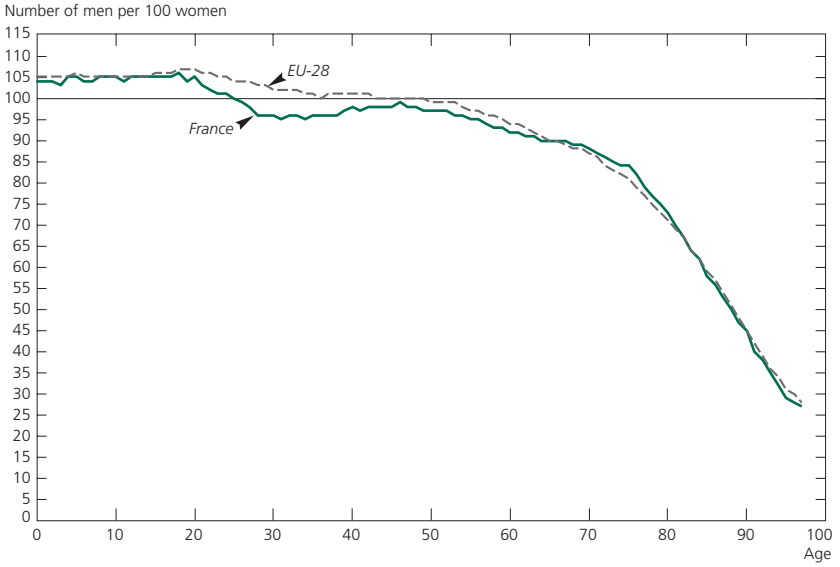
Table 2. Structural characteristics of the EU-28 populations in 2008 and 2018

Country	Mid-year population (millions)			Median age		Proportion aged 65+		Sex ratio	
	2008	2018	Increase (%)	2008	2018	2008	2018	2008	2018
Germany	**82.1**	**82.9**	1.0	**43.2**	**46.0**	**20.1**	**21.4**	96.1	97.4
France	**64.2**	*67.0*	4.4	39.3	41.6	16.4	19.7	93.8	**93.6**
United Kingdom	**61.8**	*66.5*	**7.5**	*39.1*	*40.1*	15.9	*18.2*	96.1	97.5
Italy	**58.8**	**60.4**	2.7	**42.7**	**46.3**	**20.2**	**22.6**	94.0	94.8
Spain	**46.0**	46.8	1.8	39.2	43.6	16.4	19.2	97.8	96.2
Poland	**38.1**	*38.0*	–0.4	*37.3*	*40.6*	*13.5*	*17.1*	**93.5**	93.8
Romania	**20.5**	19.5	*–5.2*	*38.7*	42.1	15.4	*18.2*	95.0	95.8
Netherlands	16.4	17.2	4.8	40.0	42.6	14.7	18.9	*97.8*	*98.5*
Greece	11.1	10.7	*–3.1*	40.3	**44.6**	**18.7**	**21.8**	97.1	94.2
Belgium	10.7	11.4	**6.8**	40.7	41.6	17.1	18.7	96.0	97.1
Portugal	10.6	10.3	*–2.6*	*40.4*	44.8	17.7	21.5	**92.4**	**89.8**
Czech Republic	10.4	10.6	2.4	39.3	42.3	*14.6*	19.2	96.0	96.8
Hungary	10.0	9.8	*–2.6*	39.4	42.6	16.2	18.9	**90.4**	**91.5**
Sweden	9.2	10.2	**10.4**	40.6	40.6	17.5	19.8	*98.8*	*100.9*
Austria	8.3	8.8	6.2	**40.9**	43.2	17.1	18.7	94.8	96.8
Bulgaria	7.5	7.0	*–6.2*	**41.9**	**44.1**	**17.8**	**21.0**	94.9	94.3
Denmark	5.5	5.8	5.5	40.2	41.8	15.6	19.3	*98.1*	*99.0*
Slovakia	5.4	5.4	1.3	*36.3*	*40.2*	*12.1*	*15.5*	94.6	95.3
Finland	5.3	5.5	3.8	**41.5**	42.7	16.5	**21.4**	96.1	97.3
Ireland	4.5	4.9	**8.4**	*33.4*	*37.3*	*10.8*	*13.8*	*99.8*	*98.1*
Croatia	4.3	4.1	*–5.1*	**41.5**	43.7	**17.8**	**20.1**	**92.9**	**93.3**
Lithuania	*3.2*	*2.8*	*–12.4*	39.6	43.9	17.0	19.6	**86.2**	**85.8**
Latvia	*2.2*	*1.9*	*–11.5*	39.9	43.3	17.6	20.1	**85.0**	**85.2**
Slovenia	*2.0*	*2.1*	2.6	**41.0**	**43.8**	16.3	19.4	96.3	98.8
Estonia	*1.3*	*1.3*	–1.1	39.8	42.0	17.5	19.6	**86.8**	**89.0**
Cyprus	*0.8*	*0.9*	**10.6**	*35.4*	*37.5*	*12.4*	*15.9*	96.1	95.2
Luxembourg	*0.5*	*0.6*	**24.4**	*38.6*	*39.4*	*14.0*	*14.3*	*98.1*	*101.0*
Malta	*0.4*	*0.5*	**18.4**	39.3	40.4	13.9	18.8	*98.8*	*102.4*
EU-28	**501.2**	**512.9**	**4.1%**	**40.4**	**43.1**	**17.1**	**19.7**	**95.2**	**95.7**

Interpretation: The seven countries with the highest figures in each column are in bold, and the seven with the lowest are in italics. The countries are listed in decreasing order of population size in mid-2018.
Coverage: EU-28.
Sources: Eurostat, authors' calculations.

In both France and Europe, the sex ratio varies by age (Figure 4). It is close to 105 in infancy because more boys than girls are born, reaches equilibrium at around age 45, and then falls steadily to a level well below 100 beyond age 70 due to excess male mortality at advanced ages. The imbalance at intermediate ages (more women at ages 25–39) observed in France (but not in Europe as a whole) is more difficult to interpret. Portugal and Ireland are the only other countries that follow this pattern. What is the reason for the 'female surplus' at these ages? In demographic terms, it might be explained by excess male mortality and/or sex-selective migration (Brutel, 2014; Wisser and Vaupel, 2014; Góis and Marques, 2018), which are specific to certain countries. Another explanation might be that more young men are omitted from the censuses, notably during periods of residential instability after leaving the parental home or separating from a partner (Toulemon, 2017). This phenomenon has been observed in several European countries (Smallwood and De Broe, 2009).

Figure 4. Sex ratios by age in France and in EU-28 on 1 January 2018



Coverage: Whole of France (including Mayotte) and EU-28.
Sources: Eurostat, authors' calculations.

4. One in five people aged 65 or above on 1 January 2019

The French population is continuing to age; one-quarter of the population was aged over 60 on 1 January 2019. The proportion of over-60s is now 2.0 percentage points higher than that of the under-20s (2.6 points in metropolitan France) (Appendix Table A.2). Nonetheless, France is still a relatively young country (9th youngest in Europe), with a median age of 41.6 years on 1 January 2018, up from 39.3 years 10 years earlier (same European ranking) (Table 2). Measured in terms of median age, the population is ageing much

faster in countries such as Spain (which has fallen from 8th to 20th place), Greece (18th to 20th place), and Lithuania (13th to 23rd place). The two countries at the extremes in 2018 are Ireland (37.3 years) and Italy (46.3 years), now the oldest country in Europe, ahead of Germany (46.0 years).

II. Immigration from third countries

This section describes recent trends in immigration from so-called 'third countries' whose adult nationals must obtain a residence permit to live in France.[4] It does not concern inflows from the countries of the European Economic Area (EEA)[5] and Switzerland. To ensure consistency of comparisons over time, the statistics are established for constant geographical areas. We do not count people of nationalities formerly required to hold a residence permit but are now exempted.[6]

Flows of third-country nationals arriving legally in France to establish residence in the country are estimated here from the statistics on long-term residence permits and visas valid as residence permits. They are based on data from the system used by the French Ministry of the Interior to track the status of foreigners residing in France (AGDREF) and which are transmitted annually to INED. The method developed by d'Albis and Boubtane (2015) is used to construct these flows. It applies the basic principle whereby people are counted in the flows of the year they receive their first residence permit valid for 1 year or more.[7] This is generally the same as the year of entry, although in some cases it may be later (notably because the person previously held a more short-term residence permit). It is thus the entry into permanent migrant status—i.e. long-term legal residence—that is measured, rather than physical entry into France. The inflows considered here cover the entire French territory, although large disparities are known to exist across French departments (Breton et al., 2017; d'Albis and Boubtane, 2018b).

1. An upward trend in inflows

Table 3 shows inflow data for the years 2012 to 2017. In 2017, 237,742 people received a residence permit, the highest number since 2000 (Appendix Table A.3). Inflows in 2016 were 9% higher than in 2016 and 32% higher than in 2012.

(4) Immigrants are defined as persons born outside France to non-French parents, whether or not they subsequently acquire French nationality.

(5) Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

(6) The nationalities considered may vary from one demographic report to the next in response to legislative changes in rights of residence. Appendix Table A.3 takes account of changes in scope.

(7) The Ministry of the Interior also publishes a complementary series of migration flow statistics based on a count of all first residence permits issued to adults. Its scope is different in that it includes residence permits valid for less than 1 year which will not necessarily be renewed by a longer-term permit. It thus includes cases of temporary migration.

Table 3. Inflows of third-country nationals by first year of validity and period of validity of first residence permit of 1 year or more

Period of permit validity	2012	2013	2014	2015	2016	2017
Less than 10 years	159,077	173,058	178,677	187,626	193,163	208,773
10 years or more	20,934	19,338	21,210	22,414	25,191	28,969
Total	180,011	192,396	199,887	210,040	218,354	237,742

Coverage: Permits granted in France and abroad to foreign nationals excluding citizens of the European Economic Area and Switzerland (constant geographical area from 2012 to 2017). Permits granted in year *n* and recorded in the data extracted in July of the year *n* + 2. Permits of less than 10 years are valid for between 364 and 3,649 days; permits of 10 years or more are valid for more than 3,649 days.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Among the individuals counted, the share of immigrants receiving a residence permit valid for 10 years or more remains low, at slightly above 12% in 2017. These long-term residence permits, typically a resident's card, are generally granted after one or more permits of less than 10 years.

Inflows of foreigners can also be estimated using other statistical sources. INSEE uses population censuses and notably a question on the previous place of residence. According to Eurostat, which disseminates INSEE data, 241,991 foreign nationals entered France in 2017.(8) This total also includes nationalities not required to hold a residence permit (i.e. EEA countries and Switzerland) and, potentially, undocumented third-country immigrants. Applying the same geographical scope as that of Table 3 brings the total down to 163,235, a figure well below that obtained from the AGDREF database. The Eurostat underestimation is difficult to explain because no information is available on the method used to construct the series. Students may have been excluded, even if they stay in France for more than a year.

2. Women no longer account for the majority of incoming foreigners

Recent immigrants are young. People aged 18–34 accounted for 64.5% of all arrivals and 71.9% of adult arrivals in 2017 (Table 4). The share of minors is stable at 10.3%. Only minors receiving a residence permit are counted.(9)

Table 4. Distribution (%) of inflows by age group, by first year of validity of first residence permit of 1 year or more

Age group	2012	2013	2014	2015	2016	2017
0–17 years	9.7	9.5	10.3	10.2	10.3	10.3
18–34 years	64.4	62.8	62.2	62.5	63.1	64.5
35–64 years	24.4	26.2	25.7	25.5	24.9	23.7
65+ years	1.5	1.5	1.7	1.7	1.8	1.6

Coverage: See Table 3.
Source: Authors' calculations based on AGDREF data transmitted to INED.

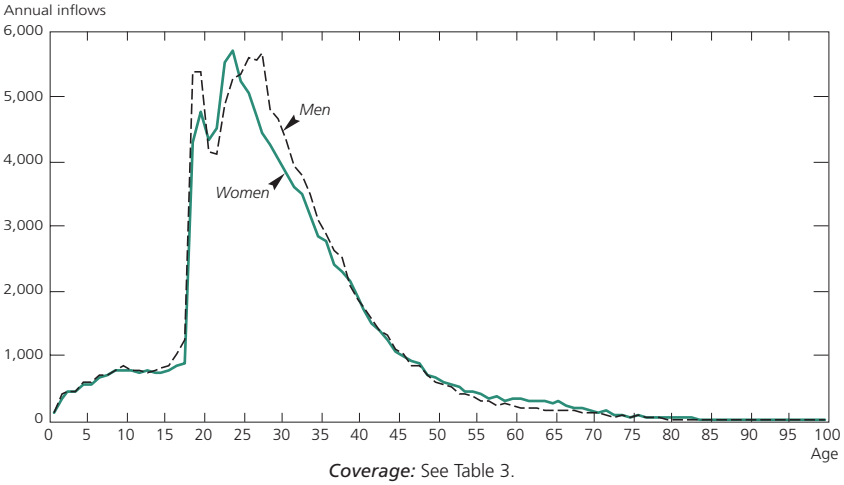
(8) Eurostat data are available online (http://ec.europa.eu/eurostat/en/data/database).

(9) This permit, called a *document de circulation pour étranger mineur* (travel document for a foreign national who is a minor), was instituted by a decree published on 24 December 1991.

Foreign minors do not have to hold a residence permit but may need to obtain one if, for example, they wish to travel outside France. Minors born in France to foreign parents are not counted in the inflows. The first row of Table 4 thus only includes minors born abroad who hold a residence permit.

Figure 5 gives a more detailed representation of the age-sex distribution of flows in 2017. The peak at age 18 is explained by individuals who arrived as minors and who waited until age 18 to apply for a residence permit. Students also contribute to the large share of young people in the distribution. The distributions of women and men are similar overall, although the male distribution is more markedly bimodal. The mean age at entry into France is 29.1 years for women and 28.4 years for men.

Figure 5. Distribution of inflows by age and sex in 2017



Coverage: See Table 3.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Most incoming migrants (excluding those from the EEA and Switzerland) are African nationals. They accounted for 58.4% of the total in 2017, the highest percentage since 2012 (Table 5). The share of arrivals from Asia continued to increase slightly in 2017, while that of arrivals from Africa and America decreased.

Table 5. Distribution (%) of inflows by continent of origin, by first year of validity of first residence permit of 1 year or more

Continent of origin	2012	2013	2014	2015	2016	2017
Africa	57.0	57.0	58.0	58.2	57.8	58.4
America	11.5	10.8	10.5	10.4	9.4	8.9
Asia	24.5	25.3	24.5	24.4	25.6	25.8
Europe	6.3	6.2	6.3	6.3	6.7	6.3
Oceania	0.4	0.4	0.4	0.4	0.4	0.4

Coverage: See Table 3. Turkey is included in Asia. Europe includes all European countries outside the EEA and Switzerland. The total does not necessarily sum to 100 due to rounding and missing values.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Women no longer account for the majority of inflows, and they represented only 48.9% of total entries in 2017. This is a sharp drop from the peak reached in 2014 (Table 6). In 2017, there were fewer women than men among inflows from Africa and Asia. They formed a majority among inflows from all other continents, however, especially from the Americas and Europe.

Table 6. Share of women (%) in inflows by continent of origin, by first year of validity of the first residence permit of 1 year or more

Continent of origin	2012	2013	2014	2015	2016	2017
Africa	49.0	49.2	49.9	49.3	48.3	46.7
America	58.3	58.3	57.7	56.7	57.3	58.1
Asia	54.7	54.1	53.8	53.0	51.3	48.5
Europe	60.4	60.4	60.2	60.0	58.6	58.1
Oceania	52.4	55.4	50.1	52.7	53.5	54.8
Overall	52.2	52.2	52.3	51.6	50.6	48.9

Coverage: See Tables 3 and 5.
Source: Authors' calculations based on AGDREF data transmitted to INED.

3. A sharp decrease in the share of admissions for family reasons

In 2017, 107,405 people were admitted to France for family reasons[10]—still the main reason for admission. In absolute terms, the level is equivalent to that of 2013, but the relative contribution of these admissions to total inflows has fallen sharply since then. They represented 45.2% of inflows in 2017, a share that dropped almost 4 percentage points in 1 year, while the shares of admissions for educational (26.8%), humanitarian (15.2%), and employment-related reasons (8.8%) increased (Table 7). Admissions for humanitarian reasons mainly concern two types of immigrants: foreigners who are ill (3,898 people in 2017) or admitted as refugees, stateless persons, or beneficiaries of territorial asylum or subsidiary protection (32,111 people).[11] After increasing by more than 40% in 2016, the number of residence permits granted for this second set of reasons rose again by almost 50% in 2017. This reflects the increase in asylum applications received since 2014 (d'Albis and Boubtane, 2018a). Among people admitted for employment-related reasons (20,967 in 2017), almost 67% are wage employees or self-employed. The remainder are seasonal or temporary workers, scientists, and artists.

The decrease in the share of women entering France in 2017 mainly concerns those entering for humanitarian reasons. In 2017, women represented 36.8% of inflows for this reason, compared with 41.3% the previous year (Table 8). Women are still over-represented among immigrants admitted for family reasons and under-represented among those admitted for humanitarian and, above all, employment reasons. Among students, women are slightly outnumbered by men.

(10) Foreign minors with a residency permit are included in this category.

(11) Admissions for humanitarian reasons only include people whose asylum application has been processed and approved, so this figure does not include all asylum seekers.

Table 7. Distribution (%) of inflows by reason for granting first residence permit valid for 1 year or more, by first year of permit validity

Reason for admission	2012	2013	2014	2015	2016	2017
Family	55.5	56.1	55.0	52.7	49.0	45.2
Education	23.8	24.0	23.8	25.3	25.9	26.8
Humanitarian	9.7	8.9	9.9	10.2	12.7	15.2
including refugee	*6.1*	*5.6*	*6.4*	*7.2*	*9.8*	*13.5*
Employment	6.6	6.7	7.2	7.7	8.1	8.8
Various and unspecified	4.5	4.4	4.2	4.2	4.3	4.0

Coverage: See Table 3. The 'refugee' line covers permits granted on the following grounds: 'refugee and stateless, territorial asylum and subsidiary protection'.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Table 8. Share of women (%) in inflows by reason for granting first residence permit valid for 1 year or more, by first year of permit validity

Reason for admission	2012	2013	2014	2015	2016	2017
Family	57.3	57.1	58.3	58.1	58.0	58.5
Education	51.1	50.4	50.0	49.0	49.4	48.1
Humanitarian	43.5	44.1	44.8	44.6	41.3	36.8
Employment	23.5	24.9	23.1	24.8	23.6	24.2
Overall	52.2	52.2	52.3	51.6	50.6	48.9

Coverage: See Table 3.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Reasons for admission are distributed differently from one continent of origin to another (Table 9), with family reasons still taking first place for immigrants from all continents. Admissions for this reason are over-represented among Africans (51% of permits in 2017 compared with 45.2% on average) and Europeans (51.6%), and under-represented among Asians (30.8%). Educational reasons are over-represented among Asians (28.2% vs. 26.8% on average) and Americans (30.4%) and under-represented among Europeans (11.1%). Humanitarian reasons account for a large share of permits granted to Asians and to Europeans (25.3% vs. 15.2% on average) mainly nationals from Russia, Kosovo, and Albania. The share is very small among Americans (3.5%), for whom employment-related reasons are over-represented (12.8% vs. 8.8% on average).

Among migrants from Africa, the share of admissions for family reasons in 2017 continued to decrease in favour of other reasons. Among migrants from America, the ongoing decrease in admissions for family reasons is counterbalanced by an increase in admissions for education and employment reasons. Since 2013, the share of Asians migrating to France for family and educational reasons has fallen in favour of humanitarian reasons, due notably to the war in Syria. Last, since 2013, European migration has increased for humanitarian reasons while falling for educational and family reasons.

Table 9. Distribution of inflows by reason for granting first residence permit valid for 1 year or more, continent of origin, and first year of permit validity (numbers and percentages)

Continent of origin and reason for admission	2012	2013	2014	2015	2016	2017
Africa						
Family	66,486	70,654	73,586	74,871	70,746	70,912
Education	19,810	22,067	23,416	27,858	31,321	38,288
Humanitarian	8,017	8,081	9,275	9,115	12,210	15,373
Employment	4,996	5,608	6,405	6,919	8,096	10,236
Africa (%)						
Family	64.8	64.4	63.5	61.2	56.1	51.0
Education	19.3	20.1	20.2	22.8	24.8	27.6
Humanitarian	7.8	7.4	8.0	7.5	9.7	11.1
Employment	4.9	5.1	5.5	5.7	6.4	7.4
America						
Family	9,914	10,175	10,367	10,017	9,327	9,348
Education	5,920	5,933	6,062	6,504	6,113	6,427
Humanitarian	591	493	425	419	452	736
Employment	2,190	2,138	2,193	2,921	2,513	2,716
America (%)						
Family	48.0	49.1	49.4	45.9	45.6	44.2
Education	28.7	28.6	28.9	29.8	29.9	30.4
Humanitarian	2.9	2.4	2.0	1.9	2.2	3.5
Employment	10.6	10.3	10.5	13.4	12.3	12.8
Asia						
Family	17,200	19,860	18,539	18,129	18,679	18,855
Education	15,226	16,304	16,321	16,834	17,261	17,291
Humanitarian	5,828	6,077	7,183	8,799	11,268	16,038
Employment	3,616	4,140	4,682	5,241	6,050	6,803
Asia (%)						
Family	39.0	40.7	37.8	35.3	33.4	30.8
Education	34.6	33.4	33.3	32.8	30.9	28.2
Humanitarian	13.2	12.5	14.6	17.2	20.2	26.2
Employment	8.2	8.5	9.5	10.2	10.8	11.1
Europe						
Family	5,761	6,602	6,747	7,095	7,603	7,752
Education	1,682	1,657	1,627	1,743	1,685	1,674
Humanitarian	2,705	2,205	2,668	2,830	3,631	3,804
Employment	761	865	801	856	888	966
Europe (%)						
Family	50.5	55.3	53.8	53.5	52.3	51.6
Education	14.7	13.9	13.0	13.1	11.6	11.1
Humanitarian	23.7	18.5	21.3	21.3	25.0	25.3
Employment	6.7	7.2	6.4	6.5	6.1	6.4

Coverage: See Table 3.
Source: Authors' calculations based on AGDREF data transmitted to INED.

4. Over 46,000 asylum seekers admitted for residence in 2017

Asylum seekers may be admitted for residence in France (i.e. receive a residence permit of 1 year or more) in several ways. If their application is accepted, they obtain a permit on humanitarian grounds and are counted in the fourth row of Table 7. Some of those whose application is rejected are admitted for residence on different grounds, most often for family reasons. The rates of admission for residence by submission date of the asylum application are given in d'Albis and Boubtane (2018a). The perspective here is different. Table 10 shows the annual inflows of people having submitted an asylum application to the French Office for the Protection of Refugees and Stateless Persons (OFPRA). They totalled 46,174 in 2017 and represented 19.4% of overall inflows. The number of asylum seekers admitted for residence and their share of overall flows were at their highest levels since 2012. Asylum seekers are not admitted solely on humanitarian grounds, so the total number of admissions is higher than the number admitted for this reason alone; 24.2% were admitted for family reasons in 2017. The share of women among incoming asylum seekers is lower than among overall inflows; they represented 36.6% of the total in 2017, down sharply from previous years. Since 2013, the largest share of incoming asylum seekers has been of Asian origin, representing more than 45% of the total in 2017. Africans accounted for 38%.

Table 10. Inflows of asylum seekers by first year of validity of first residence permit valid for 1 year or more

	2012	2013	2014	2015	2016	2017
Inflows	22,169	25,132	25,703	27,507	35,262	46,174
Share of women (%)	39.7	40.7	41.5	41.1	39.7	36.6
Continent of origin (%)						
Africa	41.1	37.8	37.9	35.9	36.9	38.2
America	4.9	5.2	4.7	4.1	3.0	2.8
Asia	36.6	41.6	41.4	44.0	43.9	45.5
Europe	15.7	13.8	14.5	14.9	15.3	12.9
Reason for admission (%)						
Family	36.8	45.1	38.1	33.1	28.7	24.2
Education	0.5	0.5	0.6	0.5	0.3	0.3
Humanitarian	57.3	48.4	54.4	59.5	64.3	70.1
Employment	4.7	5.3	6.2	6.2	6.3	5.1

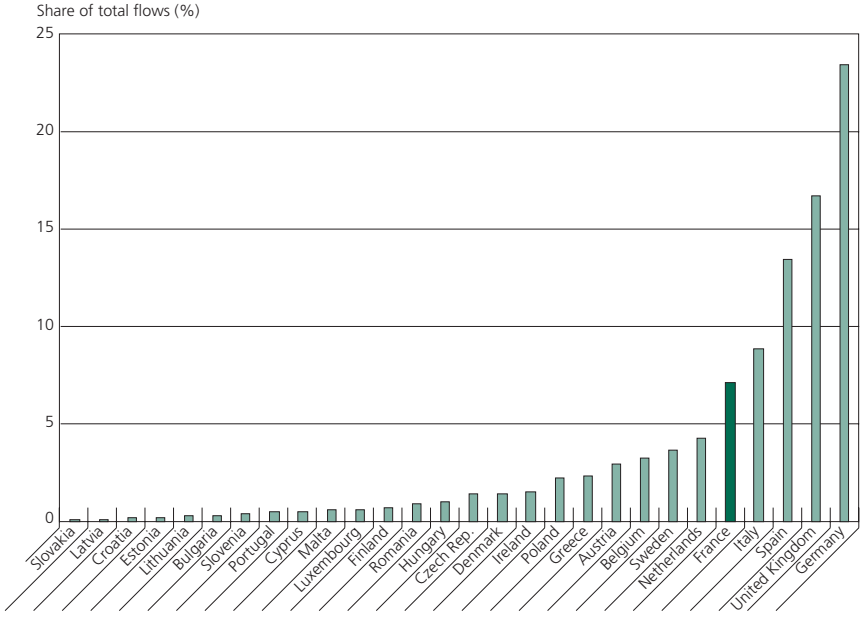
Coverage: Permits granted in France and abroad to foreign nationals who applied for asylum between 1985 and the first year of validity of the first residence permit valid for one year or more. Permits granted in year *n* and recorded in the data extracted in July of the year *n* + 2.
Source: Authors' calculations based on AGDREF data transmitted to INED.

5. Major differences across the European Union

Immigration flows vary substantially across the 28 European Union member countries. They can be compared using Eurostat data (see note 8). In 2017, immigrants entering the 28 EU countries numbered 3,371,290. This figure

includes Europeans, so it is higher than the flow of third-country foreigners entering the European Union. Figure 6 gives the share of each country in this total. France is the fifth receiving country behind Germany, the United Kingdom, Spain, and Italy. These four countries received almost 63% of the total number of immigrants to the European Union in 2017.

Figure 6. Share (%) of total immigration flows received by each European Union member country in 2017



Source: Authors' calculations based on Eurostat data.

The share of total flows received by each country has changed since 2012. The shares admitted by the five main receiving countries between 2012 and 2017 are given in Table 11. Inflows to Germany peaked in 2015 when the country admitted large numbers of asylum seekers, mainly from Syria. Numbers have since returned to the level of 2013. Conversely, a sharp increase is observed for Spain and, to a lesser extent, Italy and the United Kingdom.

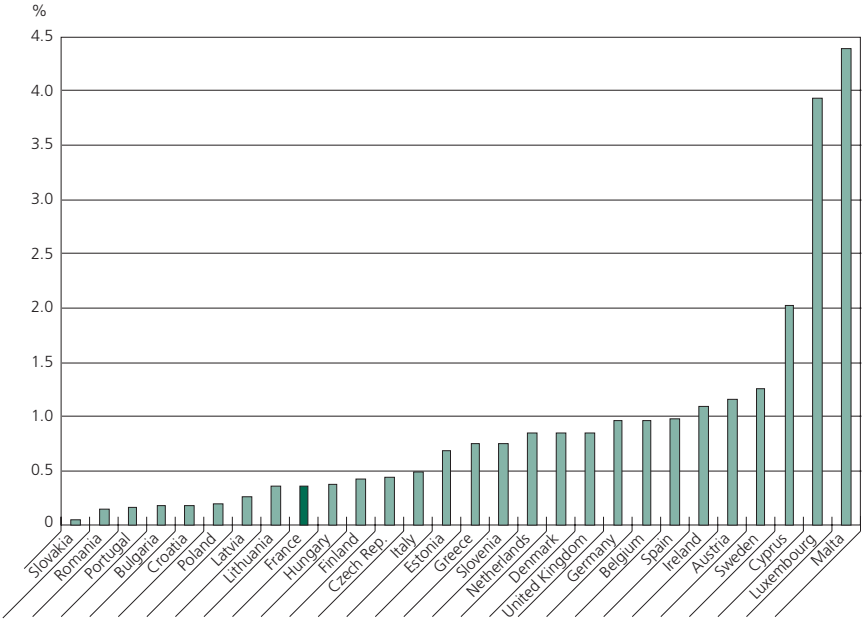
Table 11. Share (%) of total migration inflows admitted by the main receiving countries, by year

Receiving country	2012	2013	2014	2015	2016	2017
Germany	20.6	23.7	27.4	38.4	27.4	23.5
United Kingdom	17.0	17.5	19.0	14.5	15.4	16.7
Spain	11.1	9.7	9.1	7.7	10.5	13.5
Italy	13.1	10.9	8.6	6.6	7.8	8.9
France	8.6	8.5	7.4	6.2	7.2	7.2

Source: Authors' calculations based Eurostat data.

The country rankings are very different, however, when migration flows are expressed as a proportion of each country's population (on 1 January of the year in question). In 2017, six countries (Malta, Luxembourg, Cyprus, Sweden, Austria, and Ireland) had immigration rates above 1%, while 12 countries, including France, had rates below 0.5% (Figure 7).

Figure 7. Immigration rates (%) to European Union member countries in 2017



Source: Authors' calculations based on Eurostat data.

Between 2012 and 2017, immigration rates increased most notably in Estonia (+725%), Lithuania (+333%), and Portugal (+218%), while they decreased in Belgium (–8%), Italy (–8%), and Poland (–6%). Figure 8 shows the mean annual growth in immigration rates for the 28 EU countries.

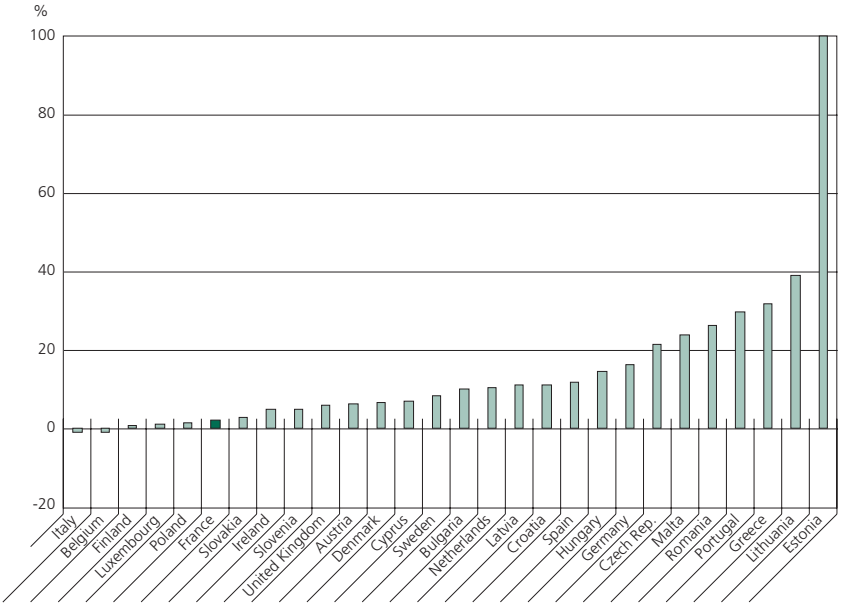
III. Births and fertility

1. A slower decline in period fertility

Births have declined continuously over the last 8 years, and estimates for the first 5 months of 2019 do not suggest a trend reversal, although levels have somewhat stabilized (Figure 9).[12] For the 4th year in a row, this steady downtrend has been accompanied by a slight drop in the total fertility rate (TFR), which now stands at 1.87 children per woman for the whole of France

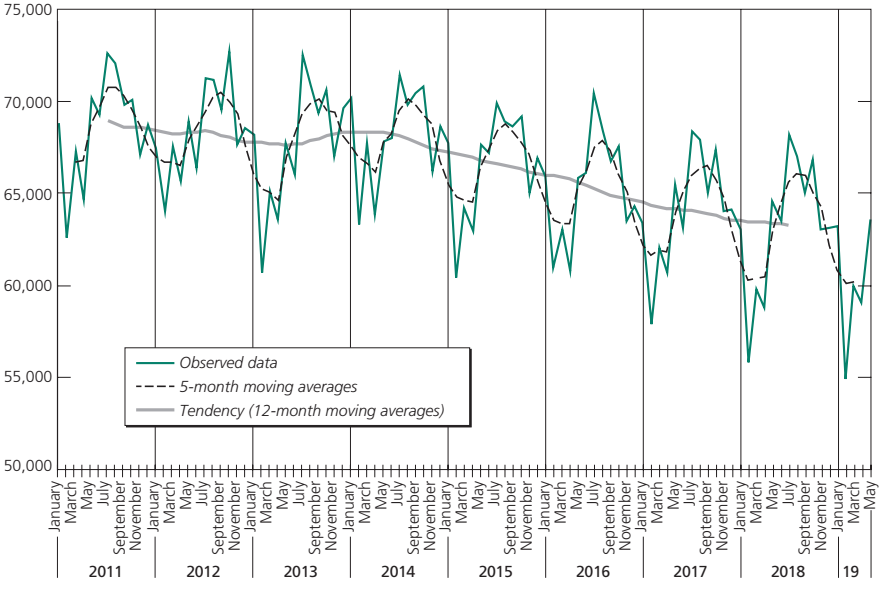
(12) At the time of writing, we have data for the first 5 months of 2019, enabling us to calculate 5-month moving averages centred on the median month (up to March 2019).

Figure 8. Mean (%) of annual rates of growth in immigration rates in European Union member countries between 2012 and 2017



Source: Authors' calculations based on Eurostat data.

Figure 9. Monthly birth numbers from January 2011 to May 2019



Interpretation: The moving averages are calculated over 5 months. The value for March 2019 (green curve) thus corresponds to the mean of the months from January to May 2019.

Coverage: Whole of France.

Sources: INSEE, time series.

versus 1.89 in 2017 (1.84 for metropolitan France alone) and 1.86 in 2016 (Appendix Table A.4) (Robert-Bobée and Volant, 2018). The year 2018 was thus marked by a slower decline in births and fertility. Between 2017 and 2018, fertility rates over age 35 increased slightly after 3 years of stability, but the rise was insufficient to offset the uninterrupted decline observed at ages 20–29 since at least 2013 (Table 12).

Table 12. Fertility by age group from 2013 to 2018

Age reached in the year	Sum of age-specific rates (per 1,000 women)						Absolute variation*				
	2013	2014	2015	2016 (p)	2017 (p)	2018 (p)	2013 2014	2014 2015	2015 2016	2016 2017	2017 2018
Under 20	38	37	35	32	30	29	–1	–2	–3	–2	–1
20–24	257	252	241	232	224	215	–5	–12	–9	–8	–10
25–29	618	612	592	575	559	545	–6	–20	–17	–16	–14
30–34	650	658	648	645	638	636	8	–9	–4	–6	–2
35–39	338	347	347	345	345	348	9	0	–2	0	3
40–44	82	87	87	89	92	94	5	0	2	3	2
45+	5	6	6	6	6	7	1	0	0	1	0
Total (TFR*)	1,988	1,999	1,955	1,924	1,895	1,873	11	–43	–32	–29	–22

* Total fertility rate (sum of age-specific fertility rates), expressed as a mean number of children per 1,000 women. Due to rounding, the total may differ slightly from the sum, and the variations may not correspond exactly to apparent differences.
(p): Provisional data.
Coverage: Whole of France (including Mayotte since 2014).
Source: INSEE, authors' calculations.

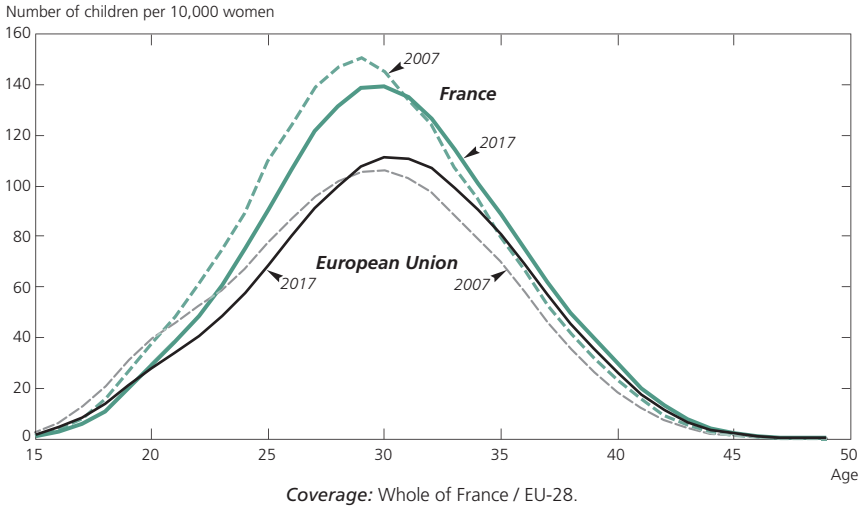
Between 2007 and 2017,[13] the curve of age-specific fertility in France shifted slightly to the right (postponement) and slightly downward (lower fertility), but its overall profile changed little. There is an identical trend towards later childbearing across all EU-28 countries. However, except for France, the increase in fertility at later ages largely offsets the decrease at younger ages (Figure 10). As a result, the European TFR remained stable between 2007 and 2017 while falling slightly in France (Table 13).

The mean age at childbearing in France was 30.6 years in 2018 (30.7 years in metropolitan France), setting an all-time record. However, this is still well below the values observed in Southern Europe and Ireland, where the mean age is close to or over 32.0 years (Table 13).

Why has the French TFR declined recently? The downtrend may reflect a decrease in fertility among the cohorts of reproductive age but also a postponement of childbearing to later ages. Over the 30-year period between 1975 and 2006, the TFR often fell below 2.0 children per woman—with a minimum in 1993 (1.66 children per woman)—while cohort fertility remained stable at around 2.0 children per woman. This inconsistency is explained by

(13) Data for 2018 are not yet available on the Eurostat website, but the changes between 2017 and 2018 are small.

Figure 10. Age-specific fertility rates in France and in EU-28 countries, 2007 and 2017



Coverage: Whole of France / EU-28.
Source: Eurostat.

a steady increase in the age at childbearing (mainly at first birth), which rose by more than 3 years over the period. The decline in the TFR observed since 2010, which has accelerated in the last 4 years, may or may not be followed by a renewed increase. This will depend on whether later childbearing is also accompanied by a decrease in fertility intensity.

2. France is still a European 'outlier'

Since 2011, the TFR in France has been the highest in Europe, ahead of Ireland and Iceland (if we look beyond the EU-28 countries), two countries where fertility was traditionally higher than in France. But with the gradual convergence of period fertility levels across Europe,[14] France was less of a European outlier in 2017 than 10 years earlier. The TFR has risen most notably in countries where fertility was low (the Baltic States and certain countries of Eastern Europe: Hungary, Lithuania, Poland, and Slovakia; and of Western Europe: Germany, Austria, and Portugal). At the same time, it has fallen in all countries where it exceeded 1.6 children per woman (Table 13). France has joined the group of Northern and Western European countries (Belgium, Denmark, Ireland, United Kingdom, and Sweden) characterized by a high TFR and mean age at childbearing. In the countries of Southern Europe (Greece, Italy, and Spain), mean ages at childbearing are similar to those observed in the North and West, but period fertility is low, at close to 1.3 children per woman.

(14) The coefficient of variation, which measures the dispersion of a distribution, has fallen from 14.4 to 10.6.

Table 13. Fertility indicators of the EU-28 countries in 2007 and 2017

Country	Total fertility rate		Mean age		Mean age at first birth		Proportion of births outside marriage	
	2007	2017	2007	2017	2007	2017	2007	2017
France	**1.98**	**1.87**	29.8	30.5	—	28.7	51.7	59.9
Sweden	**1.88**	**1.78**	**30.6**	31.1	28.8	29.3	**54.8**	**54.5**
Ireland	**2.01**	**1.77**	**31.3**	32.1	28.8	30.3	33.1	37.6
Denmark	**1.84**	**1.75**	**30.4**	31.1	—	29.4	**46.1**	**54.2**
United Kingdom	**1.86**	**1.74**	29.3	30.5	—	28.9	44.4	48.2
Romania	1.45	**1.71**	*26.8*	*27.9*	25.0	*26.5*	*26.7*	*31.2*
Latvia	1.54	**1.69**	*27.9*	*29.7*	25.2	*26.9*	43.2	40.4
Czech Republic	1.45	**1.69**	29.1	30.0	27.1	28.2	34.5	49.0
Belgium	**1.82**	1.65	29.5	30.6	27.8	29.0	43.2	49.0[(a)]
Lithuania	*1.36*	1.63	*27.8*	*29.8*	25.3	*27.5*	27.8	*26.7*
Netherlands	1.72	1.62	**30.6**	**31.4**	29.0	**29.9**	39.5	51.0
Slovenia	1.38	1.62	29.8	30.3	28.1	28.8	**50.8**	**57.5**
Estonia	1.69	1.59	*28.4*	30.4	25.3	*27.7*	**57.8**	**58.6**
Germany	*1.37*	1.57	29.9	31.0	—	29.6	30.8	34.7
Bulgaria	1.49	1.56	26.4	27.6	25.0	*26.1*	**50.2**	**58.9**
Hungary	1.32	1.54	28.8	29.8	27.1	28.0	37.5	44.7
Austria	1.38	1.52	29.4	30.7	27.7	29.3	38.3	42.0
Slovakia	*1.27*	1.52	*28.1*	*28.8*	26.2	27.1	28.8	40.1
Finland	**1.83**	1.49	30.0	30.9	28.1	29.1	40.6	44.8
Poland	*1.31*	1.48	*28.4*	*29.5*	26.0	*27.3*	*19.5*	*24.1*
Croatia	1.48	1.42	28.6	30.3	26.7	28.6	*11.5*	*19.9*
Luxembourg	1.61	1.39	**30.2**	**31.9**	28.9	**30.8**	29.2	40.8
Portugal	*1.35*	1.38	29.4	31.2	27.6	29.6	33.6	**54.9**
Greece	1.41	1.35	30.1	**31.4**	28.8	**30.4**	*5.8*	*10.3*
Cyprus	1.44	1.32	30.0	**31.4**	28.2	**29.7**	*8.7*	*20.3*
Italy	1.40	1.32	**31.0**	**31.9**	—	**31.1**	*17.9*	32.8
Spain	1.38	1.31	**30.8**	**32.1**	29.4	**30.9**	30.2	46.8
Malta	*1.35*	*1.26*	29.1	30.5	26.9	29.0	*24.9*	*25.9*[(b)]
European Union (28)	**1.6**	**1.6**	**29.7**	**30.7**	—	**29.1**	**35.1**	**41.1**[(b)]
Coefficient of variation (%)	*14.4*	*10.6*	*4.1*	*3.6*	*5.2*	*4.5*	*39.1*	*31.9*

(a) 2016
(b) 2013
Interpretation: The seven countries with the highest figures in each column are in bold and the seven with the lowest are in italics.
The countries are ranked in decreasing order of TFR in 2017.
The coefficient of variation is a measure of dispersion. It is the ratio between the standard deviation and the mean value of the indicator. The higher the coefficient of variation, the greater the dispersion between countries.
Coverage: EU-28.
Sources: Eurostat.

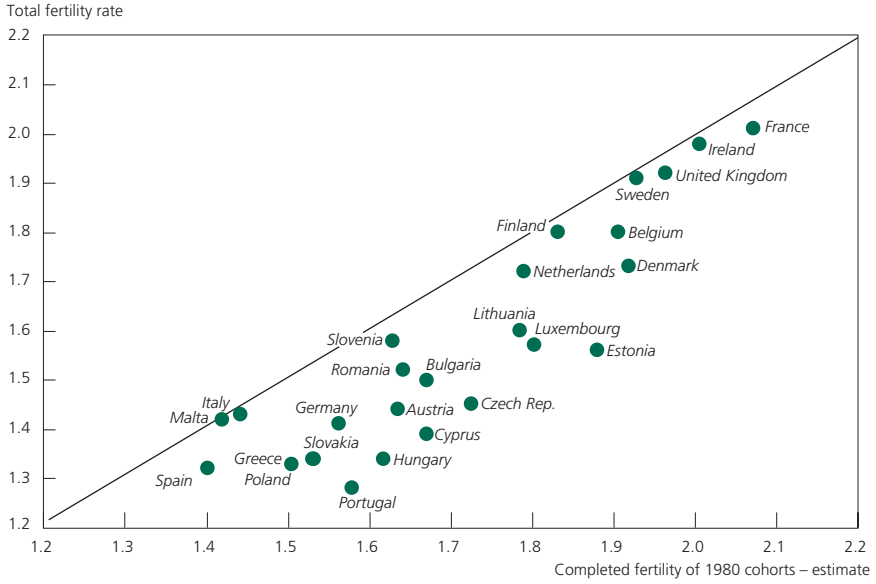
3. Women born in 1980 will have a completed fertility of more than 2.0 children per woman

Using data available in 2017, a reliable estimate of completed fertility can be obtained up to the 1980 birth cohort, aged 37 in that year. Beyond that age, the contribution to completed fertility remains marginal, although it has been

increasing almost universally since the mid-1990s after more than 4 decades of decline (Beaujouan and Sobotka, 2019).(15) Our estimates are based on two assumptions: stable fertility of women aged 40–44 and 45–49 after 2017, and a continuation of the trend in age-specific rates observed between 2012 and 2017. Under both scenarios, women born in 1980 will doubtless have more than 2.0 children on average in France (Appendix Table A.5). Applying this same logic to women born in the 1990s is more risky (they were only 27 years old in 2017), but even under a pessimistic fertility scenario,(16) their completed fertility should be equal to or above 1.95 children per woman and more probably 2.0 children.

Alongside Ireland, France is the only EU-28 country where the cohort of women born in 1980 will have more than 2.0 children per woman. In all countries, however, completed fertility will be equal to or above the TFR of 2012 (Figure 11, all countries are below the bisector).(17) The effect of birth postponement on the low levels of period fertility is real. In most countries,

Figure 11. Completed fertility of the 1980 cohort (estimate) and TFR of the 28 EU countries in 2012



Interpretation: By the end of their reproductive lives, French women born in 1980 will have 2.07 children on average, and a woman who behaves throughout her childbearing years like the women of 2012 will have 2.0 children on average.

Coverage: EU-28, excluding Latvia and Croatia.

Sources: Eurostat, authors' calculations.

(15) The mechanisms of decrease and increase of births at late ages are different. The decrease was due mainly to the disappearance of high order births, while the increase is explained mainly by the rise in age at childbearing.

(16) Continued fertility decline at ages 30–34 and discontinuation of the increase above age 35.

(17) The TFR is habitually compared with the completed fertility of the cohort born *a* years previously, *a* being the mean age at childbearing. Here, the TFR of the year 2012 is compared with the completed fertility of the cohort born in 1980 having a mean age at childbearing close to 32 years.

notably those of Southern Europe, completed fertility will nonetheless be well below cohort replacement level.

4. A growing share of childless women?

Some authors have recently described five combinations of fertility by birth order associated with a low fertility level of 1.6 children per woman: a reference model;[18] a high childlessness model; a model with a large share of only children; a fourth model where families with more than two children are rare; and a last model polarized between childless couples and families with three or more children (Zeman et al., 2018). Most European countries correspond to one of these models, but not France, which is close to the reference model but with a higher probability of having at least one child (0.85 vs. 0.80), a second child after the first (0.80 vs. 0.72), and a third child after the second (0.40 vs. 0.30).[19] Cohort fertility in France remains close to replacement level (2.1 children per woman) due to low levels of childlessness and more frequent third births than elsewhere (Breton and Prioux, 2005, 2009; Frejka, 2008; Toulemon et al., 2008; Ayerbe and Breton, 2015; Beaujouan et al., 2017).

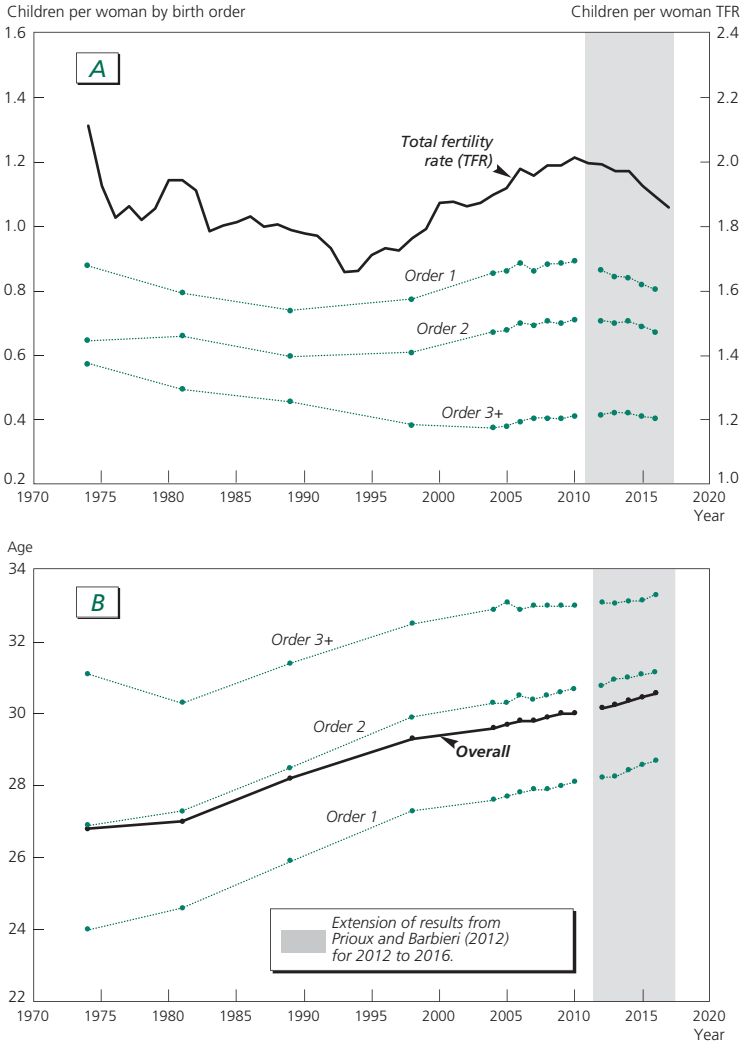
Should the decreasing TFR observed in France be considered the end of an atypical model within Europe? To answer this question, recent data on births by order are needed. Unfortunately, for historical reasons, birth order is not recorded accurately, as births were registered by order within the union and not by biological order (Breton and Prioux, 2009), even though all the mother's live-born children must be mentioned on the birth certificate.[20] Nevertheless, we can estimate order-specific fertility by applying the 'own children' method to data from the annual census surveys. This method is used by INSEE to populate the Eurostat database (Desplanques, 2008; Davie and Niels, 2012). We have extended the results presented in the 2012 article on demographic developments (Prioux and Barbieri, 2012) up to the year 2016 (Figure 12A). The decrease in the TFR is attributable mainly to a decline in the first-order component (mean number of first births), which fell from 0.89 in 2010 to 0.80 in 2016 (65% of the decrease in the TFR). The second-order component (mean number of second births) fell from 0.71 to 0.67 and that of third and higher births from 0.41 to 0.40. The sharp drop in the first-order component may signal not only an increase in cohort childlessness but also a continued trend towards ever-later first childbearing. This second hypothesis is a reality: the age at first birth (measured using the same method) would be

(18) With parity progression ratios of 0.80 from 0 to 1 child, of 0.72 from 1 to 2 children, and of 0.30 from 2 to 3 children. With these parity progression ratios, the total fertility resulting from first-, second-, and third-order births is 0.8 + 0.8*0.72 + 0.8*0.72*0.3 = 1.55 children. When fourth and higher births are added, it reaches 1.6.

(19) 0.85 + 0.85*0.80 + 0.85*0.80*0.4 = 1.80, to which fourth and higher births must be added.

(20) The quality of birth-order information in the civil records is currently being assessed using data from the Permanent Demographic Sample. Almost 1 in 5 recorded first births are in fact second births (ongoing study by John Tomkinson and Didier Breton, forthcoming).

Figure 12. Decomposition of the TFR by birth order (A) and mean age at childbearing by birth order (B), 1970–2017



Coverage: Metropolitan France.
Sources: Davie and Niel (2012), Table 3, page 31; Tomkinson and Breton (in preparation).

28.7 years for a cohort that behaved in the same way as women in 2016 throughout their reproductive lives versus 28.1 years in 2010 (Figure 12B).

First-birth postponement has a mechanical impact on age at birth of higher-order children. This trend towards later childbearing cannot continue indefinitely, however, as the risk of infecundity increases sharply beyond age 30. Indeed, very few countries in Europe have a mean age at first childbirth of 30 years or higher (Greece, Ireland, Italy, Luxembourg, and Spain; Table 13). That said, it is sometimes difficult to predict changes linked to societal factors, such as assisted reproductive technology. Age at

childbearing may also increase if women are allowed to freeze their eggs and men to freeze their sperm for non-medical reasons. This possibility was included in the bioethics bill debated by the French National Assembly in 2019.

5. Almost 1 in 4 children born to foreign parents

A recent analysis based on various data sources, including the census, has revealed the small but growing contribution of immigrant women to French births. In 2017, in France (excluding Mayotte), 18.8% of births were to immigrant mothers (born as foreigners outside France) versus 16% in 2009, but only 0.1 point of the TFR is linked to higher fertility of immigrant women (Volant et al., 2019). Older studies measured the same tendency before 2005, taking as reference births not to immigrant women but to foreign women (Prioux, 2006a; Héran and Pison, 2007). Under this definition, the proportion of children born between 2009 and 2017 to at least one foreign parent rose from 20.3% to 23.8%[(21)] (of which 34% and 40%, respectively, were born to a mixed-nationality couple).

6. More non-marital births, but most still take the father's name

In 2018, 60.3% of births occurred outside marriage. This percentage has been increasing steadily since the 1970s, and while fewer than half of children are now born to married parents, the proportion recognized by their father is not decreasing (Pison, 2018). France is the European country with the highest share of non-marital births (Table 13), overtaking the countries of Northern Europe that initiated this trend (Avdeev et al., 2011). Marriage as a prerequisite for childbearing is no longer the norm in France, and decreasingly so in Europe where the correlation between marriage and birth has practically disappeared (r^2 = 0.20 in 2017 vs. 0.28 in 2007).

Another social gender norm persists: that of giving the child the father's surname. Before 2005, it was a legal requirement for children to take their father's name or (very rarely) that of their mother if the father did not recognize the child. Since 2005, parents have been free to give the father's or mother's name only, the mother's name followed by the father's, or vice-versa, in accordance with precise legal rules (Mazuy et al., 2013). Between 2012 and 2018,[(22)] the situation changed very slowly. Slightly more than 11% of children born in 2018 received the names of both their father and mother (vs. 9% in 2012), and 82.5% their father's name only (vs. 83.0% in 2012). Among children born outside marriage, the proportion receiving their father's name only (74.4%) has remained practically stable since 2012. In 2015, 14.4% of these children had a double name compared with 4.5% of children born to a married couple.

(21) Measured through specific analysis of civil records (whole of France, excluding Mayotte).

(22) The variable used to calculate statistics on children's birth names has been available only since 2012 in the INSEE online databases.

The proportion also varies by the mother's nationality and the department of birth, with more double names in the south-west of France and the Pyrénées orientales, for example (Bellamy, 2015).

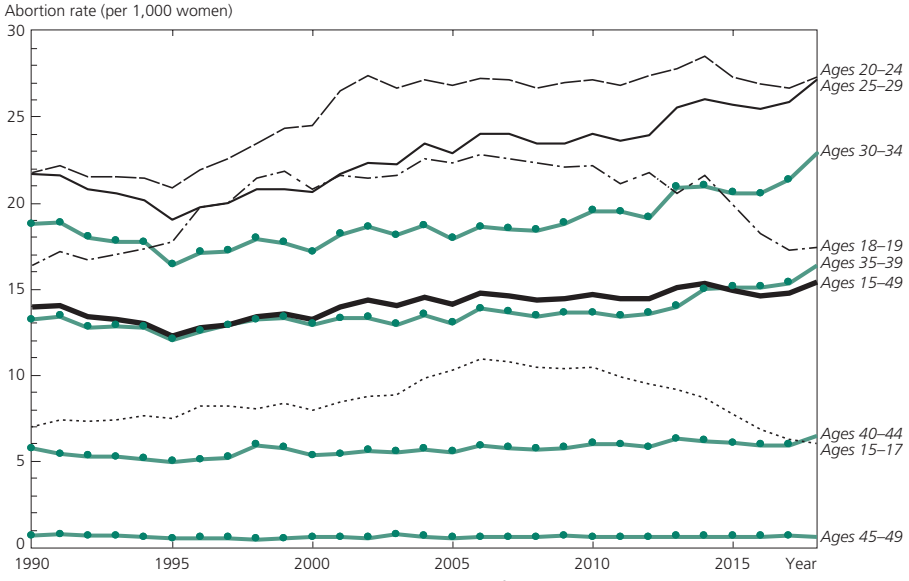
IV. Induced abortion

1. Increase in induced abortions in 2018

For the whole of France, the number of induced abortions increased to 224,300 in 2018, up from 217,800 in 2017 (Vilain, 2019), while remaining below the levels recorded in 2014 (227,038) and 2013 (229,021). In metropolitan France, the total was 209,500 (Appendix Table A.8). Expressed as a number of induced abortions per 1,000 women aged 15–49, the figure rose from 14.8 in 2017 to 15.5 in 2018 for the whole of France (from 14.4 to 15.0 in metropolitan France). The total abortion rate (mean number of abortions per woman) also rose slightly to 0.56 (Mazuy et al., 2015). These various indicators all point to a rise in induced abortion in 2018.

This increase is observed especially for women aged 25 and older (Figure 13). Among the youngest women, notably the under-20s, a continued downward trend reflects the increase in age at childbearing and a high level of contraceptive coverage; only a small minority of sexually active women below age 25 do not use any form of contraception (Rahib et al., 2017). Geographically, while recourse to abortion varies considerably across regions (Breton et al., 2017;

Figure 13. Induced abortions per 1,000 women by age group, 1990–2018



Coverage: Whole of France.
Source: Vilain (2018, 2019).

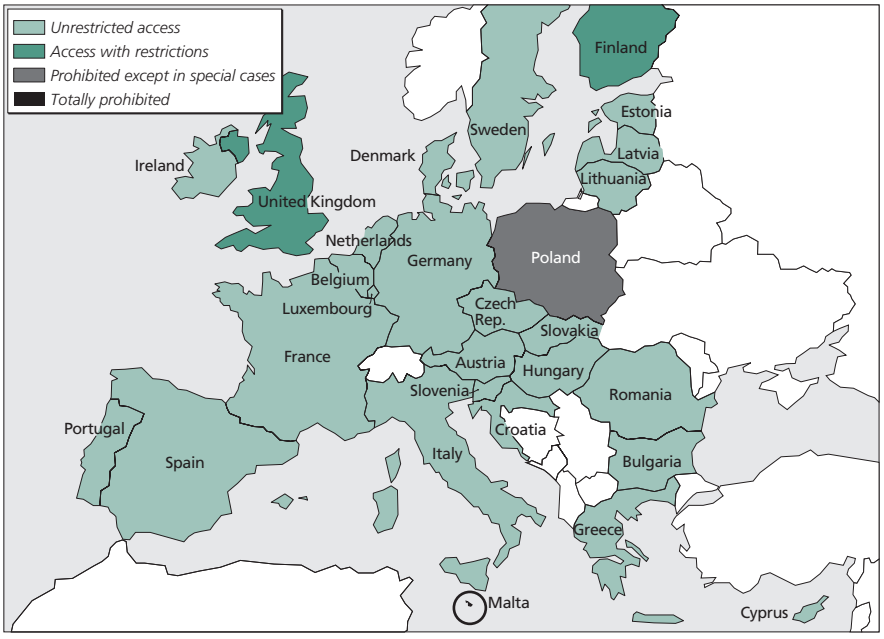
Vilain, 2018, 2019), it is increasing everywhere, including in the overseas departments and in regions where abortion is least frequent, such as Pays de la Loire, where practitioners are also scarce.

This slight increase coincides with a decline in fertility in 2018, although the decrease is smaller than in the 2 preceding years (see below). A new survey is needed to shed light on these contrasting trends in annual fertility rates and in abortions, which are doubtless multifactorial: fewer births at young maternal ages, concentration of births around age 30, a halt in the trend towards ever-later childbearing, changes in sexual and contraceptive behaviour, increasing economic insecurity, etc.

2. Abortion in the European Union

Most countries of the European Union have decriminalized, legalized, and/or lifted restrictions on access to abortion (Figure 14). The majority have enacted laws authorizing abortion on request, most often within a legal limit of 12 weeks of amenorrhoea (these limits range between 10 and 24 weeks). Abortion became legal only recently in Luxembourg (22 December 2014), Cyprus (March 2018) and Ireland (13 December 2018). In other countries, access is restricted. On 9 July 2019, the British parliament (in the absence of the Northern Ireland Assembly) voted amendments that included a law extending abortion rights in Northern Ireland. They were enacted by the

Figure 14. Abortion rights in the countries of the European Union



Source: Council of Europe (all EU countries, updated 27 August 2019).

House of Lords on 22 October 2019 without the local executive power. Access should be effective April 2020. In Finland, abortion on request is not strictly recognized under law, but in practice it is available to all women. Access to abortion in Poland is restricted to cases of danger to the mother's health, foetal malformation, or rape. Malta is the only country where it is totally prohibited.

Governments make regular attempts to limit access to abortion (through stricter conditions for health insurance reimbursement, specific restrictions for minors, bills to reverse the liberalization of abortion on request), as was the case in Spain in 2015. The Spanish government finally withdrew its bill while making abortion for minors conditional upon parental consent. The conscience clause evoked by physicians who refuse to perform abortions[23] and the lack of appropriate training are major obstacles to the availability of induced abortion. The situation in Italy is especially problematic in this respect. Provision has become so limited in certain regions that many women are forced to travel elsewhere in the country or abroad to access abortion.

The abortion rates in EU countries are at an intermediate level with respect to other world regions. They are above those observed in North America and Oceania but below those of Africa, Latin America, and the Caribbean, where rates are highest (Rossier, 2014; Sedgh et al., 2016; Guillaume and Rossier, 2018). In Europe, rates fell from 48 to 27 abortions per 1,000 women between 1995 and 2008. They also fell elsewhere in the world over this same period, from 33 to 28 per 1,000 in Africa and Asia and from 37 to 32 per 1,000 in Latin America.

According to data published by Eurostat (non-exhaustive)[24] and national statistical offices, rates are lowest in Germany, certain Eastern European countries and the Balkans (Latvia, Lithuania, Poland, Czech Republic, Slovakia, and Slovenia), Finland, and the countries of Southern Europe (below 8 per 1,000). They are slightly higher, at close to 10 per 1,000, in Belgium, the Netherlands, Iceland, Hungary and Romania, and higher still in France, Bulgaria, and England and Wales.

Overall abortion rates vary widely within the European Union, but they have fallen substantially since the 1990s thanks to the easing of abortion restrictions and growing contraceptive uptake.

Rates can thus be correlated with contraceptive coverage, overall fertility, and conditions of access to abortion. Low rates may reflect a situation where abortion is restricted and highly stigmatized. For example, rates are intermediate or low in countries where abortion is legal but where the influence of religion is strong, such as Italy and Poland. The patterns observed in Eastern European countries are linked to their history of regime change; in Poland, abortion was legalized in 1956, then banned once again in 1993. Besides the legal barriers to abortion in some countries, practical access is not necessarily guaranteed, and the abortion services

(23) Under this clause, a physician can refuse to perform an abortion if he or she considers it to be contrary to his or her personal, professional, or ethical beliefs.

(24) See Eurostat: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_fabortind&lang=en

available to women do not always cover their diverse range of needs. Multiple obstacles may stand in the way of women seeking a safe abortion. These include a lack of accessible medical services at the local level; a conscience clause that reduces the number of available physicians; cost; worries about anonymity;[25] lack of provision for late abortions; a shortage of trained professionals, etc. (Guillaume and Rossier, 2018). France is no exception, with a shortage of practitioners in some regions, severe bottlenecks at certain times of year (in the summer months especially), and the closure of family-planning centres (Commission IVG, 2016).

Yet legal and safe abortion is positively correlated with a lower mortality risk. The issues of legalization and quality of coverage are key to ensuring women's sexual and reproductive health (WHO, 2012; Council of Europe, 2017).

3. Improving provision

New channels for providing non-hospital sexual and reproductive healthcare are developing in France and elsewhere, providing a means to extend abortion services or to complement existing provision in regions where it is poor or inadequate.[26] For example, web-based telemedicine can provide access to abortion pills for women living in areas where services and practitioners are lacking.[27] It also gives women greater independence in their reproductive health choices and practices (Aiken et al., 2016; Sheldon, 2016).

In France, midwives can now perform medical abortions under a decree published in 2016 (Decree of 2 June 2016 on the capacity of midwives to perform medical abortions). In 2018, 248 midwives performed medical abortions in France. They represented 12% of all non-hospital practitioners who have performed such procedures (Vilain, 2019). Only early abortions are covered by these forms of non-hospital care, however; they cannot make up for the shortage of services for later abortions. The proportion of midwives who perform abortions will probably increase over time (especially with the rising share of medical abortions, which accounted for 69% of all abortions in 2018), and their legal scope of competence may be broadened in the future to include surgical abortions. In late September 2019, the French Ministry of Health announced its intention to extend authorization for midwives to perform surgical abortions (from the first quarter of 2020) and included abortion services among hospital evaluation criteria. The question of specialist training remains crucial. Belgium, for example, announced in August 2019 that abortion procedures are to be included in the training curriculum for medical students.

(25) For women living in rural areas, for example, or who fear that medical documents will be sent to their home.

(26) Non-hospital care is an emerging phenomenon. Midwives are now able to prescribe contraception and perform abortions, and the use of medical abortion is increasing.

(27) Women on Waves/Women on Web provide help to women without access to safe abortion services. Women can perform an abortion at home using mifepristone and misoprostol (before the 9th week of pregnancy). The aim is to prevent women from using unsure and unsafe methods, especially in countries where abortion is illegal.

V. Marriages, civil and consensual unions, and divorces

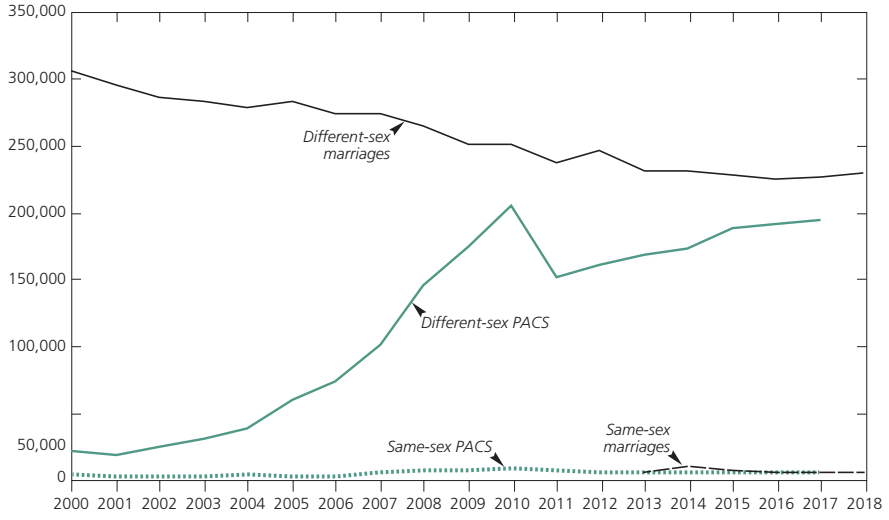
1. Registered unions

Marriages nearing a record low, PACS unions close to peak numbers

In 2017, 233,915 marriages and 193,950 PACS unions[28] were registered in France, a ratio of around 4 PACS per 5 marriages. Despite the opening of marriage to same-sex couples in 2013,[29] the number of marriages was close to its record low (232,725 marriages in 2016), while the number of PACS reached the second-highest level ever attained, after the peak of 205,000 in 2010 (Figure 15).[30] Compared with 2016, the number of marriages increased by 0.5% (+1,190), and PACS unions rose slightly more, by 1.3% (+2,413).

According to provisional data, the 235,000 marriages in 2018 (Papon and Beaumel, 2019) signal a potential continuation of the ongoing slight uptrend. The number of PACS registrations in 2018 is not yet known. As of 1 November 2017, PACS unions are now registered and dissolved in municipal registry offices and no longer in magistrates' courts, as had been the case

Figure 15. Annual numbers of marriages and PACS unions by partners' sex since 2000



Note: Provisional data for 2018.
Coverage: Whole of France (including Mayotte since 2014).
Source: Civil records, INSEE, Ministry of Justice.

(28) The law of 15 November 1999 authorized civil unions between both different-sex and same-sex partners. Source: Ministry of Justice / SG / SEM / SDSE / statistical analysis of the Répertoire général civil and the notarial database.

(29) Law of 17 May 2013 opening marriage to same-sex couples.

(30) The number of PACS unions fell in 2011 after a reform of the tax breaks applicable in the year of union registration (PACS or marriage).

since 1999.[31] Subject to confirmation of initial data published by the Ministry of Justice, among the 193,950 PACS unions concluded in 2017, 44,493 were registered in municipal registry offices in the months of November and December, representing 23% of the total for that year. This was an increase of 13,382 with respect to the same period in 2016, reversing the decline observed between 2015 and 2016 in PACS unions registered at magistrate's courts in the last 2 months of the year (–4.4%). This new provision may have encouraged more couples to register a PACS at a municipal registry office rather than with a notary: in November and December 2017, 32,976 PACS unions were registered with notaries, slightly down from 2016, representing 17% of the annual total (17.4% in 2016).

Each year since 2013, marriages have outnumbered PACS unions among lesbian couples (Table 14), while for gay couples, PACS unions have again overtaken marriages since 2016. In 2017, same-sex unions represented 3.1% of all marriages and 3.8% of all PACS unions.

Table 14. Number of unions (PACS or marriage) registered between 2013 and 2017 by partners' sex

Year	Marriages			PACS unions		
	Between a man and a woman	Between 2 men	Between 2 women	Between a man and a woman	Between 2 men	Between 2 women
2013	231,225	4,307	3,060	162,714	3,354	2,734
2014	230,770	5,666	4,856	167,487	3,519	2,745
2015	228,565	4,085	3,666	181,949	3,933	3,085
2016	225,612	3,672	3,441	184,444	3,863	3,251
2017	226,671	3,637	3,607	186,614	4,084	3,252
2018 (p)	229,000	6,000				

(p): Provisional data.
Coverage: Whole of France (excluding Mayotte up to 2013 and including Mayotte from 2014).
Source: INSEE, Ministry of Justice.

Although the number of intimate relationships and unions is increasing across birth cohorts for both men and women (Rault and Régnier-Loilier, 2015), the vast majority of marriages are still first marriages. The EPIC survey, covered in a special issue of *Population* (Rault and Régnier-Loilier, 2019), shows that more than half of the respondents in the 1970 birth cohort had experienced at least two important relationships before age 40.[32] Yet in 2017, almost 80% of marriages were first marriages: 79.8% of men and 80.9% of women who married a different-sex partner in that year were never-married. The proportions were higher for same-sex couples, at 91.6% and 89.3%, because while some people may have been married to a different-sex partner in the past, there have been few years in which to marry and divorce a same-sex partner since 2013.

(31) Further to this modification, INSEE is now responsible for collecting data on PACS unions. Couples can still register their PACS with a notary, as has been the case since 2011.

(32) The EPIC survey (Étude des parcours individuels et conjugaux) was conducted in metropolitan France in 2013–2014 on a sample of 7,825 women and men aged 25–65.

Box 1. Total period rates

Calculating total period rates eliminates the effects of variations in population size and age structure, making it possible to describe changes in union formation behaviour over the life course. Taking account of all marriages (including remarriages) and at all ages (including after age 50), we calculate a mean number of marriages per 1,000 people under the conditions of a given year (Table 14). An identical calculation can be made for PACS unions. Marriage and PACS indicators can be compared for unions as a whole but not for distinct union orders because this information is not recorded when a PACS union is registered.

Standard total period first-marriage rates are obtained by summing probabilities or rates up to age 49 (Appendix Table A.9). However, as first marriages and remarriages after age 50 are becoming more frequent, it is useful to calculate indicators that take account of all marriages at all ages, including after 50, by summing rates at all ages (or age groups) from age 18, both for marriages and for PACS unions. This also makes it possible to compare marriages with PACS unions, which cannot be distinguished by order in available data.

This downtrend in marriages in France over the last decade is only weakly related to changes in the population of marriageable age. While the number of marriages fell by 23.4% between 2000 and 2018, the population of France at the ages when marriage is most frequent (ages 25–54) decreased by only 3% for men and 1% for women over the period.

Convergence between numbers of PACS unions and marriages, but differences in timing

Under the marriage conditions at all ages of 2017, the total period marriage rate (Box 1) across all marriageable ages was 571 per 1,000 men and 561 per 1,000 women (Table 15).

Between 2014 and 2017, the total period marriage rate fell by 15 points for men (from 586 to 571) and by 12 points for women (573 to 561). This decrease stems not only from the decline in the total period first-marriage rate (by 2 points for men and 3 points for women) and remarriages (by 3 points for both sexes) but also from the stronger decrease in same-sex first marriages (from 24 to 16 for men, 20 to 15 for women) after the exceptionally high number recorded in 2014—the first full calendar year following the legalization of marriage for same-sex couples.

Conversely, between 2014 and 2017, the total period PACS rate per 1,000 people increased sharply (from 438 to 495 for men, 423 to 479 for women), thus contributing to a convergence in the rate of PACS unions and marriage. This increase appears higher in relative terms for same-sex PACS unions (17.5% for men, 19.4% for women) than for different-sex PACS unions (12.8% for men, 12.9% for women).

In terms of union timing, while both men and women enter a PACS union 2.5 years earlier, on average, than marriage, this age difference increased between 2014 and 2017. While mean age at entry into a PACS union remained stable at 35.0 years for men and 32.5 years for women between 2014 and 2017, the mean age at marriage increased by 0.5 years for men and 0.6 years for

women. This increase is due mainly to an increase in age at first marriage, which rose by 0.8 years for men and women between 2014 and 2017, while the increase in mean age at remarriage of widow(ers) and divorcees is smaller, for men especially (+0.2 to +0.3 years).

Last, same-sex couples still marry much later than different-sex couples, gay couples especially (43.2 years), despite a sharp decrease between 2014 and 2017 (2.1 years for men, 2.4 years for women) linked to the disappearance after 2013 of the 'stock' of older couples wishing to marry. This same 'rejuvenation' is observed for same-sex PACS unions (a decrease of 0.7 years to 37 years for men, and of 1.3 years to 35.2 years for women).

Table 15. Number of unions per 1,000 people (total period event rate*), all ages at entry into union, and mean age at union in 2014 and 2017 by marital status at time of union

	All marriages		Different-sex marriages							
			Men				Women			
	Men	Women	Overall	Single	Widowed	Divorced	Overall	Single	Widowed	Divorced
Total period marriage rate (per 1,000 people)										
2014	586	573	560	453	6	101	551	451	6	94
2017	571	561	554	451	5	98	544	448	5	91
Mean age at marriage (years)										
2014	37.2	34.5	36.9	33.7	59.2	49.6	34.3	31.7	52.6	45.6
2017	37.7	35.1	37.5	34.5	59.4	49.9	35.0	32.5	53.3	46.1

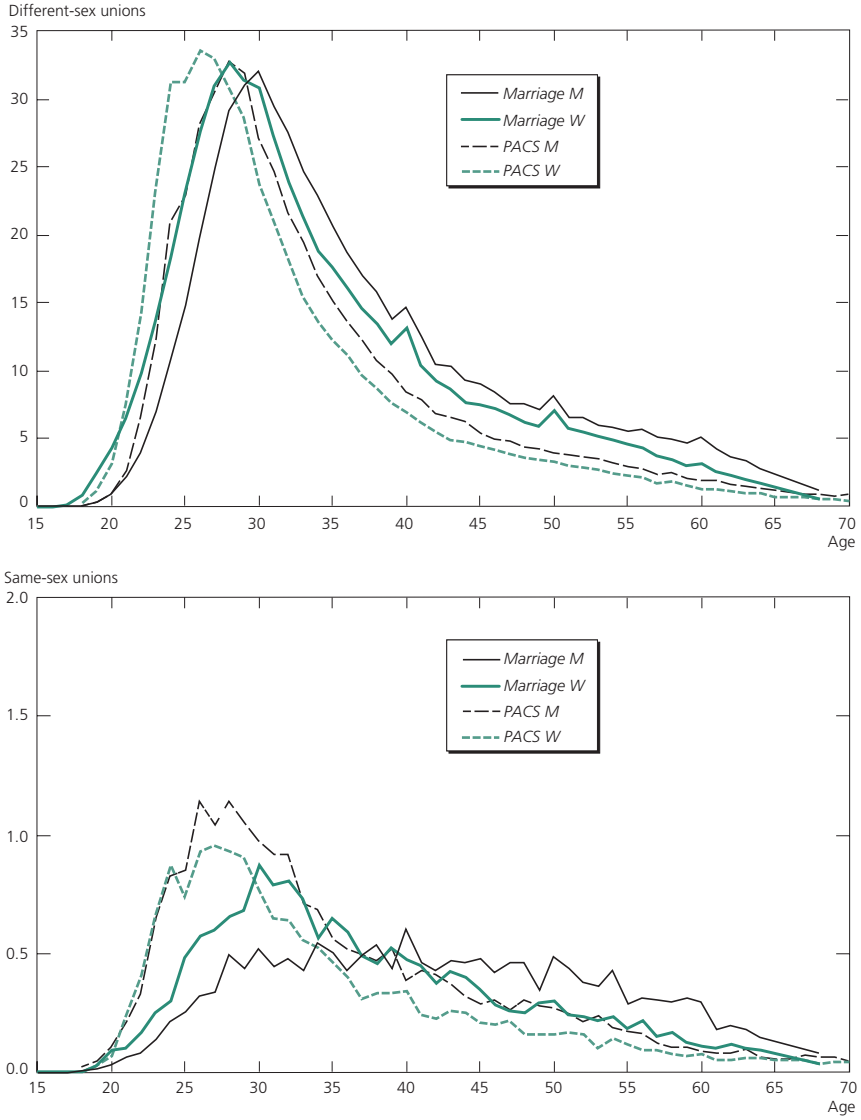
	Same-sex marriages							
	Men				Women			
	Overall	Single	Widowed	Divorced	Overall	Single	Widowed	Divorced
Total period marriage rate (per 1,000 people)								
2014	26	24	0	2	22	20	0	3
2017	17	16	0	1	17	15	0	2
Mean age at marriage (years)								
2014	45.3	44.5	55.7	53.1	40.6	39.5	51.6	48.6
2017	43.2	42.3	59.4	52.5	38.2	37.2	51.3	46.9

	All PACS unions		Different-sex PACS unions		Same-sex PACS unions	
	Men	Women	Men	Women	Men	Women
Total period PACS rate (per 1,000 people)						
2014	438	423	420	410	18	13
2017	495	479	474	463	21	16
Mean age at PACS (years)						
2014	35.0	32.5	34.9	32.4	37.7	36.5
2017	35.0	32.5	34.9	32.4	37.0	35.2

* Aggregate number of events (marriages, PACS) at all ages and mean age calculated from all event frequencies at all ages (including beyond age 50).
Coverage: Whole of France.
Source: Ministry of Justice, INSEE, civil records, authors' calculations.

For different-sex unions, in 2017, the modal age at entry into a PACS union was around 25 years for women and 28 years for men compared with 28 and 30 years for marriages (Figure 16). Marriage becomes more frequent than PACS unions from these ages. Beyond age 40, marriage is still the preferred choice for formalizing a union (more than 1.5 times more frequent than the PACS).

Figure 16. Union formalization rates by age, sex, and type of couple



Note: Number of persons who married (or registered a PACS) in 2017 per 1,000 people of a given age.
Coverage: Whole of France.
Source: Civil records, Ministry of Justice, authors' calculations.

Regarding the much smaller number of formalized same-sex unions, PACS unions are still highly concentrated around age 28, for both gay and lesbian couples, while age at marriage is quite heterogeneous. Lesbian couples marry mainly around age 30, while among gay couples the dispersion is wider, with relatively similar marriage frequencies at all ages between 28 and 50 in 2017. Among gay couples, there is a clear preference for the PACS at young ages and marriage later in life (after age 40), while for lesbian couples, marriage is chosen at much earlier ages.

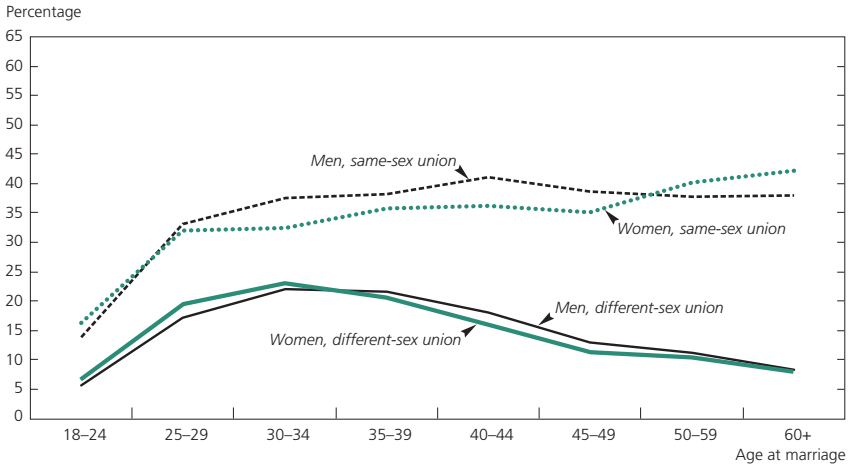
As in previous years (Breton et al., 2017), a peak in marriages at ages ending in 0 is again observed in 2017 and is even becoming more pronounced. It mainly concerns marriages, both remarriages and first marriages, between different-sex partners, notably at ages 40 and 50. This preference for rounded ages is not observed for PACS unions, however, which is consistent with previous findings on the differences in importance attached to the two forms of union officialization (Rault and Régnier-Loilier, 2019).

At age 30, more than 1 in 5 newlyweds were in a PACS union before marrying

Each year, a share of the couples who marry were already in a PACS union. This means that not all marriages represent a newly contractualized union. In 2016, 40,670 PACS unions were dissolved by a marriage; this means that the number of PACS unions was almost equal to that of marriages between couples not previously in a PACS. Altogether, from 1999 to the end of 2016, almost 270,000 PACS unions were dissolved by marriage.[33] With the growing number of PACS unions dissolved by marriage and the concomitant decrease in marriages, the share of different-sex marriages following a PACS is rising. They accounted for 17% of the total in 2016. Among same-sex couples, however, the share already in a PACS has been decreasing since 2013, accounting for 34.7% of lesbian marriages and 37.3% of gay marriages in 2016. Now that marriage has been open to same-sex couples for several years, the number already in a PACS union and wishing to marry is falling. These proportions also vary by the partners' age; more than 1 in 5 newlyweds aged 30–34 were previously in a PACS union (21.9% of men and 23.1% of women who married at this age in 2016), but this share then decreases with age (Figure 17). It is at the ages where marriage is most frequent that the share of marriages between different-sex couples already in a PACS union is highest. This is not the case for same-sex marriages (for which the share varies between 35% and 40% at all ages beyond 25).

(33) A PACS union is automatically dissolved by the marriage of one or both partners. A PACS is generally dissolved by a marriage between the same partners, although in some cases one partner marries somebody else. This is impossible to verify because the information is not recorded either when the marriage is registered or when the PACS is dissolved. However, before 2013, a few dozen same-sex PACS unions were dissolved due to marriage each year, at a time when marriage between same-sex PACS partners was still impossible.

Figure 17. Percentage of marriages that dissolved a PACS by age at marriage and partners' sex (marriages in 2016)



Coverage: Whole of France.

Source: Civil records, INSEE, PACS database of the Ministry of Justice (access via CASD), authors' calculation.

2. Marriage and PACS trends across cohorts

PACS unions most frequent among the cohorts born in the early 1980s

The marriage trends described above are the result of a steady decline in first-marriage rates across the cohorts born since the 1950s and of a continuous increase in age at marriage (Appendix Table A.10A). An estimated 55% of men and 61% of women in the 1980 birth cohort will marry before age 50,[34] at age 31.8 on average for men and age 29.7 for women. These trends appear to be continuing in subsequent birth cohorts, among whom a decrease in the proportion ever-married at ages 25 and 30 has already been observed.

Introduced in 1999, the PACS union has gained in popularity across successive cohorts over the last 20 years (Figure 18). At the end of 2017, for both men and women, the total period PACS rate[35] (whatever the partner's sex) was highest among the cohorts born in the early 1980s. These were the first cohorts able to enter a PACS union from age 18, giving them an alternative to marriage from the start of their conjugal life. Among 35-year-olds born in 1982, there were 245 PACS per 1,000 men and 243 per 1,000 women. If the behaviours observed in recent years beyond age 35 remain unchanged, the total period PACS rate at age 50 in this cohort should reach 359 per 1,000 for men and 333 per 1,000 for women and a slightly higher level (402 for men, 363 for women) if PACS unions after age 50 are included. The difference between

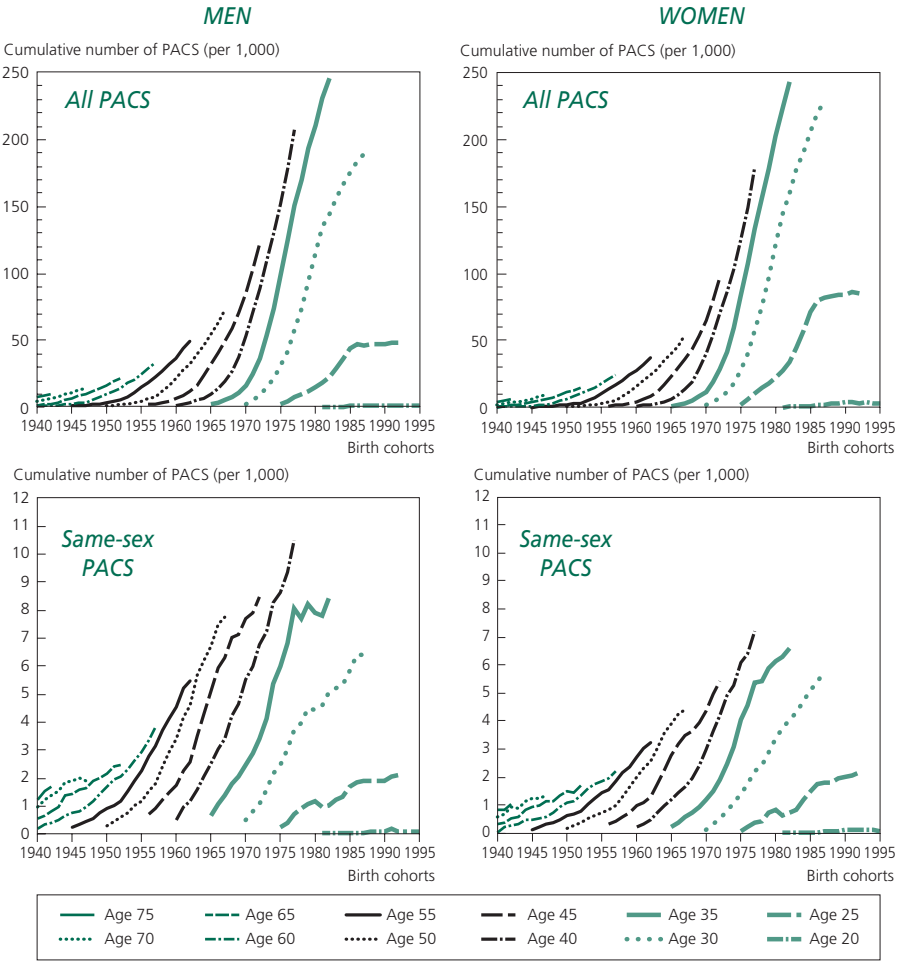
(34) On condition that the behaviour of this birth cohort beyond age 37 remains the same as that of previous birth cohorts observed over the most recent years for which data are available (2015–2017).

(35) Total period PACS rate by age (per 1,000 people) in a birth cohort from age 18.

marriage and PACS frequencies in this birth cohort remains large, especially considering that only first marriages are included here.

For older cohorts, some couples were already married in 1999 and so could not choose between the two types of union. Hence, the older the birth cohort, the lower the total period PACS rate at a given age. Given the level already reached at age 30 in the 1982 birth cohort, the total period PACS rate should continue to increase in subsequent cohorts. That said, starting with the cohorts born in the late 1980s, the total period PACS rate at age 25 levels off at around 85 per 1,000 women and 47 per 1,000 men at that age, women entering unions at an earlier age than men.

Figure 18. Total cohort PACS rate (per 1,000 people)* at different ages in the birth cohorts, by type of PACS (all PACS, same-sex PACS)



* Total period PACS rate at all ages from 18 years.

Coverage: Whole of France

Source: INSEE, Ministry of Justice, authors' calculations.

Among same-sex PACS unions, the total period PACS rate in 2017 is highest among slightly older cohorts (born before 1982); same-sex partners are older on average at the time of entry into union, and this was especially so in the first few years after the PACS was introduced. Among 40-year-olds born in 1977, the total period same-sex PACS rate is 10.5 per 1,000 for men and 7.2 per 1,000 for women, with gay PACS unions largely outnumbering lesbian PACS unions since 1999.

3. Divorces and PACS dissolutions

Incomplete divorce statistics in 2017 following the reform of 2016

On 1 January 2017, it became possible for married couples to divorce without going through the courts,[36] so an increase in divorces was expected in that year (Breton et al., 2018). The first figures published by the Ministry of Justice show a sharp decrease in 2017, with just 90,613 divorces registered, down by 37,000 with respect to 2016 (–29%), and a total divorce rate that plummeted to 33.1 divorces per 100 marriages (compared with 46.7 in 2016). This drop is entirely attributable to divorces by mutual consent, which account for a large share of the total (down from 71,133 in 2016 to 33,457 in 2017, a 53% decrease). But divorces registered with a notary are not yet included in the published figures. These will be added to those pronounced and registered by the courts; it is therefore too early to measure the effects of the new legislation. A large number of couples likely divorced via a notary in 2017, confirming the utility of this reform.

Last, the published statistics indicate that the younger the spouses at the time of divorce, and the shorter their marriage, the sharper the decrease in court divorces in 2017 with respect to 2016. These are probably the couples most inclined to divorce via a notary (fewer assets, fewer children) because the divorce proceedings are simpler in such cases. The number of fault-based divorces (7,665 in 2017) also fell to historically low levels.

Disregarding divorces in 2017, for which full statistics are not yet available, the final proportion of marriages dissolved by divorce increases across marriage cohorts, exceeding 40% for marriages registered from 1990 (Appendix Table A.10B). If behaviours remain unchanged, the proportion should stabilize at around 45%. In terms of timing, divorces will likely occur slightly earlier in the marriage, as mean marriage durations at the time of divorce have decreased from 15.6 years to 13.2 years across marriage cohorts.

More than half the PACS unions registered before 2007 have been dissolved

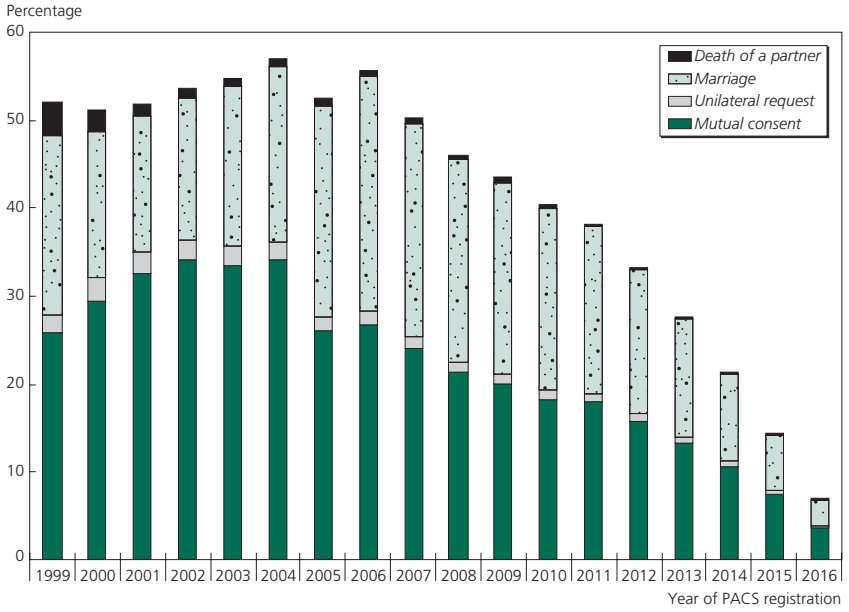
The annual number of PACS dissolutions fell for the first time in 2017, with 82,345 dissolutions, down by 2,317 (2.7%) with respect to 2016. This decrease may be linked to the new system of PACS registration in municipal registry

(36) Law no. 2016-1547 of 18 November 2016 on the modernization of justice in the 21st century.

offices[37] and to delayed and incomplete transmission of registration and dissolution figures. The breakdown by reason for dissolution is not yet known for the whole of 2017, but the database of all PACS unions registered before November 2017 enables us, for the first time, to follow the outcomes of PACS unions by cohort and with respect to several different variables (Box 2).

More than half of the PACS unions registered before 2007 had been dissolved by 1 November 2017 (Figure 19), the largest share (from 25% to 34% across the cohorts) by mutual consent. A substantial share (15% to 20%) was dissolved by the marriage of one or both partners. This proportion increases for the PACS unions formed between 2007 and 2010 (20% to 25%), while the share of dissolutions by mutual consent decreases across the cohorts. For PACS unions registered after 2007, the rate of dissolution for whatever reason decreases for the more recent unions, as the period of exposure to the risk of dissolution is shorter.

Figure 19. Aggregate number of PACS unions dissolved by end 2017, by reason and year of PACS registration (%)



Interpretation: Out of 100 PACS unions registered in 1999, 25.8 were dissolved by mutual consent before 1 November 2017.

Note: This figure illustrates the four most common reasons for dissolution. Others (e.g. by the request of a legal guardian) are recorded but remain quite rare.

Coverage: All PACS unions registered before 1 January 2017, situation on 1 November 2017.

Source: Ministry of Justice (accessed via CASD), authors' calculations.

(37) As of 1 November 2017, PACS unions are now registered in municipal registry offices and no longer in magistrates' courts, as was the case since 1999. Moreover, 2,057 fewer dissolutions were registered in the last 2 months of 2017 in municipal registry offices compared with those registered in the courts over the same period of 2016. Conversely, PACS dissolutions registered by notaries increased sharply between 2016 and 2017 (from 3,931 to 5,275, an increase of 34%).

Box 2. PACS data published by the Ministry of Justice

The French Ministry of Justice has developed an exhaustive database of all PACS unions registered and dissolved in the courts from 1999. It includes all the 2.1 million contracts registered in the courts and by notaries up to 1 November 2017. Accessed via the Secure Access Data Centre (CASD) to guarantee confidentiality, it contains the following information for each contract registered since 1999:

- date and place of contract registration (court seized);
- partners' municipality of residence;
- sex and date of birth of each partner; and
- date and reason for PACS dissolution (if applicable).

Adjustments have been made for information not collected before 2007 (mention of the PACS in the partners' civil records, notably their sex).

For all PACS cohorts, analysis of dissolutions by sex reveals a higher dissolution rate (for all reasons other than marriage) for PACS unions between two women (Table 16) and, to a lesser extent, between two men. Various studies in European countries and in the United States (Wiik et al., 2014; Bennett, 2017) have already highlighted the greater fragility of these same-sex unions (civil partnerships or civil unions), particularly those between two women (Marteau, 2019).

Moreover, the partners' age (both under 35 vs. both over 35 at the time of PACS registration) is a determinant of dissolution risk for same-sex couples. Whatever the year of PACS registration, there are at least twice as many dissolutions of same-sex PACS unions when the partners are under 35 at entry into union as when they are over 35. Here again, these findings mirror those of certain Scandinavian countries (Bennett, 2017), which show a strong age gradient in the dissolution risk of same-sex unions. This age effect is not observed for heterosexual PACS unions, whose dissolution rate remains similar at all ages.

It is worthwhile to examine differences in the stability of PACS unions and marriages. To make this comparison, we assume that PACS unions dissolved by marriage are not breakups but simply a change in the type of officialization preferred by the partners (Table 16).[38] This 'change', which was not available to same-sex PACS partners until 2013, accounts for a large share of dissolved unions, notably among couples who entered a PACS many years ago (between 2005 and 2013) and at young ages in the case of lesbian couples. A quarter of different-sex PACS partners in 2005–2007 were married 10 years later, and this proportion increases to 29% when both partners were under 35 when they entered the PACS union.

(38) Available divorce data do not provide information on what happens to couples who were in a PACS before they married.

Table 16. Proportion (%) of dissolved PACS unions (on 1 November 2017) by year of registration, age, and sex of partners

PACS cohort	Share of PACS unions dissolved by marriage			Share of PACS unions dissolved for reasons other than marriage			Distribution of PACS unions	
	Both partners under age 35	Both partners over age 35	Partners of all ages	Both partners under age 35	Both partners over age 35	Partners of all ages	Both under age 35	Both over age 35
	PACS union between 2 men							
1999–2004	11.4	25.5	18.8	63.4	23.8	42.1	32.6	41.2
2005–2007	14.0	21.7	17.7	49.2	19.8	34.6	31.1	42.1
2008–2010	17.0	19.3	17.4	40.9	17.5	28.7	29.7	45.9
2011–2013	15.3	13.4	14.0	31.2	14.1	23.2	34.8	40.0
2014–2016	5.6	4.1	5.0	15.4	7.6	12.3	41.6	34.8
	PACS union between 2 women							
1999–2004	12.6	19.1	16.6	71.9	30.5	49.4	34.7	47.7
2005–2007	22.5	20.4	21.3	55.3	23.6	39.6	37.4	42.3
2008–2010	25.2	17.8	21.7	47.6	24.0	36.1	37.8	44.0
2011–2013	26.3	14.3	21.4	38.2	17.3	28.8	44.2	38.2
2014–2016	11.4	4.9	9.4	21.1	9.5	16.5	51.2	33.0
	Different-sex PACS							
1999–2004	18.9	15.9	17.8	34.2	32.9	34.8	70.2	17.0
2005–2007	28.9	16.4	25.3	26.5	26.4	27.0	67.2	18.8
2008–2010	26.1	13.9	21.9	21.3	18.7	20.8	60.3	26.0
2011–2013	19.2	10.0	16.1	17.0	14.5	16.4	60.8	25.9
2014–2016	7.2	4.3	6.3	7.9	6.4	7.5	60.0	26.4

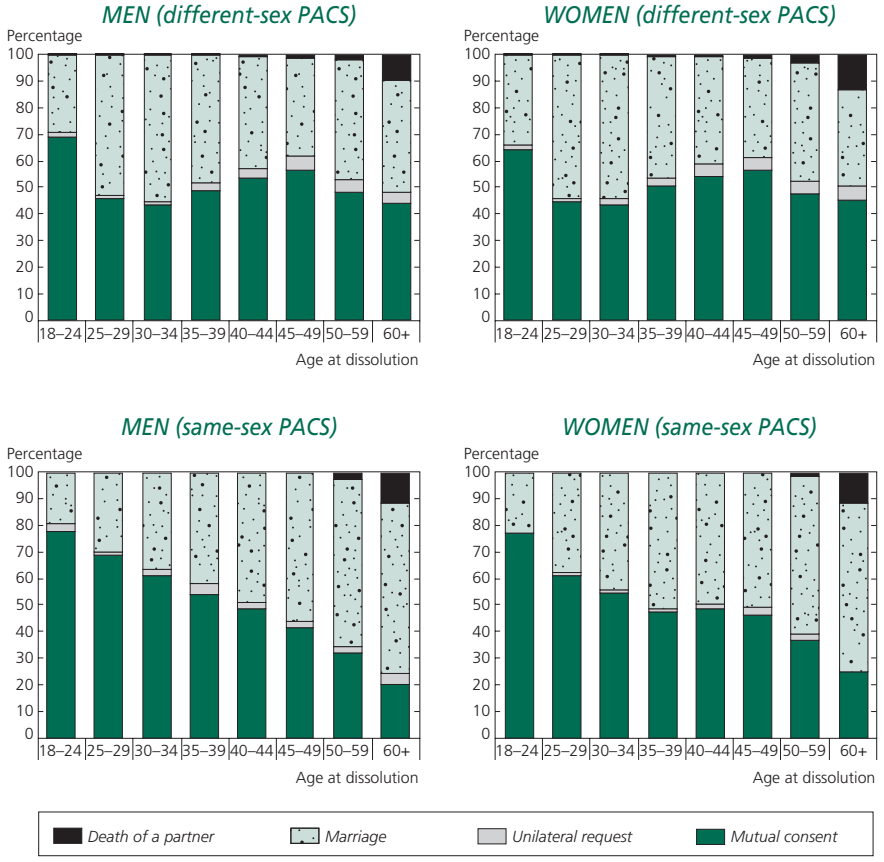
Interpretation: 11.4% of PACS unions concluded in 1999–2004 between two men aged under 35 were dissolved by a marriage before 1 November 2017.
Note: The partners' ages are those recorded at the time of PACS registration.
Coverage: Whole of France, situation on 1/11/2017 of unions registered between 15/11/1999 and 31/12/2016.
Source: Ministry of Justice, data obtained via the CASD.

With the divorce rate observed in the marriage cohorts (Appendix Table A.10B) and taking account of the PACS durations reached in 2017 by the different PACS cohorts (15 years on average for the 1999–2004 cohorts, 11 years for those of 2005–2007, 8 years for those of 2008–2010, etc.), the proportion of PACS unions dissolved for reasons other than marriage or death exceeds the rate of divorces at an equivalent marriage duration.

These differences in the outcomes of PACS unions confirm the atypical profiles of the earliest PACS partners, as already highlighted in previous studies with regard to educational level and occupational category (Bailly and Rault, 2013). People who entered a PACS in the early days (before 2005), notably the youngest among them, and independently of the partner's sex, married their PACS partner less often than those entering a PACS after 2005. This choice may reflect a stronger distaste for the institution of marriage. The PACS outcome thus varies considerably by the partners' age and sex. Older gay couples more often dissolved their PACS to marry, while different-sex couples more often married at a young age, shortly after concluding a PACS union.

Among those who dissolved their PACS after age 60, death is the most frequent reason for dissolution. In 2016, this reason accounted for 10% to 13% of dissolutions in this age group, depending on the partners' sex (Figure 20). For different-sex couples, marriage is the most frequent reason for dissolving a PACS union at ages 25–35. For same-sex couples, the rate of dissolution for reasons of marriage increases with age. For both gay and lesbian couples, 64% of the PACS unions that end after age 60 are dissolved for reasons of marriage. Conversely, for PACS unions dissolved at a young age, dissolution by mutual consent is the most frequent reason among same-sex couples, but only among the under-25s for different-sex couples. No more than 3% of all PACS unions are dissolved by unilateral request of one partner.

Figure 20. Distribution (%) of people who dissolved a PACS union in 2016 by sex, age at dissolution, and reason



Interpretation: 69% of men aged 18–24 in a different-sex PACS union who dissolved their union in 2016 did so by mutual consent.

Coverage: PACS unions dissolved in 2016.

Source: Ministry of Justice, data obtained via the CASD.

4. Unions in France and Europe

Fewer, later marriages in France

The decline in marriage and the changing partnership behaviours observed in France are part of a well-documented overall trend that began in Northern Europe in the 1970s (Sardon, 2006; Sobotka and Toulemon, 2008; Avdeev et al., 2011). The timing of these changes varied across European countries, leading to large disparities in first-marriage rates in the 1980s and 1990s (Sardon, 1992), with the Scandinavian model at one extreme and the Mediterranean model at the other (Prioux, 2006a). With marriage in sharp decline (decrease in the share of persons ever-married at age 50, ever-later age at marriage, widespread non-marital cohabitation), France is moving closer to the Scandinavian model.

Recent first-marriage indicators (Table 17) reveal a contrast between the countries of Southern and Western Europe, on the one hand, and of Eastern Europe, on the other. In 2017, the total period first-marriage rate does not exceed 0.5 first marriages per person in France (for men and women alike), and age at marriage is quite high in France, Spain, Italy, the United Kingdom, the Benelux countries, and Slovenia. In these countries, age at first marriage is over 30 years for women and 33 for men. France is moving away from the countries of Northern Europe, however, where total period first-marriage rates have increased in recent years (0.57 in Sweden and 0.65 in Denmark). The countries of Eastern Europe are very distinctive, with a relatively high total period first-marriage rate and an age at first marriage that remains low despite a clear trend towards postponement.

In some countries, the total period first-marriage rate is very high (Latvia, Romania, and Slovakia) and in others very low (Luxembourg), depending on the direction of migration flows. Marital mobility enables immigrant couples to marry in their home country, while other couples prefer to marry abroad (lately in Greece, around 10% of marriages concern non-residents, on the Greek islands especially). These phenomena have a clear impact on total period first-marriage rates based on marriages registered in the country of residence, pushing them up in high-emigration countries and down in high-immigration countries. The rapid changes in marriage timing and the sharp increase in age at first marriage from the 1990s in countries where people traditionally married young (Eastern Europe) may also explain the recent increase in the total period first-marriage rate through a catch-up process of younger cohorts marrying at later ages. A longitudinal analysis of first marriages would be needed to confirm these hypotheses.

Although difficult to verify, the existence of the PACS since 1999 in France may have exacerbated the marriage decline by enabling couples to choose an alternative way to formalize their union. Alongside France, the Netherlands is the only other European country where all couples, including different-sex couples, can choose between marriage and civil partnership (known as a registered partnership in the Netherlands) to formalize their union.

Table 17. First-marriage indicators in EU countries in 2010 and 2017

Country	Total first marriage rate				Mean age at first marriage (years)			
	Men		Women		Men		Women	
	2010*	2017**	2010*	2017**	2010*	2017**	2010*	2017**
Belgium	0.42	0.42	0.44	0.43	31.7	33.5	29.4	31.2
Bulgaria	0.38	0.53	0.42	0.62	29.8	30.6	26.6	27.3
Czech Republic	0.41	0.54	0.46	0.60	30.8	31.8	27.9	29.1
Denmark	0.66	0.65	0.68	0.66	33.6	34.8	31.2	32.4
Germany	0.54	0.58	0.57	0.62	32.9	34.0	30.2	31.2
Estonia	0.38	0.48	0.38	0.54	30.5	32.2	28.0	29.7
Ireland	—	0.60	—	0.59	33.1	33.8	31.3	32.0
Greece	0.58	0.65	0.67	0.70	32.6	33.3	29.3	30.3
Spain	0.38	0.44	0.42	0.48	33.1	35.4	30.9	33.2
France	0.49	0.47	0.49	0.46	32.8	34.4	30.7	32.2
Croatia	0.63	0.67	0.67	0.72	30.0	31.0	27.1	28.2
Italy	0.48	0.45	0.53	0.48	33.2	35.0	30.3	32.2
Cyprus	—	—	—	—	—	—	—	—
Latvia	0.39	0.70	0.41	0.76	29.4	31.5	27.1	28.9
Lithuania	0.61	0.86	0.62	0.90	28.7	30.5	26.5	27.8
Luxembourg	0.35	0.31	0.39	0.34	32.8	34.0	30.2	31.6
Hungary	0.36	0.59	0.39	0.65	31.2	32.3	28.3	29.4
Malta	0.78	—	0.84	—	31.3	—	28.6	—
Netherlands	0.52	0.45	0.53	0.45	32.4	33.9	29.8	31.4
Austria	0.48	0.58	0.50	0.61	—	34.2	—	31.5
Poland	0.64	0.59	0.68	0.64	28.4	29.6	26.1	27.3
Portugal	0.43	0.42	0.47	0.44	29.9	32.5	27.7	30.7
Romania	0.70	0.93	0.77	1.05	29.0	31.0	25.6	27.5
Slovenia	0.37	0.41	0.42	0.47	31.7	32.9	29.0	30.4
Slovakia	0.48	0.65	0.52	0.72	30.0	31.2	27.2	28.6
Finland	0.64	0.51	0.70	0.53	32.5	33.9	30.2	31.6
Sweden	0.59	0.57	0.66	0.58	35.6	36.6	32.7	33.8
United Kingdom	0.46	0.49	0.50	0.50	—	33.4	—	31.5

* 2011 data for Germany and Austria, 2008 data for the United Kingdom.
** 2016 data for Estonia, and 2015 data for Ireland, France, and the United Kingdom.
Source: Eurostat data, site accessed July 2019.

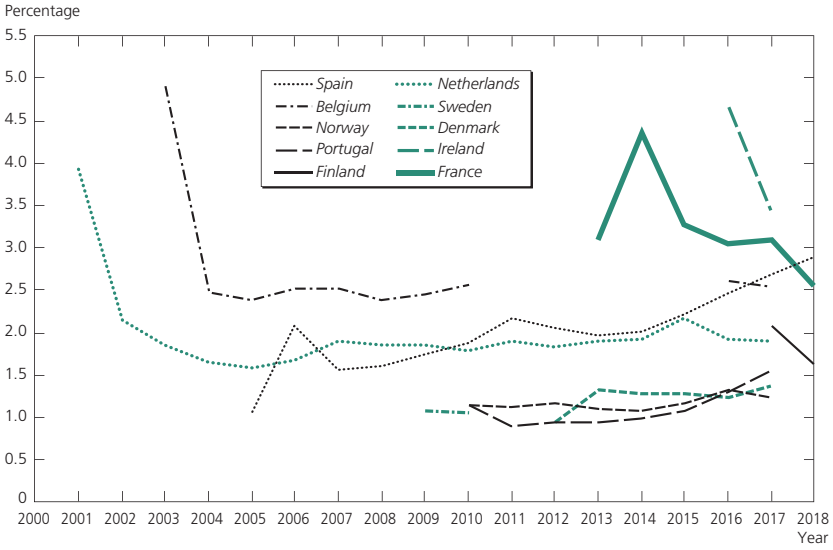
A high rate of same-sex marriages in France

With 3.1% of marriages between partners of the same sex in 2017, the rate of same-sex marriages in France is quite high relative to other European countries where same-sex marriage is legal.[39] The proportion ranges between around

(39) Same-sex couples are able to marry in 14 of the 28 EU countries. The Netherlands was the first country to legalize same-sex marriage in 2001, followed by Belgium (2003), Spain (2005), Sweden (2009), the United Kingdom (2014), Ireland (2015), Germany, Finland, Luxembourg and Malta (2017), and Austria (2019). Other forms of partnership or civil union, distinct from marriage, exist in other countries, or are currently under discussion (Italy, Greece, and Slovenia, among others).

1% and 4% of all marriages (Figure 21), and same-sex marriages are generally most frequent in the years following legalization, when existing couples are able to formalize a long-standing union, except in certain countries (Spain and Portugal) where the share has increased steadily over the years (Cortina et al., 2013). The high level in France is all the more remarkable given that a choice between marriage and PACS, which also provides considerable protection and benefits, is available to all couples wishing to formalize their union.

Figure 21. Share (%) of same-sex marriages among total marriages in selected European countries



Source: Statistics obtained from the websites of national statistical offices, authors' calculations.

In most countries, notably those of Northern Europe, lesbian couples account for more than half of the same-sex couples who marry. This is not yet the case in France, although their share is tending to increase (from 41.5% in 2013 to 49.8% in 2017). A similar increase has been observed in Spain and the Netherlands. In Finland, Denmark, and Sweden, a large majority of same-sex marriages are between women, encouraged perhaps by these countries' more progressive gender norms and more egalitarian gender relations.

A relatively high rate of divorce in France

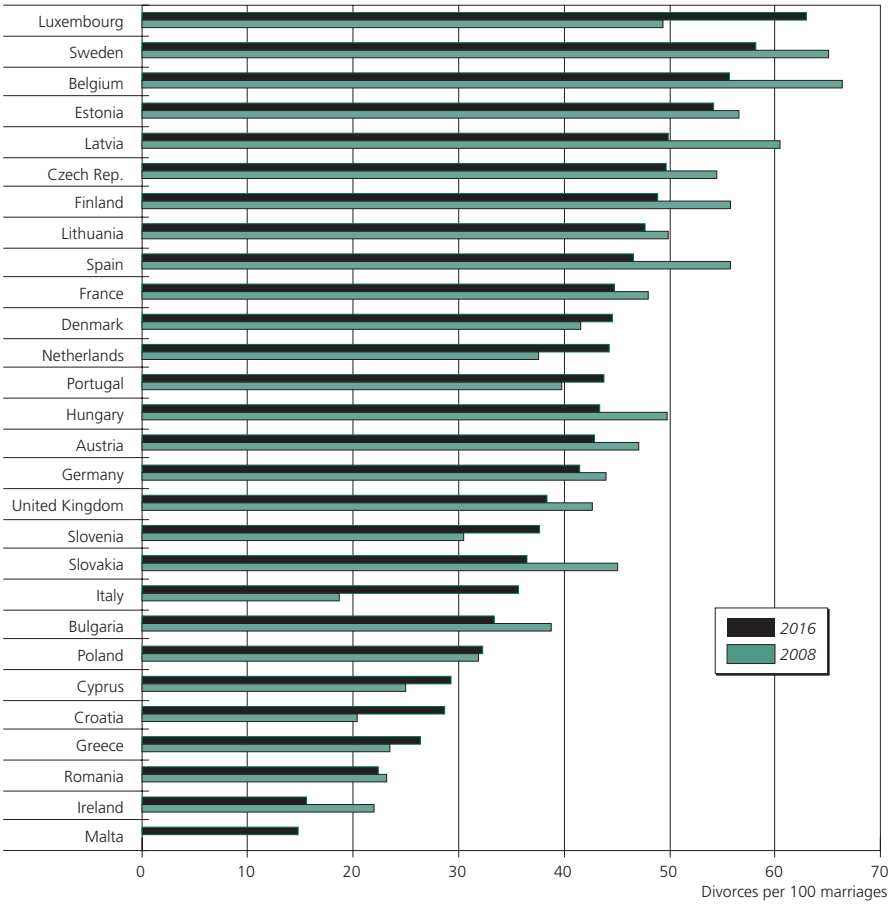
Up to the early 2000s, divorce increased more slowly in France than in other European countries, and levels were below those observed in the pioneer countries of Northern Europe (Sweden and Denmark), the Baltic countries, and the United Kingdom, where the total period divorce rate[40] exceeded 40 divorces per 100 marriages from the early 2000s (Prioux, 2006b; Sardon, 2006).

(40) Sum of divorce rates by marriage duration (up to durations where divorce becomes rare, 45 years in general), generally calculated with respect to the initial number of marriages.

Because the annual distribution of divorces by marriage duration is not known for all countries, we estimate here a total divorce rate for each country as the ratio of the mean number of divorces (averaged over 3 years) to the mean number of marriages registered in the country between 14 and 10 years previously (divorce occurs at a marriage duration of around 12 to 15 years on average).[41] With a more appropriate denominator, this indicator is more meaningful than a crude divorce rate, even if the migration of married couples is liable to introduce bias.

In recent years, divorce rates have been generally high in France but remain lower than those of the Northern European and Baltic countries, despite a decrease in the total divorce rate between 2008 and 2016 in many of these countries where divorce was very frequent (Figure 22). The rankings remain

Figure 22. Divorce indicator in the European Union, 2008 and 2016



Note: Ratio of mean number of divorces in years $t-1$ to $t+1$ to the mean number of marriages in years $t-14$ to $t-10$.
Source: Eurostat data, site consulted in July 2019, authors' calculations.

(41) Applying the principle of mean cohort size (simplified here) as defined by G. Calot (1984).

relatively unchanged, however, even though divorce has increased rapidly in some countries where it was once rare, such as Spain and Portugal. While it would be overstating the case to talk about a convergence of divorce behaviours, major legislative changes in countries traditionally opposed to divorce are leading to a rapid increase in divorce numbers. This is the case in certain countries of Southern Europe (Croatia and Slovenia) and notably in Italy, where the divorce rate has increased from 18% to 35% within a few years in response to two successive reforms in 2014 and 2015 (simplification of procedures and shorter waiting time between separation and divorce). A similar law was voted in Ireland in 2019, and its effects may well be the same. But the trend is towards a decrease in divorce in most other countries, including France.

VI. Mortality

1. Characteristics of mortality

A steady increase in deaths over the last 15 years

According to provisional estimates, deaths in 2018 totalled 614,000 for the whole of France, of which 601,000 in metropolitan France and 13,000 in the overseas departments, topping the threshold of 600,000 in metropolitan France for the first time since the Second World War. Between the 1950s and the early 2000s, the figure oscillated between 500,000 and 575,000. Mortality peaked in 1969 after a flu epidemic caused 30,000 deaths, largely because no effective vaccine existed. Another severe health crisis due to the 2003 heatwave raised the number in that year to 552,339.[42] A sharp dip was observed in 2004 with 509,429, but the figure has since been increasing steadily (Pison and Toulemon, 2016) (Figure 23).

The increase in deaths is mostly due to the ageing of the large cohorts born after the Second World War. Births in metropolitan France peaked in 1949, when 872,661 were recorded. This birth cohort's members will reach age 87, the modal age at death, in 2036. The current upward trend in deaths is thus likely to continue over the coming years, unless life expectancy changes considerably.

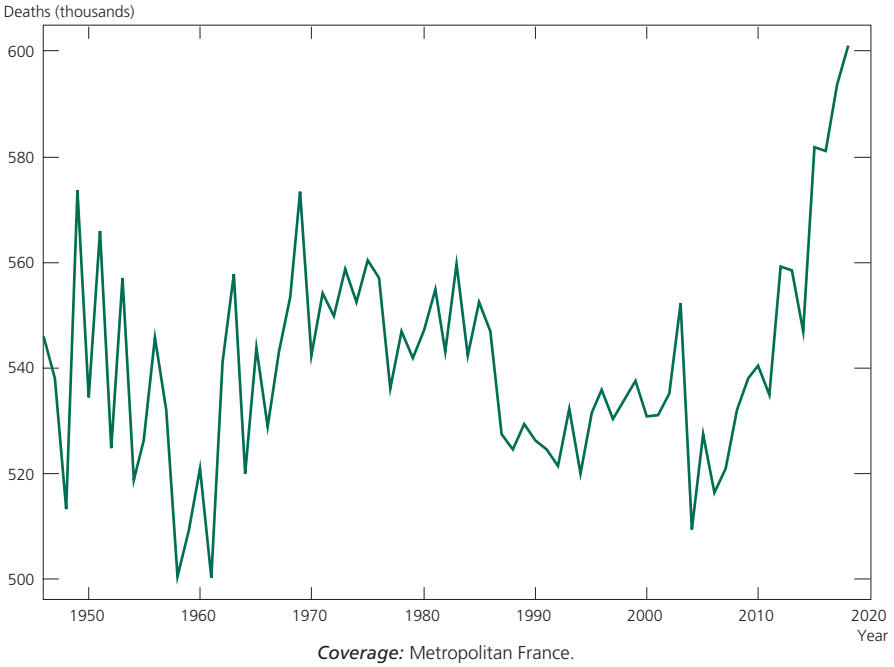
A slower increase in life expectancy

While life expectancy at birth rose between 2017 and 2018, reaching 79.5 years for males and 85.4 years for females in metropolitan France (79.4 and 85.3 years for the whole of France), the rate of increase has slowed recently. Independently of the excess mortality observed in 2015 due to a severe flu epidemic,[43] life expectancy has increased more slowly in the last decade than

(42) 562,467 for the whole of France.

(43) Mean length of life decreased by almost 4 months in 2015. Life expectancy returned to its previous level in 2016 for males, but not until 2018 for females.

Figure 23. Total annual deaths in metropolitan France, 1946–2018



Coverage: Metropolitan France.
Source: INSEE, Demographic Surveys and Studies Division.

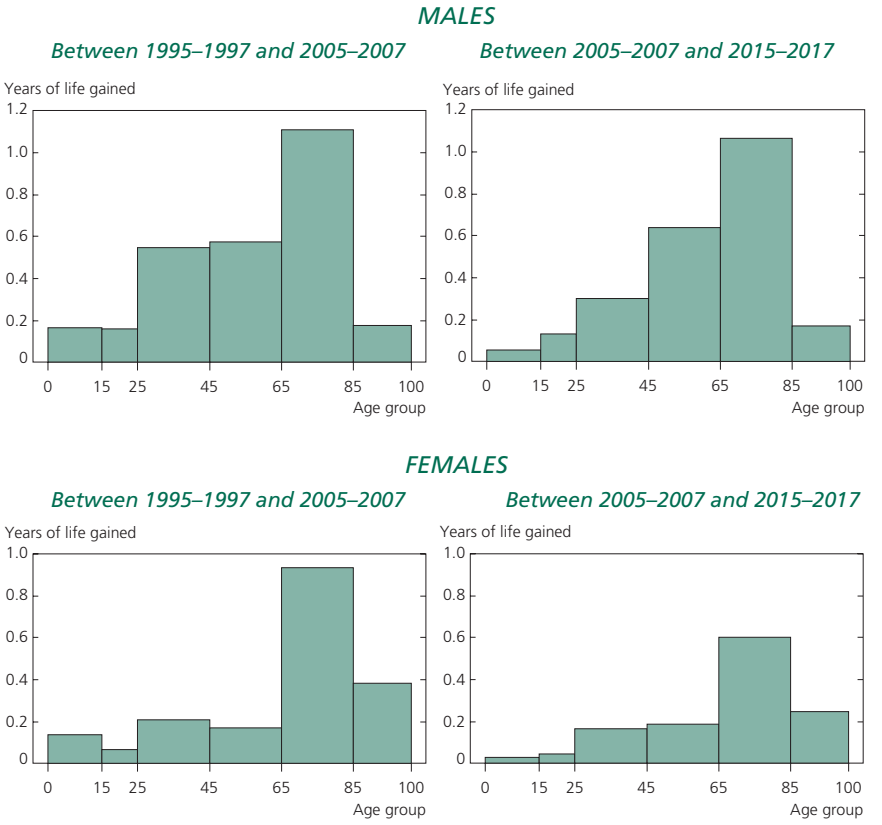
in the previous one, for females especially. In metropolitan France, life expectancy at birth rose by 1.9 years for males and 1.0 years for females between 2008 and 2018 versus 2.8 years and 2.0 years between 1998 and 2008. To understand the reasons for this slowdown, we analysed the pattern of gains in life expectancy at birth by age group using INSEE's 3-year life tables, the most recent of which corresponds to the period 2015–2017 (Figure 24).

Before age 45, gains were halved for both sexes between 2005–2007 and 2015–2017 compared to the previous decade (0.48 vs. 0.87 years for males and 0.23 vs. 0.42 years for females). Beyond age 45, gains were identical for males over both periods but fell from 1.5 to 1.0 years for females. As a result, France is not performing as well as its European neighbours in terms of premature mortality, despite its high ranking for life expectancy at birth.

2. France well placed in Europe for life expectancy

In 2017, the most recent year for which comparative data are available, France still ranked among the top third of European countries in life expectancy at birth for both sexes combined (Appendix Table A.12). Its position has not changed notably over the last 15 years. It remains a European leader for female life expectancy at birth (85.2 years), alongside Italy and just behind Switzerland (85.6) and Spain (86.1).

Figure 24. Decomposition of life expectancy gains by age group for males and females



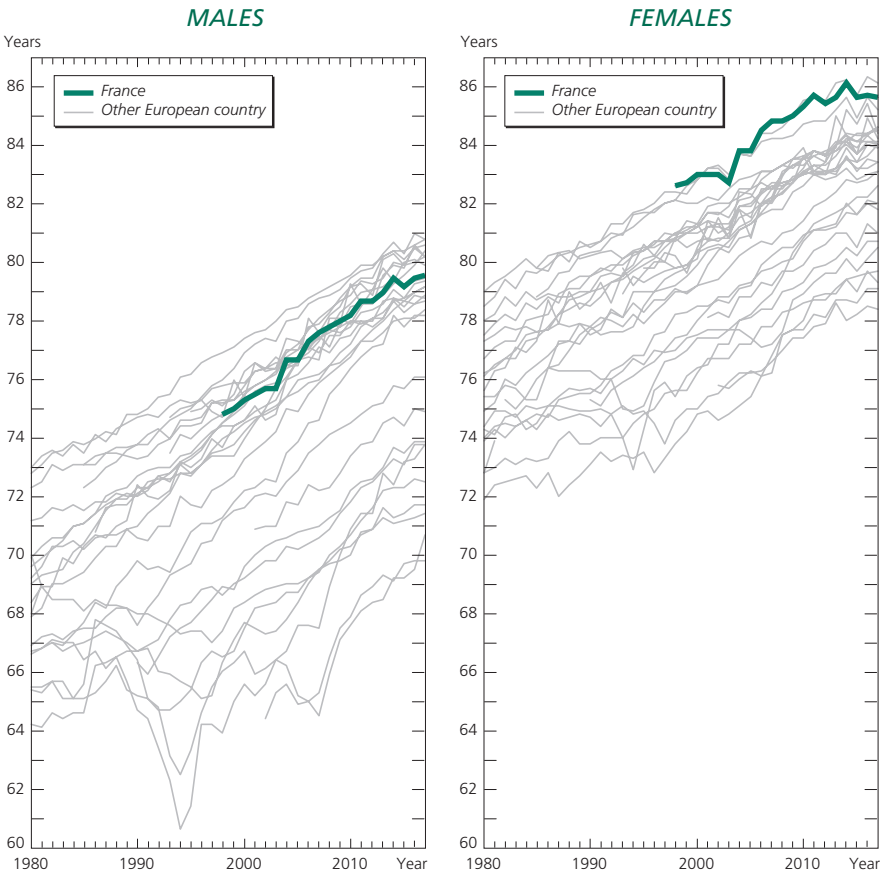
Coverage: Metropolitan France.
Source: INSEE, Demographic Surveys and Studies Division.

France is less well placed for males, ranking 9th among the 28 EU members in 2019 (Figure 25). With a male life expectancy at birth of 79.4 years, it trails Switzerland (the European leader, which holds the record at 81.6) and is outranked by several countries of Western Europe (Ireland, Luxembourg, the Netherlands, and Switzerland), Northern Europe (Iceland, Norway, and Sweden), and even Southern Europe (Spain and Italy), a region that had long lagged behind. However, like Austria and the United Kingdom, France ranks above all the countries of Eastern Europe and even above several other economically prosperous countries such as Belgium, Denmark, and Germany.

High premature mortality

Analysis of mortality by age group shows that France is well placed for survival at older ages but is below the mean for mortality before age 65. It performs poorly for mortality of children under 15, holding 19th place for boys

Figure 25. Male and female life expectancy at birth in France and in other countries of the European Union, 1980–2017



Coverage: European Union members in 2019 (including the United Kingdom).
Source: Eurostat database, https://ec.europa.eu/eurostat/data/database (accessed 17 July 2019).

and 20th place for girls in 2017 (out of 28 countries ranked by increasing order of probability of dying in each age group). While France ranked 7th in 2005 (6th for girls, 8th for boys), it has gradually lost ground over the last decade or so, due mainly to a lack of progress in infant mortality. While deaths before age 1 have continued to fall in other European countries, they have stagnated in France. The infant mortality rate was estimated at 3.9 per 1,000 in 2017 for the whole of France (3.6 per 1,000 in metropolitan France), while in 11 other EU-28 countries, excluding Eastern Europe and with the notable exception of the United Kingdom, the rate was below 3.0 per 1,000.

France ranks slightly better for mortality at ages 15–24, 25–44, and 45–64 but is below the median (14th, 17th, and 15th positions for men; and 15th, 16th, and 12th for women) (Table 18). Its position has been relatively stable

Table 18. Probability of dying and life expectancy at age 85 in EU-28 countries, males and females, 2017

Males							
Country	Probability of dying (per 1,000)						Life expectancy at age 85
	Before age 1	At ages 1–14	At ages 15–24	At ages 25–44	At ages 45–64	At ages 65–84	
Bulgaria	6.9	3.7	6.9	37.0	242.9	747.2	4.6
Croatia	4.7	2.2	5.4	22.3	172.4	687.1	5.0
Cyprus	1.3	1.5	4.0	13.8	92.5	522.4	5.3
Hungary	3.9	2.2	4.6	26.6	244.5	729.9	5.2
Slovakia	5.2	2.6	6.3	28.7	198.4	700.0	5.3
Lithuania	2.9	3.2	7.6	63.7	250.2	724.7	5.1
Latvia	4.5	2.8	9.8	64.3	269.7	743.7	5.2
Romania	7.6	3.5	7.2	35.8	248.1	727.8	5.5
Czech Republic	3.1	1.7	5.4	22.9	152.1	651.4	5.3
Greece	3.4	1.7	5.1	20.0	127.1	546.0	6.6
Netherlands	3.9	1.6	3.4	14.1	88.4	531.9	5.8
Austria	3.0	1.7	4.2	16.7	107.0	534.2	6.1
Denmark	4.2	1.4	3.6	14.9	110.1	551.6	5.7
Germany	3.5	1.4	3.5	17.5	121.0	558.7	5.9
Sweden	2.4	1.2	4.7	17.6	78.7	499.4	5.7
Poland	4.6	1.8	6.7	36.9	204.6	665.4	5.9
United Kingdom	4.2	1.5	3.8	22.0	103.0	529.7	6.2
Portugal	3.0	1.8	3.8	20.7	131.8	545.9	5.7
Estonia	2.7	1.8	6.3	41.5	198.2	681.0	5.8
Ireland	2.8	1.1	3.4	17.1	86.4	529.0	6.3
Slovenia	2.0	0.9	3.9	17.6	129.0	588.6	5.7
Malta	8.0	1.2	4.3	15.2	84.7	508.2	5.9
Finland	2.1	1.4	6.3	23.9	112.6	544.1	6.1
Belgium	3.9	2.0	4.2	20.1	108.7	537.3	6.1
Italy	2.8	1.4	3.4	13.5	85.5	506.3	6.1
Luxembourg	4.8	1.2	4.7	13.0	91.6	528.0	6.5
Spain	2.9	1.3	2.8	13.5	101.3	504.9	6.6
France	4.3	1.7	4.6	22.2	121.9	483.8	6.7

Note: In order of countries' life expectancy of women.
Coverage: EU-28 in September 2017.
Source: Eurostat, ec.europa.eu/eurostat/data/database, data downloaded on 16 July 2019.

since 1980, except in female mortality at ages 45–64, which has declined much more slowly than in many other European countries. In the first half of the 2000s, France still ranked 5th or 6th for the female probability of dying in late middle age but has now fallen to 12th place (15th for men in 2000 and in 2017, with little fluctuation over the period).

Table 18 (cont'd). Probability of dying and life expectancy at age 85 in EU-28 countries, males and females, 2017

Females							
Country	Probability of dying (per 1,000)						Life expectancy at age 85
	Before age 1	At ages 1–14	At ages 15–24	At ages 25–44	At ages 45–64	At ages 65–84	
Bulgaria	5.8	2.1	3.1	17.7	112.6	582.9	5.2
Croatia	3.3	2.1	1.5	10.2	77.0	524.6	5.6
Cyprus	1.3	2.4	1.0	6.6	47.4	367.4	5.6
Hungary	3.0	2.1	1.7	13.3	117.1	549.6	5.9
Slovakia	3.8	1.8	2.1	12.6	87.6	517.2	5.9
Lithuania	2.8	1.5	2.8	21.1	92.6	486.0	6.0
Latvia	3.5	1.7	3.9	20.8	103.4	512.2	6.0
Romania	6.0	2.8	2.6	15.8	106.0	568.6	6.0
Czech Republic	2.2	1.2	2.1	9.9	72.2	472.2	6.1
Greece	3.3	1.5	1.5	8.1	57.0	390.0	6.4
Netherlands	3.1	1.2	1.6	9.1	66.7	398.3	6.6
Austria	2.9	1.2	1.6	8.6	58.3	378.6	6.6
Denmark	3.3	0.8	1.4	8.5	68.4	423.1	6.7
Germany	3.0	1.3	1.7	9.2	67.1	397.3	6.7
Sweden	2.3	1.1	1.8	8.4	54.0	386.3	6.8
Poland	3.7	1.5	2.3	11.9	86.7	459.0	6.9
United Kingdom	3.4	1.2	1.8	12.4	68.3	412.0	6.9
Portugal	2.2	1.3	1.9	10.2	55.1	358.7	7.0
Estonia	1.8	2.0	3.0	11.6	76.8	437.2	7.0
Ireland	3.2	1.0	1.5	8.9	56.8	396.8	7.0
Slovenia	2.1	1.1	2.5	7.5	64.3	394.1	7.2
Malta	4.6	1.4	1.2	6.6	58.6	367.0	7.3
Finland	1.8	1.4	2.8	10.0	56.7	368.9	7.3
Belgium	3.2	1.3	2.0	10.3	67.0	376.4	7.4
Italy	2.6	1.1	1.4	7.4	49.7	349.2	7.4
Luxembourg	1.7	1.6	1.1	8.1	57.4	390.6	7.7
Spain	2.4	1.2	1.4	7.3	49.3	314.2	7.9
France	3.8	1.3	1.8	10.1	61.5	305.0	8.2

Note: In order of countries' life expectancy of women.
Coverage: EU-28 in September 2017.
Source: Eurostat, ec.europa.eu/eurostat/data/database, data downloaded on 16 July 2019.

Lower old-age mortality than in other European countries

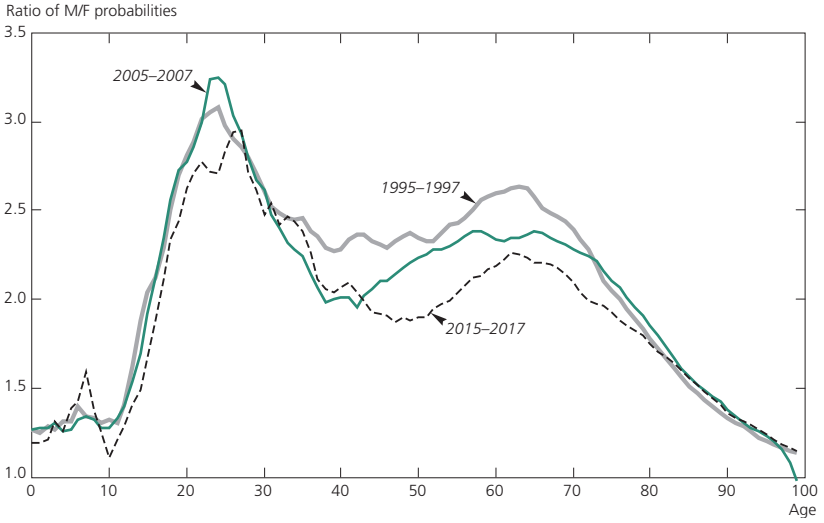
By contrast, mortality at ages 65 and older is low in France compared to other European countries. It ranks first not only for survival at ages 65–84 but also for life expectancy at age 85 for men and women alike (Table 18). But

unlike mortality at younger ages, for which progress has slowed considerably in most European countries, mortality at ages 65–84 has plummeted almost everywhere over the last 20 years. This means that France is closely followed by a large group of countries, especially if we exclude the countries of Eastern Europe that are trailing their Western neighbours. The mortality decline at ages 65–84 alone is responsible for almost half the progress in life expectancy at birth achieved over the last decade.

A narrowing of the life expectancy gender gap

The gender gap in life expectancy (5.8 years in 2017) is still wider in France than in most other European countries except Croatia (6.1 years), Portugal (6.2 years), and those of Eastern Europe, where it ranges between 5.9 years in the Czech Republic and 9.9 years in Latvia (Appendix Table A.12). After reaching more than 8 years between 1976 and 1996, the gap has narrowed since the mid-1990s, however, due to a slowing of progress in female life expectancy (Meslé, 2006). Compared with 1992, when the gender gap was at its widest (8.3 years), men can expect to live 6.3 years longer and women just 4.0 years longer. Changes in the mortality gender gap by age across successive 10-year periods reveal a converging trend (Figure 26).

Figure 26. Excess male mortality by age in 1995–1997, 2005–2007, and 2015–2017



Coverage: Metropolitan France.
Source: INSEE 3-year life tables, Demographic Surveys and Studies Division.

Female mortality is lower than male mortality at all ages, but the gender gap varies considerably over the lifespan. For the two periods (1995–1997 to 2005–2007 and 2005–2007 to 2015–2017), the female advantage is especially pronounced at young adult ages (with a male excess mortality risk of more

than 3.0 around age 25). It is also high around ages 60–65, with a ratio of more than 2.0 between ages 55 and 70. The gender gap is small, on the other hand, at the beginning and end of life, with a ratio of less than 1.2 in the first 2–3 years of life and after age 95. The ratio of probabilities has nonetheless decreased at all ages below 80, especially between ages 35 and 70 (when the difference between the curves corresponding to 1995–1997 and 2015–2017 in Figure 26 is largest).

The narrowing of the life expectancy gender gap is due primarily to slower progress in reducing cancer mortality among women than among men. This trend is linked to gender differences in smoking behaviour. While the proportion of male smokers has been falling since the 1970s, it increased steadily among women until the 2010s. This narrowing is also due to a decline in deaths from external causes (road traffic accidents, suicides, and homicides), which has mainly benefited men, whose mortality rates from these causes were previously much higher than those of women (Breton et al., 2018).

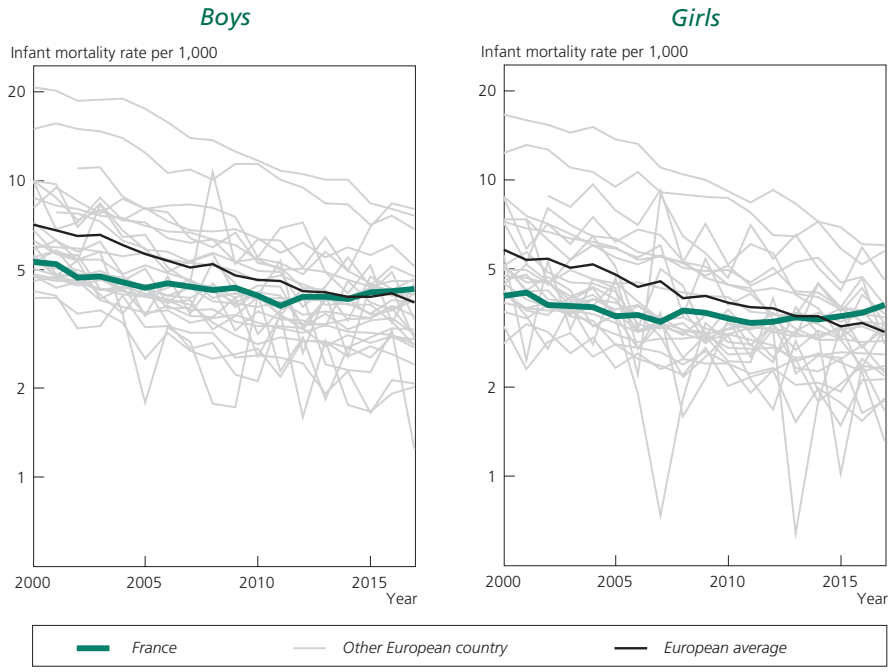
3. A stagnation of infant mortality in France

As mentioned earlier, France is well down in the European rankings for child mortality, and this poor performance is due mainly to infant mortality (before age 1), which accounts for 65%–70% of overall mortality before age 15. Over the last 12 years or so, the probability of dying before age 1 has fluctuated around 3.7 per 1,000 births in France (3.5 per 1,000 in metropolitan France). In the early 2000s, the infant mortality rate in France was around 25% below the EU-28 average, but by 2017 it was slightly above, most other countries having achieved further progress in this area (Figure 27). In the Scandinavian countries (Finland, Iceland, Norway, and Sweden), where infant mortality rates are lowest, the probability of dying in the first year of life fluctuates around 2.0–2.5 per 1,000 births (Appendix Table A.13).

The lack of progress concerns all components of infant mortality to varying degrees (Figure 28; Appendix Table A.11). After falling to a record low in 2005, at 1.55 per 1,000 births in metropolitan France,[44] early neonatal mortality (death in the first week of life) has increased steadily, reaching 1.85 per 1,000 in 2017. Late neonatal mortality (death in the 3 following weeks) has remained stable, at around 0.80 per 1,000, since 2000. Post-neonatal mortality (from the fifth week to the first birthday) fell progressively to a low of 3.3 per 1,000 in 2011 but has been rising steadily, reaching 3.6 per 1,000 in 2017. The increased contribution of mortality in the first week of life to total infant mortality (50% in 2017) is the result of these distinct trends that have not been studied in detail and whose determinants remain poorly understood (Papon, 2018).

(44) Long time series are available only for metropolitan France.

Figure 27. Infant mortality rate in France and other EU-28 countries



Coverage: EU-28 in 2019 (including the United Kingdom).
Source: Eurostat, https://ec.europa.eu/eurostat/data/database (accessed 17 July 2019).

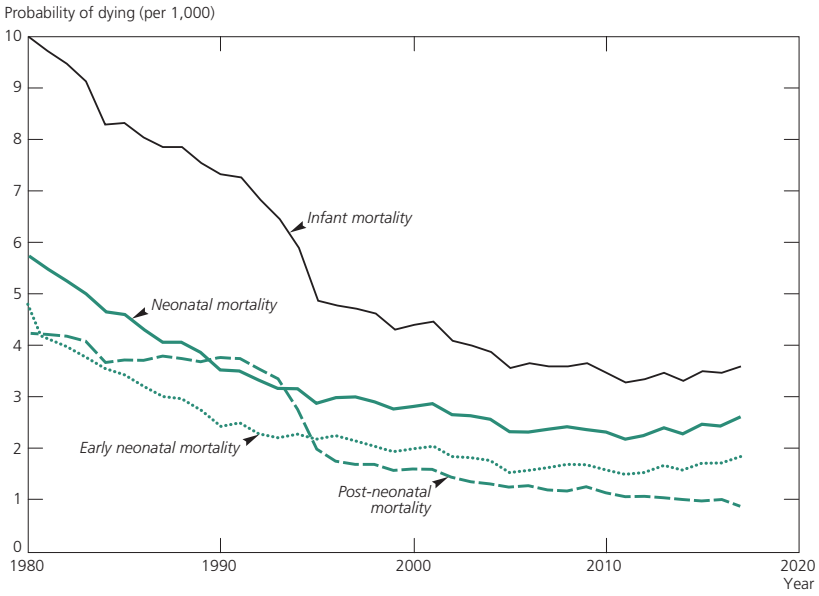
4. Causes of death in France: a comparative perspective

The following analyses are based on World Health Organization data for the distribution of deaths by cause, and on Eurostat data for all-cause mortality rates. For France, INSERM (CépiDc) and INSEE data are also used. As long time series of mortality by cause are not available for the overseas departments, only metropolitan France is covered here. The comparison covers 2000–2015, a period for which we could obtain the necessary information for most EU-28 countries apart from Cyprus, Luxembourg, Portugal, and Slovakia. To facilitate comparison, deaths from ill-defined causes were redistributed proportionately for each country by year, sex, and age group. The proportion of deaths from ill-defined causes ranges from 0% to 11% (the highest figure is recorded in France), with a median at 2.2% and an interquartile difference of 2.7%.

Very low cardiovascular mortality in France

Cardiovascular disease, the leading cause of death in Europe, accounts for 45% of all-cause mortality (50% for women, 40% for men), with three-quarters of cardiovascular mortality attributable to heart diseases. Mortality from this cause in France is particularly low compared to its European neighbours.

Figure 28. Trends in infant mortality and its components in metropolitan France since 1980



Coverage: Metropolitan France.
Source: INSEE, *Situation démographique en 2017*, Table 70.

While the mean rate was 500 deaths per 100,000 population for Europe as a whole in 2015, France recorded a level of just 220 per 100,000. France is slightly ahead of Spain for men, but more markedly so for women, with a rate of 180 per 100,000 in France versus 215 per 100,000 in Spain. Mortality from ischaemic heart disease is particularly low in France, with a rate 4 times below the European average in 2015.

In France, as elsewhere (Ouellette et al., 2014), the decrease in cardiovascular mortality has been the main factor driving progress in life expectancy at birth over the last 50 years. Over the period 2000–2015, the decline in deaths from these diseases accounted for 35% of total life expectancy gains in France for men and 51% for women, i.e. one-third of the 4.0 years gained by men and half of the 2.5 years gained by women (Appendix Table A.14). The age-standardized mortality rate from cardiovascular diseases fell by 40% over this period for men and women alike. Because of this steep decline, cardiovascular diseases have been overtaken by cancers as the leading cause of death in France. But despite the steady decrease in smoking in most European countries, progress in the fight against cancer is slowing in Europe, perhaps due to the increased prevalence of risk factors such as diabetes and obesity (Wilkins et al., 2017).

A French advantage for female cancer mortality

Cancer has been the leading cause of death in France since the 1990s. Only three other European countries—Denmark, the Netherlands, and the United Kingdom—are in a similar situation. This is not due to high levels of cancer mortality (except in Denmark and, to a lesser extent, the United Kingdom), but rather to low cardiovascular mortality. For men, cancer mortality in France is close to the European average, and the trend is slightly more favourable than elsewhere. The age-standardized rate fell below the European average in 2008–2009 and was just below it in 2015 (385 vs. 390 per 100,000). French female cancer mortality rates are relatively lower, but the age-standardized rate for women is falling slowly, so their advantage is shrinking: between 2000 and 2015, it fell by just 6% versus more than 20% for men.

Stomach cancer mortality is much lower in France than in the rest of Europe, with an age-standardized rate at just half the European average for both sexes. Likewise, cancers of the uterus, prostate, and colorectum are 20% below the European average. For smoking-related cancers, primarily of the lungs and upper aerodigestive tract, French rates are around the European average, and the increase in female lung cancer deaths is the main factor holding back progress in female cancer mortality in France. Last, oesophageal cancer mortality is around 10% higher than the European average, as is female breast cancer mortality, despite a steady decline since 1990.

Mortality from other diseases very close to the European average

For all other diseases (excluding cancers, cardiovascular diseases, and deaths from external causes), total mortality in France corresponds exactly to the European average for both males and females, with an age-standardized rate of 280 per 100,000 in 2015 for both sexes combined (240 for females and 340 for males). Its relative position varies by type of disease, however. While France has a small advantage for respiratory diseases (the age-standardized rate represented 80% of the European average in 2015) and digestive diseases (85% of the European average), mortality from infectious diseases is slightly above the European average (by 10%), but with little impact on overall mortality because deaths from this cause are rare in all countries.

A contrasting situation by sex for deaths from external causes

The age-standardized rate of deaths from external causes is close to the European average for men. However, this average is distorted by the singular situation in the Baltic countries (Estonia, Latvia, and Lithuania) where external-cause mortality is much higher than elsewhere. In 2000, the rate in these countries stood at 250 per 100,000 compared with a European average of 125 per 100,000 and a rate of 115 per 100,000 in France. It has since fallen rapidly, moving closer to the European average. Lithuania remains a European outlier, with a rate that was still close to 200 per 100,000 in 2015.

France is less well placed for females, with an age-standardized death rate from external causes among the highest in Europe (excluding the Eastern European countries). At 40 per 100,000 (compared with a European average of 32 per 100,000), the rate is nonetheless much lower than that of males. This relative excess mortality in France is not attributable to homicides (whose rate is just 50% of the European average) or road traffic accidents (80% of the European average), but to suicides (20% above the European average) and accidental deaths other than road deaths.

Appendix

Table A.1. Population change (in thousands) and crude rates (per 1,000)

	Numbers												Crude rates (per 1,000)							
	Mid-year population		Births		Deaths		Natural increase		Net migration		Total change		Births		Deaths		Natural increase		Total increase	
	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France	Metro. France	Whole of France
1985	55,284	56,582	768	796	552	560	216	236	38	39	254	275	13.9	14.1	10.0	9.9	3.9	4.2	4.6	4.9
1990	56,709	58,138	762	793	526	534	236	259	80	77	316	336	13.4	13.6	9.3	9.2	4.1	4.4	5.6	5.8
1995	57,844	59,384	730	759	532	540	198	219	40	42	238	261	12.6	12.8	9.2	9.1	3.4	3.7	4.1	4.4
2000	59,062	60,725	775	807	531	541	244	266	70	72	314	338	13.1	13.3	9.0	8.9	4.1	4.4	5.3	5.6
2001	59,476	61,163	771	803	531	541	240	262	85	87	325	349	13.0	13.1	8.9	8.8	4.1	4.3	5.5	5.7
2002	59,894	61,605	762	793	535	545	227	248	95	97	322	345	12.7	12.9	8.9	8.8	3.8	4.1	5.4	5.6
2003	60,304	62,038	761	793	552	562	209	231	100	102	309	333	12.6	12.8	9.2	9.1	3.4	3.7	5.1	5.4
2004	60,734	62,491	768	799	509	519	259	280	105	105	364	385	12.6	12.8	8.4	8.3	4.2	4.5	6.0	6.2
2005	61,181	62,958	774	807	528	538	246	269	95	92	341	361	12.7	12.8	8.6	8.5	4.1	4.3	5.6	5.7
2006	61,597	63,393	797	829	516	527	281	302	115	112	396	414	12.9	13.1	8.4	8.3	4.5	4.8	6.4	6.5
2007	61,965	63,781	786	819	521	531	265	288	75	74	340	362	12.7	12.8	8.4	8.3	4.3	4.5	5.5	5.7
2008	62,300	64,133	796	828	532	543	264	285	67	57	331	342	12.8	12.9	8.5	8.5	4.3	4.4	5.3	5.3
2009	62,615	64,459	793	825	538	549	255	276	44	32	299	308	12.7	12.8	8.6	8.5	4.1	4.3	4.8	4.8
2010	62,918	64,773	802	833	540	551	262	282	43	39	305	321	12.7	12.9	8.6	8.5	4.1	4.4	4.8	5.0
2011	63,223	65,087	793	823	535	545	258	278	47	30	305	308	12.5	12.6	8.5	8.4	4.0	4.2	4.8	4.7
2012	63,537	65,403	790	821	559	570	231	251	91	72	322	323	12.4	12.6	8.8	8.7	3.6	3.9	5.1	4.9
2013	63,863	65,848	782	812	558	569	224	243	107	100	331	343	12.2	12.4	8.7	8.7	3.5	3.7	5.2	5.2
2014	64,164	66,277	781	819	547	559	234	260	39	32	273	292	12.2	12.4	8.5	8.4	3.7	4.0	4.3	4.4
2015	64,685	66,513	760	799	582	594	178	205	52	41	168	180	11.8	12.0	9.0	8.9	2.8	3.1	3.6	3.7
2016 (p)	64,544	66,686	745	784	581	594	164	190	66	58	150	166	11.5	11.8	9.0	8.9	2.5	2.9	3.6	3.7
2017 (p)	64,672	66,830	730	770	594	606	136	164	66	58	107	122	11.3	11.5	9.2	9.1	2.1	2.4	3.1	3.3
2018 (p)	64,769	66,942	720	759	597	610	123	149	66	58	87	102	11.3	11.3	9.2	9.1	2.1	2.2	2.9	3.1

(p): Provisional results, end 2018.
Coverage: Whole of France (including Mayotte since 2014).
Source: INSEE, Demographic Surveys and Studies Division.

Table A.2. Age distribution of the population on 1 January (%)

Metropolitan France

Age group	1995	2000	2005	2010	2015	2016 (p)	2017 (p)	2018 (p)	2019 (p)
0–19	26.1	25.6	25.0	24.5	24.3	24.3	24.1	24.0	23.8
20–59	53.8	53.8	54.1	52.7	50.8	50.5	50.3	50.0	49.8
60+	20.1	20.6	20.9	22.8	24.8	25.2	25.6	26.0	26.4
including:									
65+	*15.0*	*16.0*	*16.5*	*16.8*	*18.6*	*19.1*	*19.5*	*19.9*	*20.3*
75+	*6.1*	*7.2*	*8.1*	*8.9*	*9.3*	*9.3*	*9.3*	*9.3*	*9.2*
Overall	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Whole of France

Age group	1995	2000	2005	2010	2015	2016 (p)	2017 (p)	2018 (p)	2019 (p)
0–19	26.4	25.8	25.3	24.8	24.6	24.6	24.4	24.3	24.1
20–59	53.8	53.8	54.0	52.6	50.8	50.5	50.2	50.0	49.8
60+	19.9	20.4	20.7	22.6	24.6	24.9	25.4	26.0	26.1
including:									
65+	*14.9*	*15.8*	*16.3*	*16.6*	*18.4*	*18.9*	*19.3*	*19.7*	*20.0*
75+	*6.0*	*7.1*	*8.0*	*8.8*	*9.1*	*9.2*	*9.1*	*9.2*	*9.3*
Overall	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(p): Provisional results, end 2018.
Source: INSEE, Demographic Surveys and Studies Division, series revised after the 2013 census.

Table A.3. Number of first residence permits of at least one year granted to citizens of third countries (constant geographical area) by first year of validity

Year admitted for residence	Total	Of which minors
2000	136,865	16,230
2001	164,676	22,126
2002	187,077	24,153
2003	200,531	24,597
2004	201,380	29,131
2005	199,780	31,128
2006	194,936	27,205
2007	177,304	24,766
2008	184,201	20,561
2009	189,428	18,524
2010	184,429	17,980
2011	177,671	17,594
2012	180,011	17,500
2013	192,396	18,246
2014	199,887	20,688
2015	210,040	21,493
2016	218,354	22,406
2017	237,742	28,969

Coverage: Permits granted in France and abroad to foreign nationals excluding citizens of the European Economic Area and Switzerland. Permits granted in year *n* and registered in the AGDREF database extraction performed in July of the year *n* + 2, except for the year 2009, for which extraction was performed in July 2012.
Source: Authors' calculations based on AGDREF data transmitted to INED.

Table A.4. Fertility since 1970

Year	Sum of age-specific rates (per 100 women)								Mean age at childbearing (years)		Mean age at first birth (1)	Proportion of births outside marriage	
	15–24		25–34		35+		Total (TFR)						
	Metropolitan France	Whole of France	Metropolitan France	Whole of France	Metropolitan France	Whole of France	Metropolitan France	Whole of France	Metropolitan France	Whole of France		Metropolitan France	Whole of France
1970	93		125		30		247		27.2		23.9	6.8	
1975	76		97		19		193		26.7		24.1	8.5	
1980	70		109		16		194		26.8		24.5	11.4	
1985	54		110		17		181		27.5		25.2	19.6	
1990	42		114		22		178		28.3		26.0	30.1	
1995	31	33	116	116	24	24	171	173	29.0	28.9	26.8	37.6	38.6
2000	32	33	125	125	31	31	187	189	29.4	29.3	27.4	42.6	43.6
2005	31	33	126	125	35	35	192	193	29.7	29.6	27.7	47.4	48.4
2006	32		130		37		198		29.8		27.8		
2007	31		128		37		196		29.8		27.9		
2008	31		129		38		199		29.9		27.9		
2009	31		129		39		199		29.9		28.0		
2010	31	32	131	131	40	39	202	202	30.0	29.9	28.1	54.1	54.9
2011	30	31	129	129	41	40	200	200	30.1	30.0		55.0	55.8
2012	29	31	128	128	42	41	199	200	30.1	30.1		55.8	56.7
2013	28	30	127	127	42	42	197	198	30.2	30.2	28.1	56.4	57.2
2014	27	29	127	127	44	43	197	199	30.3	30.3	28.3	57.4	58.5
2015 (p)	25	28	124	124	43	43	192	195	30.4	30.4	28.5	57.9	59.1
2016 (p)	24	26	121	122	44	43	189	192	30.6	30.5	28.5	58.5	59.7
2017 (p)	22	25	120	120	44	44	186	189	30.7	30.5	28.7	58.6	59.9
2018 (p)	22	24	118	119	44	44	184	187	30.7	30.6			60.3

(p): Provisional results, end 2018.
Coverage: Metropolitan France or whole of France. From 2014, whole of France including Mayotte.
Source: INSEE (1) 1970–1995: metropolitan France, Laurent Toulemon, from EHF (Study of Family History) 1999; 2000: estimate based on vital records; 2004–2010: Davie and Niel (2012) Table 3; from 2013: Eurostat (supplied by INSEE).

Table A.5. Cohort fertility: cumulative fertility up to selected ages, estimated completed fertility (mean number of children per 100 women), and mean age at childbearing (in years)

Birth cohort	Cumulative fertility per 100 women (age in completed years)				Projection at constant rate*	
	24	29	34	39	Completed fertility	Mean age at childbearing
1930	90	177	231	256	263	27.5
1935	89	181	233	254	258	27.1
1940	96	181	225	238	241	26.4
1945	99	174	206	219	222	26.0
1950	89	154	192	207	211	26.5
1955	77	148	190	209	213	27.0
1960	66	139	184	206	212	27.7
1965	49	118	170	196	204	28.7
1970	37	103	162	192	200	29.5
1975	30	96	161	194	203	30.0
1976	30	95	160	194	203	30.1
1977	31	96	161	196	205	30.1
1978	31	95	162	196	205	30.1
1979	31	96	163	196	207	30.1
1980	31	95	161		205	30.1
1981	32	96	162		205	30.1
1982	32	96	162		205	30.1
1983	31	95	160		205	30.1
1984	32	95	160			
1985	31	94				
1986	31	94				
1987	31	92				
1988	30	89				
1989	30	87				
1990	29					
1991	28					
1992	27					
1993	26					
1994	25					

* For the 1930–1967 cohorts, observed completed fertility and mean age at childbearing; for later cohorts, unobserved rates are assumed equal to rates observed at the same age in 2017.
Coverage: Metropolitan France.
Source: Calculations and estimates based on data from INSEE, Demographic Surveys and Studies Division.

Table A.6. Total fertility rate in Europe (mean number of children per woman)

	Year									
	1980	1985	1990	1995	2000	2005	2010	2015	2016	2017
Austria	1.65	1.47	1.46	1.42	1.36	1.41	1.44	1.49	1.53	1.52
Belgium	1.68	1.51	1.62	1.56	1.67	1.76	1.86	1.70	1.68	1.65
Bulgaria	2.05	1.97	1.82	1.23	1.26	1.37	1.57	1.53	1.54	1.56
Croatia	1.50	1.55	1.48	1.51	1.46	1.50	1.55	1.40	1.42	1.42
Cyprus	—	2.43	2.41	2.03	1.64	1.48	1.44	1.32	1.37	1.32
Czech Republic	2.08	1.95	1.90	1.28	1.15	1.29	1.51	1.57	1.63	1.69
Denmark	1.55	1.45	1.67	1.80	1.77	1.80	1.87	1.71	1.79	1.75
Estonia	2.02	2.13	2.05	1.38	1.36	1.52	1.72	1.58	1.60	1.59
Finland	1.63	1.64	1.78	1.81	1.73	1.80	1.87	1.65	1.57	1.49
France*	1.95	1.81	1.78	1.71	1.89	1.94	2.03	1.96	1.92	1.87
Germany	1.56	1.37	1.45	1.25	1.38	1.34	1.39	1.50	1.6	1.57
Greece	2.23	1.67	1.39	1.28	1.25	1.34	1.48	1.33	1.38	1.35
Hungary	1.91	1.85	1.87	1.57	1.32	1.31	1.25	1.45	1.53	1.54
Ireland	3.21	2.48	2.11	1.84	1.89	1.86	2.05	1.85	1.81	1.77
Italy	1.64	1.42	1.33	1.19	1.26	1.34	1.46	1.35	1.34	1.32
Latvia	—	—	—	—	1.25	1.35	1.36	1.70	1.74	1.69
Lithuania	1.99	2.08	2.03	1.55	1.39	1.29	1.50	1.70	1.69	1.63
Luxembourg	1.50	1.38	1.60	1.70	1.76	1.63	1.63	1.47	1.41	1.39
Malta	1.99	1.95	2.04	1.77	1.68	1.38	1.36	1.37	1.37	1.26
Netherlands	1.60	1.51	1.62	1.53	1.72	1.71	1.79	1.66	1.66	1.62
Poland	—	—	2.06	1.62	1.37	1.24	1.41	1.32	1.39	1.48
Portugal	2.25	1.72	1.56	1.41	1.55	1.41	1.39	1.31	1.36	1.38
Romania	2.43	2.31	1.83	1.33	1.31	1.40	1.59	1.58	1.64	1.71
Slovakia	2.32	2.26	2.09	1.52	1.30	1.27	1.43	1.40	1.48	1.52
Slovenia	-	1.71	1.46	1.29	1.26	1.26	1.57	1.57	1.58	1.62
Spain	2.20	1.64	1.36	1.16	1.22	1.33	1.37	1.33	1.34	1.31
Sweden	1.68	1.74	2.13	1.73	1.54	1.77	1.98	1.85	1.85	1.78
United Kingdom	1.90	1.79	1.83	1.71	1.64	1.76	1.92	1.80	1.79	1.74
Iceland	2.48	1.93	2.30	2.08	2.08	2.05	2.20	1.80	1.74	1.71
Norway	1.72	1.68	1.93	1.87	1.85	1.84	1.95	1.72	1.71	1.62
Switzerland	1.55	1.52	1.58	1.48	1.50	1.42	1.52	1.54	1.54	1.52

* France: data for metropolitan France up to 1995 and whole of France thereafter.
Source: Eurostat (site accessed July 2019), and INSEE data for France.

Table A.7. Cohort fertility in Europe

Birth cohort	Completed fertility (per woman)					Mean age at childbearing (years)					Last available year
	1954–1955	1959–1960	1964–1965	1969–1970	1974–1975[1]	1954–1955	1959–1960	1964–1965	1969–1970	1974–1975[1]	
Austria	1.77	1.71	1.66	1.61	1.63–1.64	25.8	26.5	27.3	28.2	28.8–28.9	2010
Belgium	1.83	1.87	1.84	1.84	1.83–1.87	26.7	27.4	28.3	29.2	29.6–29.8	2009
Bulgaria	2.04	1.96	1.84	1.66	1.56	24.0	23.7	23.6	24.3	26.0	2010
Czech Rep.	2.08	2.03	1.95	1.87	1.77–1.78	24.5	24.5	24.9	25.7	27.7–27.9	2010
Estonia				1.91	1.83–1.86				26.4	27.7–27.9	2010
Denmark	1.84	1.88	1.93	1.98	1.96–1.98	27.2	28.4	29.2	29.7	30.2–30.3	2010
Finland	1.88	1.95	1.92	1.89	1.89–1.90	27.9	28.6	29.2	29.6	30.0–30.1	2010
France (metro.)	2.13	2.12	2.04	1.99	2.01–2.04	27.0	27.6	28.6	29.5	29.9–30.1	2010
Germany	1.66	1.66	1.56	1.50	1.54–1.56	26.4	27.1	28.1	29.0	29.5–29.6	2010
Greece	2.02	1.97	1.79	1.64	1.55–1.58	25.9	26.0	27.0	28.7	29.9–30.0	2010
Hungary	1.96	2.02	1.98	1.88	1.70–1.71	24.9	25.0	25.5	26.4	27.7–27.8	2010
Ireland			2.21	2.12	2.06–2.12			30.2	31.0	31.3–31.6	2010
Italy	1.80	1.69	1.55	1.47	1.42–1.45	27.1	27.9	29.3	30.6	31.2–31.4	2010
Latvia[2]	—	—	—	—	—	—	—	—	—	—	—
Lithuania	1.97	1.92	1.72	1.77	1.72–1.73	26.3	26.0	26.1	26.0	26.8	
Luxembourg	1.67	1.75	1.83	1.85	1.80–1.82	27.6	28.6	29.2	29.7	29.9–30.0	2010
Netherlands	1.88	1.86	1.79	1.77	1.78–1.80	28.1	29.2	30.0	30.6	30.7–30.8	2010
Poland				1.85	1.61–1.62				26.1	27.3–27.4	2010
Portugal	2.03	1.90	1.83	1.69	1.57–1.58	26.2	26.4	27.4	28.3	29.0–29.1	2010
Romania	2.33	2.16	1.94	1.63	1.55	25.0	24.5	24.2	25.2	26.2–26.3	2010
Slovakia	2.23	2.17	2.05	1.92	1.73	25.2	25.0	25.0	25.4	26.8	2010
Slovenia			1.79	1.71	1.66–1.67			25.9	27.3	28.9–29.0	2010
Spain	1.93	1.80	1.65	1.50	1.37–1.41	27.2	27.8	29.2	30.6	31.6–31.8	2010
Sweden	2.02	2.05	2.03	1.98	1.96–1.99	27.9	28.6	28.9	29.6	30.6–30.7	2010
United Kingdom	2.01	1.97	1.92	1.88	1.90–1.93	27.1	27.8	28.4	28.9	29.4–29.5	2010
Iceland	2.55	2.46	2.39	2.32	2.26–2.27	26.6	27.4	28.0	28.4	29.3–29.4	2010
Norway	2.05	2.09	2.07	2.05	2.00–2.01	27.0	28.0	28.6	29.1	29.7–29.8	2010
Switzerland	1.75	1.78	1.69	1.65	1.63–1.65	28.0	28.7	29.5	30.2	30.7–30.8	2010

(1) The estimate is based on rates that remain unchanged with respect to the last observation year.
(2) The series of published rates (2002–2010) cannot be used to calculate and estimate completed fertility.
Sources: Calculations and estimations based on age-specific fertility rates published on the Eurostat website (not available since 2012).

Table A.8. Number of induced abortions and annual indicators since 1976

Year	Number of abortions + Abortions reported in notifications[1]	Abortions recorded in SAE[2]	Abortions estimated by INED[3]	Abortions per 100 live births[4]	Abortion rate per 1,000 women aged 15–49[4]	Mean number of abortions per woman[4]
1976	134,173		246,000	34.1	19.6	0.66
1981	180,695		245,000	30.4	18.7	0.62
1986	166,797		221,000	28.4	16.1	0.53
1991	172,152		206,000	27.1	14.4	0.48
1996	162,792	246,000	207,000	28.2	14.2	0.50
2001		245,000	206,000	26.7	14.3	0.51
2006	174,561	221,000		27.0	14.9	0.53
2007	185,498	206,000		27.1	14.7	0.53
2008	180,108	207,000		26.3	14.5	0.52
2009	171,152	206,000		26.5	14.6	0.53
2010	172,505	213,317		26.4	14.8	0.53
2011	170,081	209,291		26.4	14.7	0.53
2012	156,824	207,120		26.2	14.5	0.53
2013	149,579	216,697		26.7	15.3	0.55
2014	126,464	211,764		27.1	15.0	0.55
2015		203,463		26.7	14.5	0.52
2016		197,800		26.6	13.9	0.51
2017		204,000		27.9	14.4	
2018 (p)		209,522		29.1	15.0	

(p): Provisional results.
(1) Statistics from notifications including elective and therapeutic abortions.
(2) Administrative statistics based on recorded medical procedures. Data from 2010 includes data from the CNAM-TS and takes account of abortions covered by specific health insurance funds (MSA and RSI).
Source: DREES and CNAM-TS from 2010.
(3) INED estimate (elective abortions). From 2002, the hospital statistics are considered exhaustive.
Source: C. Rossier and C. Pirus (2007).
(4) Based on INED statistics up to 2001 and on hospital statistics from 2002.
Coverage: Metropolitan France.

Table A.9. Characteristics of nuptiality, PACS unions, and divorce since 1985

Year	Number of marriages				Total first-marriage rate				Mean age at first marriage (based on rates)		Number of divorces[3]		Total divorce rate per 100 marriages	Number of PACS unions		Number of PACS dissolutions	
	Metropolitan France		Whole of France (incl. DOMS and Mayotte from 2014).		Overall rate by age[1]		Overall probability by age[2]		Men	Women	Metro. France	Whole of France		Metro. France	Whole of France	Metro. France	Whole of France
	Different-sex	Overall	Different-sex	Overall	Men	Women	Men	Women									
1985	269,419				0.53	0.54	0.71	0.74	26.3	24.2	107,505		30.5				
1990	287,099				0.55	0.56	0.69	0.72	27.6	25.6	105,813		32.1				
1995	254,651		261,813		0.48	0.50	0.61	0.64	28.9	26.9	119,189	121,946	38.2				
2000	297,922		305,234		0.58	0.60	0.66	0.69	30.2	28.0	114,005	116,723	38.2	22,108	22,271	620	624
2001	288,255		295,720		0.57	0.59	0.64	0.68	30.2	28.1	112,631	115,388	38.0	19,410	19,629	1,859	1,872
2002	279,087		286,169		0.55	0.57	0.63	0.66	30.4	28.3	115,861	118,686	39.2	24,979	25,305	3,143	3,185
2003	275,963		282,756		0.55	0.56	0.62	0.65	30.6	28.5	125,175	127,966	42.5	31,161	31,570	5,229	5,292
2004	271,598		278,439		0.53	0.55	0.61	0.64	30.8	28.8	131,335	134,601	44.8	39,576	40,080	6,935	7,043
2005	276,303		283,036		0.54	0.55	0.61	0.64	31.1	29.1	152,020	155,253	52.3	59,837	60,462	8,564	8,690
2006	267,260		273,914		0.52	0.53	0.59	0.62	31.2	29.2	135,910	139,147	46.9	76,680	77,347	9,470	9,583
2007	267,194		273,669		0.51	0.52	0.59	0.62	31.4	29.5	131,316	134,477	45.5	101,062	101,992	22,908	23,132
2008	258,749		265,404		0.50	0.51	0.57	0.60	31.6	29.6	129,379	132,594	45.1	144,782	145,938	25,585	25,802
2009	245,151		251,478		0.47	0.48	0.55	0.58	31.7	29.8	127,578	130,601	44.7	173,180	174,584	32,411	32,711
2010	245,334		251,654		0.47	0.48	0.54	0.58	31.8	30.0	130,810	133,909	46.2	203,959	205,561	43,250	43,628
2011	231,100		236,826		0.44	0.45	0.52	0.55	31.9	30.1	129,802	132,977	46.2	150,800	152,169	51,555	52,002
2012	239,840		245,930		0.46	0.47	0.53	0.56	32.0	30.2	125,217	128,371	45.0	159,195	160,639	60,950	61,507
2013	225,784	233,108	231,225	238,592	0.44	0.45	0.52	0.55	32.4	30.6	121,849	124,948	44.2	167,123	168,682	68,933	69,540
2014	224,878	235,315	230,770	241,292	0.45	0.45	0.52	0.55	32.6	30.9	120,568	123,537	44.1	172,026	173,731	75,646	76,267
2015	222,664	230,364	228,565	236,316	0.44	0.45	0.51	0.53	32.7	31.0	120,731	123,668	44.7	187,248	188,947	78,725	79,386
2016 (p)	219,549	226,614	225,612	232,725	0.43	0.44	0.49	0.50	32.9	31.2	124,768	128,043	46.7	189,756	191,537	83,937	84,662
2017 (p)	220,582	227,758	226,671	233,915	0.43	0.44	0.49	0.50	33.0	31.4	88,146[4]	90,613[4]	33.1		193,950		82,345
2018 (p)			229,000	235,000													

(p): Provisional data.
(1) Ratio of number of first marriages to number of persons of same age, summed to age 49.
(2) Ratio of number of first marriages to (estimated) number of never-married persons at the same age, summed to age 49.
(3) Direct divorces and separations converted into divorces.
(4) By virtue of law no. 2016-1547 of 18 November 2016, divorce requests can also be filed before a notary. These divorces are not included in the above table so the figures for 2017 are incomplete.
Coverage: Metropolitan France and whole of France.
Source: INSEE, Demographic Surveys and Studies Division; French Ministry of Justice.

Table A.10A. Characteristics of nuptiality by birth cohort

Men

Male cohorts	Proportion ever-married at age 49*	Mean age at first marriage (years)*	Proportion ever-married	
			At age 25	At age 30
1955	0.83	26.4	0.55	0.72
1960	0.77	27.1	0.39	0.60
1965	0.71	28.9	0.25	0.48
1970	0.66	30.1	0.15	0.40
1975	0.61	31.0	0.10	0.35
1980	0.55	31.8	0.08	0.28
1985			0.06	0.23
1990*			0.05	0.19

Women

Male cohorts	Proportion ever-married at age 49*	Mean age at first marriage (years)*	Proportion ever-married	
			At age 25	At age 30
1955	0.88	22.9	0.71	0.81
1960	0.82	24.2	0.59	0.72
1965	0.76	26.3	0.43	0.60
1970	0.71	27.8	0.30	0.52
1975	0.67	28.9	0.23	0.46
1980	0.61	29.7	0.18	0.39
1985			0.14	0.32
1990*			0.10	0.26

* Unobserved marriage probabilities are estimated as the average of the 3 preceding years.
Coverage: Metropolitan France.
Source: Calculations and estimates based on INSEE data.

Table A.10B. Divorce in marriage cohorts (number of marriages dissolved at different marriage durations for an initial total of 100 marriages)

Year of marriage	Marriage duration (years)									Divorce intensity* (divorces per 100 marriages)	Mean marriage duration* at divorce (years)
	3	5	10	15	20	25	30	35	40		
1970	1.6	3.6	9.7	15.2	20.0	23.7	26.1	27.7	28.7	28.7	15.6
1975	2.3	5.2	12.5	18.5	23.3	27.2	29.8	31.5	32.5	32.5	14.8
1980	2.9	6.5	14.3	20.7	26.0	30.2	33.1	34.8		35.7	14.4
1985	3.4	7.1	15.7	22.7	28.4	33.0	35.9			38.6	14.2
1990	3.8	8.2	17.8	25.5	31.6	36.2				41.8	13.7
1995	3.4	7.6	18.0	25.8	32.0					42.2	13.8
2000	4.2	10.0	20.8	28.9						45.4	13.2
2005	4.4	9.6	20.5							45.1	13.2
2010	4.1	8.9									

* Intensity and mean duration calculated by applying the rates observed in the previous cohorts through to the longest marriage durations.
Coverage: Metropolitan France.
Sources: Ministry of Justice, INSEE, civil records.

Table A.11. Characteristics of overall mortality, 1946–2018

Year	Life expectancy (years)				Mortality rate (per 1,000 live births)		Survivors at age 65 (per 1,000 at birth)	
	At birth		At age 65		Infant[1]	Neonatal[2]	Males	Females
	Males	Females	Males	Females				
1946	59.9	65.2	12.2	14.3	77.8	n/a	574	681
1947	61.2	66.7	12.3	14.5	71.1	n/a	589	703
1948	62.7	68.8	12.5	15.0	55.9	n/a	599	727
1949	62.2	67.6	11.8	14.0	60.3	n/a	595	716
1950	63.4	69.2	12.2	14.6	52.0	26.0	609	736
1951	63.1	68.9	11.8	14.2	50.8	24.0	602	732
1952	64.4	70.2	12.3	14.8	45.2	22.4	623	752
1953	64.3	70.3	11.8	14.4	41.9	22.0	617	753
1954	65.0	71.2	12.4	15.1	40.7	21.6	629	765
1955	65.2	71.5	12.3	15.1	38.6	20.8	631	772
1956	65.2	71.7	12.1	14.9	36.2	20.5	626	776
1957	65.5	72.2	12.2	15.2	33.8	19.5	631	783
1958	66.8	73.2	12.8	15.6	31.4	18.9	660	801
1959	66.8	73.4	12.8	15.7	29.6	18.1	657	801
1960	67.0	73.6	12.6	15.6	27.4	17.6	658	806
1961	67.5	74.4	13.0	16.1	25.7	16.7	664	815
1962	67.0	73.9	12.6	15.7	25.7	16.7	656	811
1963	66.8	73.9	12.4	15.6	25.6	16.6	652	810
1964	67.7	74.8	12.9	16.4	23.4	15.9	667	820
1965	67.5	74.7	12.6	16.2	21.9	15.2	661	820
1966	67.8	75.2	12.9	16.5	21.7	14.9	669	824
1967	67.8	75.2	12.8	16.5	20.7	14.5	668	826
1968	67.8	75.2	12.7	16.4	20.4	14.2	669	827
1969	67.4	75.1	12.5	16.3	19.6	13.7	661	824
1970	68.4	75.9	13.0	16.8	18.2	12.6	682	834
1971	68.3	75.9	13.0	16.8	17.2	12.0	680	836
1972	68.5	76.2	13.1	17.0	16.0	11.2	683	838
1973	68.7	76.3	13.1	17.0	15.4	10.6	688	842
1974	68.9	76.7	13.3	17.2	14.6	9.9	690	847
1975	69.0	76.9	13.2	17.2	13.8	9.2	691	849
1976	69.2	77.2	13.3	17.4	12.5	8.1	693	853
1977	69.7	77.8	13.7	17.9	11.4	7.4	702	860
1978	69.8	78.0	13.7	17.9	10.7	6.7	704	861
1979	70.1	78.3	13.9	18.1	10.0	6.0	707	864
1980	70.2	78.4	14.0	18.2	10.0	5.8	710	866
1981	70.4	78.5	14.0	18.2	9.7	5.5	714	869
1982	70.7	78.9	14.3	18.5	9.5	5.3	718	872
1983	70.7	78.8	14.2	18.4	9.1	5.0	719	872
1984	71.2	79.3	14.5	18.8	8.3	4.7	724	878
1985	71.3	79.4	14.5	18.8	8.3	4.6	727	880

Table A.11 (cont'd). Characteristics of overall mortality, 1946–2018

Year	Life expectancy (years)				Mortality rate (per 1,000 live births)		Survivors at age 65 (per 1,000 at birth)	
	At birth		At age 65		Infant[1]	Neonatal[2]	Males	Females
	Males	Females	Males	Females				
1986	71.5	79.7	14.7	19.0	8.0	4.3	731	882
1987	72.0	80.3	15.0	19.4	7.8	4.1	740	886
1988	72.3	80.5	15.3	19.6	7.8	4.1	744	888
1989	72.5	80.6	15.4	19.7	7.5	3.8	746	889
1990	72.7	81.0	15.6	19.9	7.3	3.6	752	893
1991	72.9	81.2	15.7	20.1	7.3	3.5	754	894
1992	73.2	81.5	15.9	20.4	6.8	3.3	758	896
1993	73.3	81.5	15.9	20.4	6.5	3.1	760	895
1994	73.7	81.9	16.2	20.7	5.9	3.2	766	898
1995	73.9	81.9	16.1	20.6	4.9	2.9	771	900
1996	74.1	82.1	16.1	20.7	4.8	3.0	776	901
1997	74.6	82.3	16.3	20.9	4.7	3.0	784	904
1998	74.8	82.4	16.4	20.9	4.6	2.9	789	905
1999	75.0	82.5	16.5	21.0	4.3	2.7	793	906
2000	75.3	82.8	16.7	21.2	4.4	2.8	797	908
2001	75.5	82.9	16.9	21.4	4.5	2.9	799	908
2002	75.8	83.1	17.1	21.4	4.1	2.7	802	909
2003	75.9	83.0	17.1	21.3	4.0	2.6	804	910
2004	76.7	83.9	17.7	22.2	3.9	2.6	815	913
2005	76.8	83.9	17.7	22.0	3.6	2.3	816	914
2006	77.2	84.2	18.0	22.4	3.6	2.3	820	915
2007	77.4	84.4	18.2	22.5	3.6	2.4	823	917
2008	77.6	84.4	18.3	22.5	3.6	2.4	825	917
2009	77.8	84.5	18.4	22.6	3.7	2.4	826	917
2010	78.0	84.7	18.6	22.7	3.5	2.3	829	918
2011	78.4	85.0	18.9	23.0	3.3	2.2	834	920
2012	78.5	84.8	18.8	22.8	3.3	2.3	836	921
2013	78.8	85.0	19.0	23.0	3.5	2.4	840	922
2014	79.3	85.4	19.4	23.3	3.3	2.3	846	923
2015	79.0	85.1	19.1	23.0	3.5	2.5	844	923
2016 (p)	79.3	85.3	19.3	23.2	3.5	2.5	847	924
2017 (p)	79.4	85.3	19.4	23.2	3.6	2.7	850	923
2018 (p)	79.5	85.4	19.4	23.2	3.6	n/a	n/a	n/a

(p): Provisional data.
n/a: Not available.
(1) Deaths under one year per 1,000 live births.
(2) Deaths under 28 days per 1,000 live births.
Coverage: Metropolitan France.
Source: INSEE, Demographic Surveys and Studies Division.

Table A.12. Life expectancy at birth in Europe in 2017

Country	Life expectancy at birth (years)		
	Males	Females	Difference (F – M)
Austria	79.4	84.0	4.6
Belgium	79.2	83.9	4.7
Bulgaria	71.4	78.4	7.0
Croatia	74.9	81.0	6.1
Czech Republic	76.1	82.0	5.9
Denmark	79.2	83.1	3.9
Estonia	73.8	82.6	8.8
Finland	78.9	84.5	5.6
Whole of France (including Mayotte)	79.4	85.2	5.8
Germany	78.7	83.4	4.7
Greece	78.8	83.9	5.1
Hungary	72.5	79.3	6.8
Iceland	81.1	84.3	3.2
Ireland	80.4	84.0	3.6
Italy	80.8	85.2	4.4
Latvia	69.8	79.7	9.9
Lithuania	70.7	80.5	9.8
Luxembourg	79.9	84.4	4.5
Netherlands	80.2	83.4	3.2
Norway	81.0	84.3	3.3
Poland	73.9	81.8	7.9
Portugal	78.4	84.6	6.2
Romania	71.7	79.1	7.4
Slovakia	73.8	80.7	6.9
Slovenia	78.2	84.0	5.8
Spain	80.6	86.1	5.5
Sweden	80.8	84.1	3.3
Switzerland	81.6	85.6	4.0
United Kingdom	79.5	83.1	3.6

Source: Eurostat, https://ec.europa.eu/eurostat/data/database, accessed 20 June 2019, except France (INSEE).

Table A.13. Infant mortality in Europe 1980-2017 (rate per 1,000 live births)

Country	1980	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017
Austria	14.3	11.2	7.8	5.4	4.8	4.2	3.9	3.6	3.2	3.1	3.0	3.1	3.1	2.9
Belgium	12.1	9.8	8.0	6.0	4.8	3.7	3.6	3.3	3.8	3.5	3.4	3.3	3.2	3.6
Bulgaria	20.2	15.4	14.8	13.3	13.3	10.4	9.4	8.5	7.8	7.3	7.6	6.6	6.5	6.4
Croatia	n/a	n/a	n/a	n/a	7.4	5.7	4.4	4.7	3.6	4.1	5.0	4.1	4.3	4.0
Czech Republic	16.9	12.5	10.8	7.7	4.1	3.4	2.7	2.7	2.6	2.5	2.4	2.5	2.8	2.7
Denmark	8.4	7.9	7.5	5.1	5.3	4.4	3.4	3.5	3.4	3.5	4.0	3.7	3.1	3.8
Estonia	17.1	14.1	12.3	14.9	8.4	5.4	3.3	2.5	3.6	2.1	2.7	2.5	2.3	2.3
Finland	7.6	6.3	5.6	3.9	3.8	3.0	2.3	2.4	2.4	1.8	2.2	1.7	1.9	2.0
Metropolitan France[(1)]	10.0	8.3	7.3	4.9	4.4	3.6	3.5	3.3	3.3	3.5	3.3	3.5	3.5	3.6
Whole of France[(1)]	n/a	n/a	n/a	5.0	4.5	3.8	3.6	3.5	3.5	3.6	3.6	3.7	3.7	3.9
Germany	12.4	9.1	7.0	5.3	4.4	3.9	3.4	3.6	3.3	3.3	3.2	3.3	3.4	3.3
Greece	17.9	14.1	9.7	8.1	5.9	3.8	3.8	3.4	2.9	3.7	3.7	4.0	4.2	3.5
Hungary	23.2	20.4	14.8	10.7	9.2	6.2	5.3	4.9	4.9	5.0	4.5	4.2	3.9	3.5
Iceland	7.7	5.7	5.9	6.1	3.0	2.3	2.2	0.9	1.1	1.8	2.1	2.2	0.7	2.7
Ireland	11.1	8.8	8.2	6.4	6.2	4.0	3.8	3.5	3.5	3.5	3.3	3.4	3.0	3.0
Italy	14.6	10.5	8.2	6.2	4.5	3.8	3.2	3.2	2.9	2.9	2.8	2.9	2.8	2.7
Latvia	15.3	13.0	13.7	18.8	10.4	7.8	5.7	6.6	6.3	4.4	3.8	4.1	3.7	4.1
Lithuania	14.5	14.2	10.2	12.5	8.6	6.8	4.3	4.2	3.9	3.7	3.9	4.2	4.5	3.0
Luxembourg	11.5	9.0	7.3	5.5	5.1	2.6	3.4	4.3	2.5	3.9	2.8	2.8	3.8	3.2
Netherlands	8.6	8.0	7.1	5.5	5.1	4.9	3.8	3.6	3.7	3.8	3.6	3.3	3.5	3.6
Norway	8.1	8.5	6.9	4.0	3.8	3.1	2.8	2.4	2.5	2.4	2.4	2.3	2.2	2.3
Poland	25.4	22.1	19.4	13.6	8.1	6.4	5.0	4.7	4.6	4.6	4.2	4.0	4.0	4.0
Portugal	24.2	17.8	11.0	7.5	5.5	3.5	2.5	3.1	3.4	2.9	2.9	2.9	3.2	2.7
Romania	29.3	25.6	26.9	21.2	18.6	15.0	9.8	9.4	9.0	9.2	8.4	7.6	7.0	6.7
Slovakia	20.9	16.3	12.0	11.0	8.6	7.2	5.7	4.9	5.8	5.5	5.8	5.1	5.4	4.5
Slovenia	15.3	13.0	8.4	5.5	4.9	4.1	2.5	2.9	1.6	2.9	1.8	1.6	2.0	2.1
Spain	12.3	8.9	7.6	5.5	4.4	3.8	3.2	3.1	3.1	2.7	2.8	2.7	2.7	2.7
Sweden	6.9	6.8	6.0	4.1	3.4	2.4	2.5	2.1	2.6	2.7	2.2	2.5	2.5	2.4
Switzerland	9.0	6.7	6.7	5.0	5.3	4.2	3.8	3.8	3.6	3.9	3.9	3.9	3.6	3.5
United Kingdom	13.9	11.1	7.9	6.2	5.6	5.1	4.2	4.2	4.0	3.9	3.9	3.9	3.8	3.9

(1) INSEE for the whole of France between 1995 and 2017 (excluding Mayotte until 2014) and for metropolitan France between 2010 and 2017.
n/a: Not available.
Source: Eurostat, Infant mortality rate (https://ec.europa.eu/eurostat/data/database, accessed 27 June 2018), except (1).

Table A.14. Standardized mortality rate (per 100,000) by sex and group of causes of death[(a)]

Males

Causes of death	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
23 groups of causes																	
Lung cancer	63	67	70	70	66	64	63	62	60	60	58	58	56	55	54	54	52
Stomach cancer	20	17	14	12	10	8	8	8	7	7	7	7	7	7	7	6	6
Cancer of the intestine	31	29	29	28	25	24	23	22	22	22	22	21	21	20	20	20	19
Prostate cancer	28	30	32	29	26	23	22	22	21	20	20	19	18	17	16	16	16
Other cancers	176	180	171	160	152	139	136	134	131	129	125	121	119	116	116	115	113
Ischaemic heart diseases	117	118	96	85	76	62	58	56	54	51	48	46	45	43	40	41	39
Other heart diseases	130	115	93	90	81	71	69	69	68	66	64	59	58	57	54	55	53
Cerebrovascular diseases	123	103	71	59	47	37	35	34	33	31	30	29	28	27	25	25	25
Other diseases of the circulatory system	38	35	29	26	21	16	16	15	15	13	13	11	11	10	10	10	9
Tuberculosis (all forms)	5	3	2	2	2	1	1	1	1	1	1	1	0	1	0	0	0
AIDS	0	0	8	13	3	2	2	2	2	1	1	1	1	1	1	1	1
Influenza	2	2	3	1	2	1	0	0	0	0	0	0	1	1	0	1	1
Other infectious and parasitic diseases	11	12	10	11	12	11	11	11	11	11	11	11	11	10	9	10	9
Other respiratory diseases	83	79	71	69	53	47	42	42	42	42	39	39	40	39	36	39	38
Alcoholism and cirrhosis of the liver	56	46	35	29	28	24	24	23	23	22	22	21	20	19	18	18	18
Diabetes	11	11	9	9	15	14	13	13	13	13	12	12	12	12	11	12	11
Other mental disorders and diseases	28	28	31	30	40	42	41	41	42	42	42	41	43	42	40	44	44
Diseases of the digestive system	41	35	29	25	20	19	19	18	18	18	18	16	16	16	15	15	16
Other diseases	56	50	40	37	36	32	32	31	32	31	31	27	28	28	26	29	28
Transport accidents	30	26	26	20	19	13	12	12	11	11	10	9	8	7	7	7	7
Suicides	29	34	30	29	26	25	24	23	23	24	23	23	21	21	19	20	19
Other deaths from external causes	63	54	51	44	36	31	31	31	31	31	31	30	30	29	28	31	31
Unreported or ill-defined causes of death	74	70	56	48	46	45	43	44	46	47	55	53	60	59	53	55	55
6 broad groups of causes																	
Neoplasms	318	324	317	300	280	258	251	247	241	239	232	226	220	216	213	211	208
Cardiovascular diseases	409	371	288	260	225	187	177	173	169	161	156	145	142	137	129	131	127
Infectious and parasitic diseases, diseases of the respiratory system	101	97	95	95	72	62	56	56	56	55	52	53	54	51	47	51	49
Other diseases	193	169	143	131	138	132	129	126	128	126	124	118	120	117	111	118	117
Deaths from external causes	123	114	106	93	81	69	67	66	66	66	64	63	60	57	55	57	56
Unspecified or ill-defined causes of death	74	70	56	48	46	45	43	44	46	47	55	53	60	59	53	55	55
All causes	1,217	1,145	1,005	928	842	753	723	713	705	694	684	657	656	638	608	624	612

Females

Causes of death	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
23 groups of causes																	
Lung cancer	6	7	8	9	10	14	14	15	15	16	16	16	17	17	18	18	18
Stomach cancer	9	7	6	5	4	3	3	3	3	3	3	3	3	3	3	2	2
Cancer of the intestine	19	18	17	16	15	14	13	13	13	13	12	12	12	12	11	11	12
Breast cancer	27	28	29	29	27	25	25	24	24	24	23	23	22	22	22	22	22
Cancer of the uterus	11	10	8	7	6	6	6	6	6	6	6	6	6	6	6	6	6
Other cancers	76	74	70	69	67	63	62	60	61	60	59	57	56	56	56	57	57
Ischaemic heart diseases	51	51	42	35	30	23	22	21	20	19	17	16	16	15	14	14	13
Other heart diseases	93	81	64	61	54	47	45	45	45	44	42	39	39	38	36	37	35
Cerebrovascular diseases	88	74	52	41	33	26	25	23	23	23	22	21	21	20	19	19	18
Other diseases of the circulatory system	19	17	14	12	9	7	6	6	6	6	5	5	4	4	4	4	4
Tuberculosis (all forms)	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
AIDS	0	0	1	3	1	1	1	1	0	0	0	0	0	0	0	0	0
Influenza	2	2	2	1	1	1	0	0	0	0	0	0	0	1	0	1	1
Other infectious and parasitic diseases	7	7	6	7	8	7	6	6	7	7	7	7	7	6	6	6	5
Other respiratory diseases	33	33	31	30	24	21	18	19	19	19	17	18	20	18	17	20	19
Alcoholism and cirrhosis of the liver	19	15	12	10	9	8	8	7	7	7	6	7	6	6	5	5	5
Diabetes	10	9	8	7	10	9	8	8	8	8	7	7	7	7	6	7	6
Other mental disorders and diseases	22	22	24	24	32	33	33	33	34	34	33	34	36	36	34	36	36
Diseases of the digestive system	27	23	18	16	13	12	11	11	11	11	11	10	10	10	9	10	10
Other diseases	38	34	29	28	27	24	24	23	24	23	23	20	21	21	20	21	21
Transport accidents	10	9	9	7	6	4	3	3	3	3	3	2	2	2	2	2	2
Suicides	11	12	10	10	8	8	8	8	8	7	7	7	6	6	6	5	5
Other deaths from external causes	36	31	27	23	19	16	16	16	16	15	15	15	15	14	14	15	14
Unspecified or ill-defined causes of death	48	44	35	31	28	27	26	26	27	27	31	30	34	34	30	32	31
6 broad groups of causes																	
Neoplasms	147	143	138	135	129	124	123	121	123	121	119	118	117	115	116	116	117
Cardiovascular diseases	250	223	172	148	126	104	98	95	95	91	86	81	80	77	73	74	71
Infectious and parasitic diseases, diseases of the respiratory system	43	43	42	41	34	30	26	26	27	27	25	26	28	26	24	27	26
Other diseases	116	103	91	85	91	85	84	83	84	83	81	77	80	79	75	79	78
Deaths from external causes	57	53	46	40	34	28	27	26	26	26	25	24	23	23	21	22	22
Unspecified or ill-defined causes of death	48	44	35	31	28	27	26	26	27	27	31	30	34	34	30	32	31
All causes	662	609	525	480	442	399	384	377	381	375	367	356	362	353	339	351	345

(a) Standardized rate calculated from mortality rates by five-year age group (in completed years) and from the standard European population (according to the structure proposed by the WHO).
Thanks to a new analysis of INSERM data, the age groups now have the same definition for all years. The content of each group of causes of death is specified in Table A.15 on the next page (items of ICD-9 for 1980-1999 and of ICD-10 from 2000).
Coverage: Metropolitan France.
Source: Calculations by F. Meslé up to 2013 and by the authors since 2014 from CépiDc–INSERM data.

Table A.15. Cause-of-death categories and the corresponding codes in the International Classification of Diseases (ninth and tenth revisions)

	ICD 9	ICD 10
Cancer	140 to 239	C00 to D48
Lung cancer	162	C33 to C34
Stomach cancer	151	C16
Cancer of the intestine	152 to 154	C18 to C21
Breast cancer	174, 175	C50
Cancer of the uterus	179 to 180; 182	C53 to C55
Prostate cancer	185	C61
Other cancers	140 to 150; 155 to 161; 163 to 173; 181; 183 to 184; 186 to 239	C00 to C15; C17; C22 to C32; C37 to C49; C51; C52; C56 to C60; C62 to D48
Cardiovascular diseases	390 to 459	I00 to I99
Ischaemic heart diseases	410 to 414	I20 to I25
Other heart diseases	390 to 405; 415 to 429	I00 to I15; I26 to I51
Cerebro-vascular diseases	430 to 438	I60 to I69
Other diseases of the circulatory system	440 to 459	I70 to I99
Infectious and parasitic diseases, diseases of the respiratory system	000 to 139; 460 to 519	A00 to B99; J00 to J98
Tuberculosis (all forms)	010 to 018	A15 to A19; B90
AIDS	042 to 044	B20 to B24
Influenza	487	J10 to J11
Other infectious and parasitic diseases of ICD Chapter I	001 to 009; 020 to 041; 045 to 139	A00 to A09; A20 to B19; B25 to B89; B91 to B99
Other diseases of the respiratory system	460 to 586; 490 to 519	J00 to J06; J12 to J98
Other diseases	240 to 389; 520 to 779	D50 to D89; E00 to H95; K00 to Q99
Alcoholism and cirrhosis of the liver	291; 303; 305.0; 571.0 to.3;.5	F10; K70; K73 to K74
Diabetes	250	E10 to E14
Other mental disorders and diseases of the nervous system	290; 292 to 302; 304; 305.1 to 389	F00 to F09; F11 to H95
Other diseases of the digestive system	520 to 570; 571.4; 571.6 to 579	K00 to K67; K71; K72; K75 to K93
Other diseases	240 to 246; 251 to 289; 580 to 779	D50 to D89; E00 to E07; E15 to E89; L00 to Q99
External causes	800 to 999	V01 to Y89
Transport accidents	810 to 819; 826 to 829	V01 to V99
Suicides	950 to 959	X60 to X84
Other deaths from external causes	800 to 807; 820 to 825; 830 to 949; 960 to 999	W00 to X59; X85 to Y89
Unspecified or ill-defined causes of death	780 to 799	R00 to R99
All causes	001 to 999	A00 to R99; V01 to Y89

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Didier Breton, Magali Barbieri, Nicolas Belliot, Hippolyte d'Albis, Magali Mazuy •

Recent Demographic Trends in France: A European Outlier?

On 1 January 2019, the population of France was nearly 67 million (66.99 million), representing 13.1% of the population of the European Union. The year 2018 was marked by a low number of births (759,000) and a number of deaths (614,000) that topped 600,000 for the first time since the Second World War. There was an increase in inflows from third countries whose nationals are required to hold a residence permit to live in France (237,742 people, +9% with respect to 2016). Men increasingly outnumber women in these inflows due to the growing share of predominantly male inflows from Africa and Asia. France has one of Europe's lowest immigration rates. With a total fertility rate of 1.87 children per woman, France still ranks first in Europe in fertility. The total abortion rate was 0.5 per woman in 2018. The number of PACS unions is gradually catching up with the number of marriages (4 PACS for 5 marriages). The share of same-sex unions remained stable in 2017 (3.1% of all marriages, 3.8% of all PACS unions). Last, life expectancy is still increasing but at a slower pace. It is the highest in Europe for women but not for men, who are in ninth position. While France has an unusually low prevalence of deaths from cardiovascular diseases, the situation is much less favourable for mortality at younger ages, infant mortality in particular.

Didier Breton, Magali Barbieri, Nicolas Belliot, Hippolyte d'Albis, Magali Mazuy •

L'évolution démographique récente de la France : une singularité en Europe ?

Le 1er janvier 2019, la France comptait tout juste 67 millions d'habitants (66,99) soit 13,1 % de la population de l'Union européenne des 28. L'année 2018 se caractérise par le faible nombre de naissances (759 000) et un nombre de décès qui dépasse 600 000 pour la première fois depuis l'après-guerre (614 000). Le flux d'entrées d'étrangers soumis à l'obligation d'un titre de séjour est en augmentation (237 742 personnes, + 9 % par rapport à 2016). Ce flux se masculinise du fait de la part croissante des personnes en provenance d'Afrique et d'Asie. La France se caractérise par un taux d'immigration parmi les plus faible d'Europe. Avec un indice conjoncturel de fécondité de 1,87 enfant par femme, la France reste le pays le plus fécond d'Europe. L'indice conjoncturel d'IVG est pour sa part de 0,56 par femme en 2018. Petit à petit, le nombre de pacs rejoint le nombre de mariages (4 pacs pour 5 mariages). Les unions entre personnes de même sexe représente une part stable en 2017 (3,1 % des mariages et 3,8 % des pacs). Enfin, l'espérance de vie augmente encore mais à un rythme ralentit. Elle est la plus élevée d'Europe pour les femmes, ce qui n'est pas le cas pour les hommes (9e). Si la France se démarque par une prévalence faible des décès par maladie cardiovasculaire, la situation est nettement moins favorable pour la mortalité aux âges jeunes et notamment très jeune (mortalité infantile).

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La evolución demográfica reciente en Francia: ¿una singularidad en Europa?

El 1° de enero de 2019, Francia tenía casi 67 millones de habitantes (66,99 millones) o sea 13,1% de la población de la Unión Europea. El año 2018 estuvo marcado por un bajo número de nacimientos (759 000) y un número de muertes que sobrepasa 600 000 por primera vez desde la post-guerra (614 000). El flujo de entradas de extranjeros sometidos a la obligación de un permiso de residencia ha aumentado (237 742 personas, +9% respecto a 2016). Este flujo se masculiniza por causa de la proporción creciente de personas que provienen de África y de Asia. Francia se caracteriza por una tasa de inmigración de las más bajas de Europa. Con un índice coyuntural de fecundidad de 1,87 hijos por mujer, Francia sigue siendo el país más fecundo de Europa. El índice coyuntural de interrupción voluntaria del embarazo fue de 0,56 por mujer en 2018. Poco a poco, el número de pacs (pacto civil de solidaridad) se acerca al número de matrimonios (4 pacs por 5 matrimonios). Las uniones entre personas del mismo sexo se mantiene estable en 2017 (3,1 % de los matrimonios y 3,8 % de los pacs). Por último, la esperanza de vida sigue aumentando pero a un ritmo más lento. Es la más alta de Europa para las mujeres, pero no para los hombres (9° lugar). Si Francia se distingue por una baja prevalencia de las muertes por enfermedades cardiovasculares, la situación es claramente menos favorable para la mortalidad de los jóvenes y especialmente de los muy jóvenes (mortalidad infantil).

Keywords: France, demographic situation, migration, fertility, partnerships, marriage, civil union, consensual union, divorce, dissolution, same-sex couple, ageing, mortality, mortality by cause of death, European comparisons

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