

# Does religious practice influence fertility behaviour in France?

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## Introduction

Religious practice has declined in France over the generations. Fewer people state that they attend other than special ceremonies (weddings, christenings, funerals), and in addition to that change, practising believers are observed to attend services less frequently.

This change in religious practice parallels major changes in family behaviour, particularly fewer marriages, more divorces, and a growing proportion of families formed outside marriage. Couples' completed fertility has also fallen, which is largely explained by access to modern contraception and the increase in women's workforce participation. But fertility behaviour is probably also influenced by religion and religious practice. The Roman Catholic church, to which a large majority in France still belong, continues to oppose the use of modern contraception and to encourage fertility within marriage; and the same is true of other smaller religions in France, such as Islam and Judaism, for whom a large family is sometimes seen as a gift from God. Individuals' degree of religious belief is consequently still likely to have some influence on their fertility behaviour.

However, no recent study has been done in France on the relationship between family behaviour and religion, in the absence of an adequate source of data. The only questions asked in previous population surveys carried out by INSEE and INED related to the feeling of belonging to a religion (with no details about which one) and the frequency of attendance (regular, occasional, never)<sup>1</sup>. These questions were examined in relation with marital behaviour (Leridon and Villeneuve-Gokalp, 1994, for example) or the use of contraception (Leridon *et al.*, 1987; Leridon and Toulemon, 1990), but these analyses are relatively dated. Furthermore, to our knowledge, the actual religious affiliation has never been examined in relation with fertility levels in France.

In 2005, for the first time, a specific question concerning present or past religious affiliation was included in the *Étude des Relations Familiales et Intergénérationnelles* (ERFI), the French version of the international Generations and Gender Survey (GGS)<sup>2</sup>: "What religion do you / did you once belong to?"; another question measured attendance more exactly: "How often, if at all, do you attend religious services (not counting weddings, funerals, christenings, etc.)?". The survey was carried out in metropolitan France on 10,079 men and women aged 18 to 79, who were also questioned about many aspects of their personal event histories. . This makes it possible to present the state of religious affiliation and attendance in 2005 according to age at that date. These results enable us to construct an indicator of "regular" or "occasional" attendance that is relevant to changes in attendance over generations. Using this indicator, we examine the differential changes in fertility behaviour according to religious practice and in particular the birth of the first child and family size. Finally, we estimate to what extent changes in religious practice are "responsible" for the reduction in completed fertility.

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<sup>1</sup> These are the surveys from which samples are taken from the census files.

<sup>2</sup> <http://www.unece.org/ead/pau/ggp/>

# I. Religious change in France

## 1. Religion: a supposedly “sensitive” subject.

In France no current public statistical survey records religious affiliation<sup>3</sup>, unlike the case in other countries<sup>4</sup> or what was done in this country until the 1872 census (Djider and Marpsat, 1990). The question was removed during the Third Republic (1871-1940) because of its private nature, and is still considered by the statistical authorities to be a “sensitive” question within the meaning of the 1978 law. This reluctance to ask people about their religion is easier to understand against the background of the history of mid-20th-century France, especially the fear that individual files might be kept of people’s religion.

However, for the ERFI survey, INED submitted a specific request to the quality label committee<sup>5</sup> to be allowed to ask, “What religion do you belong to?”. Since the inclusion of this question was deemed admissible by the competent authorities, it could indeed be asked, but on certain conditions. First, as for all surveys, no link should be possible between the answers and any directly or indirectly identified information. Second, the respondent should remain free not to answer the question: first, the option “Prefer not to answer” was added. Finally, a procedure of “express authorisation” was used for this question<sup>6</sup>. At the end of the survey, every person who had indicated their religion was asked to sign a form saying they had been informed of the “sensitive” nature of the question<sup>7</sup>. If the person refused, the information relating to that question was deleted.

Because of these precautions and the fear that may have been aroused by this procedure<sup>8</sup>, 570 of the 10,079 respondents refused to sign the document. When those who replied at the outset that they preferred not to answer are added, this means that we do not have the religious affiliation of 7.6% of the people surveyed.

A rapid examination of the characteristics of these non-respondents shows that they were slightly more to be found among older people, probably more suspicious of this procedure, and among foreigners. Whereas 10% of the survey respondents were foreigners, they accounted for 16% of those who did not wish their answer to be recorded. Furthermore, the average age was 51 compared with 47 for all the respondents. However, the people who refused an “uncoded” record of their religion were no different from the others in terms of religious practice<sup>9</sup>: whether or not they agreed to a record of their religious affiliation, 75% stated that they never attended religious services, 14% attended less than once a month, 4%

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<sup>3</sup> Individuals’ religious affiliation can however be found in surveys carried out by private institutes or research centres using the quota method.

<sup>4</sup> For example, the question is included on the census form in such countries as Switzerland, Austria, Portugal, etc.

<sup>5</sup> A committee of the national council for statistical information (CNIS), which examines and approves survey questionnaires.

<sup>6</sup> This was also used for those who answered the question “Are you in a civil union?”, since civil union (PACS) was at that time on the list of “sensitive” questions, which is no longer the case.

<sup>7</sup> The precise wording was, “We remind you that the answers you have given us are strictly anonymous and protected by statistical confidentiality. However, Article 8 of the Law of 6 January 1978 invites us to ask you for your authorisation to record the answers you have given to questions concerning religion (and/or PACS). Do you agree to these answers being recorded?” The express authorisation form was personally identified and had to be signed and dated.

<sup>8</sup> Some people may have doubted the anonymous nature of the survey, since the form was personally identified; furthermore, having to sign a document may have made some people fear that they were committing themselves to something they did not fully understand, or again that the answers were not anonymous.

<sup>9</sup> The question of how often someone attended services was not subject to express authorisation, which made it possible to compare the attendance of those who did or did not agree to sign the express authorisation.

once or twice a month, and 7% more than twice a month. One may therefore suppose that the bias caused by this non-response is limited for achieving a picture of religion in France overall. There is no reason for the subsequent examination of fertility behaviour to be biased, since we are comparing different categories of people by religion and religious practice. The results are not *a priori* distorted by the non-response, if one accepts the reasonable hypothesis that, for example, the practising Catholics who did not sign the express authorisation do not exhibit family behaviour significantly different from those who stated their religion.

### 2. Religious affiliation across age groups

Despite a relatively high non-response rate for religious affiliation (8%), we first present a snapshot picture of religion in France for the various age groups (Figure 1). Although this country remains preponderantly Catholic (80% express a link with Roman Catholicism, 5% with Islam and 2% with Protestantism, while 11% state no link with a religion<sup>10</sup>), there are major differences according to age. First, the proportion of Catholics is lower among younger people. Of those who have a religion, 88% of the 18-24 age group state that they are Catholic, compared with 95% of the 65+ group. This decline in Catholicism is compensated by a rise in Islam, both because Islam is better represented in absolute terms in all the younger age groups, and even more in relative terms among those who state a religion. The proportion of people stating no religion (present or past) is higher the younger the respondent: 25% of the 18-24 group state no present or past religious affiliation, compared with fewer than 4% of the 65+ group.

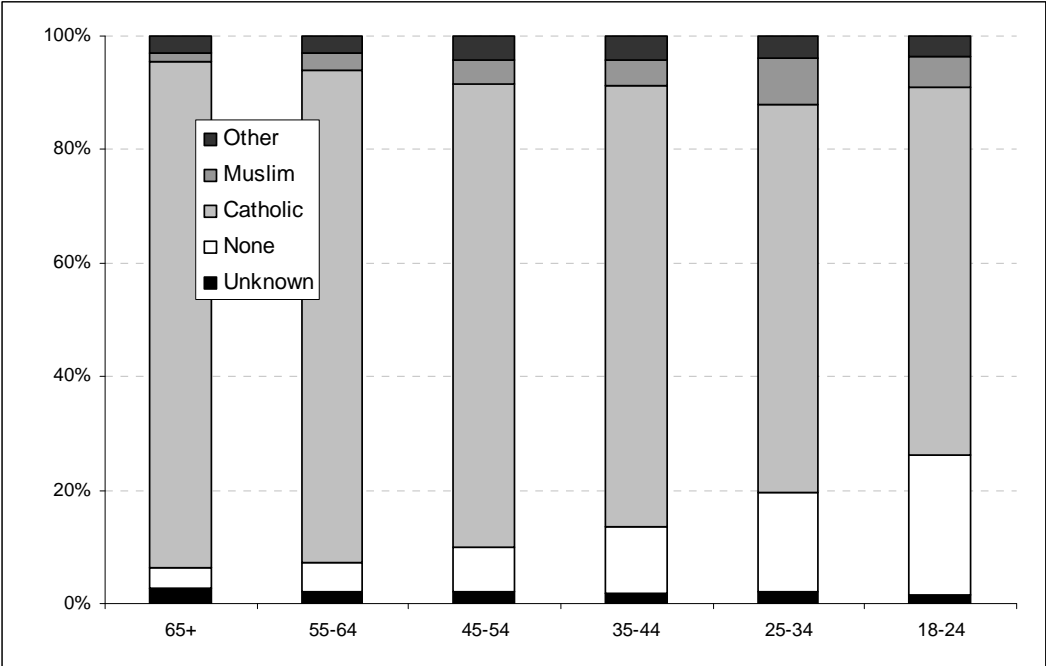


Fig. 1. Distribution of stated religion by age group (France, 2005)

Source: INED-INSEE, ERFI-GGS1, 2005

Since the proportion of people without a religion is higher among the younger groups, it is not surprising that the proportion of practising believers is lower: whereas 62% of the 65+ group (whether or not they stated a religion) say that they never attend religious services, the figure is 83% for the 18-24 group (Figure 2). When they do attend, the youngest do so less

<sup>10</sup> These proportions are calculated from all those who agreed to answer the question.

frequently: 42% of practising believers aged 65 and over attend services at least twice a month, compared with only 18% of practising believers under 24.

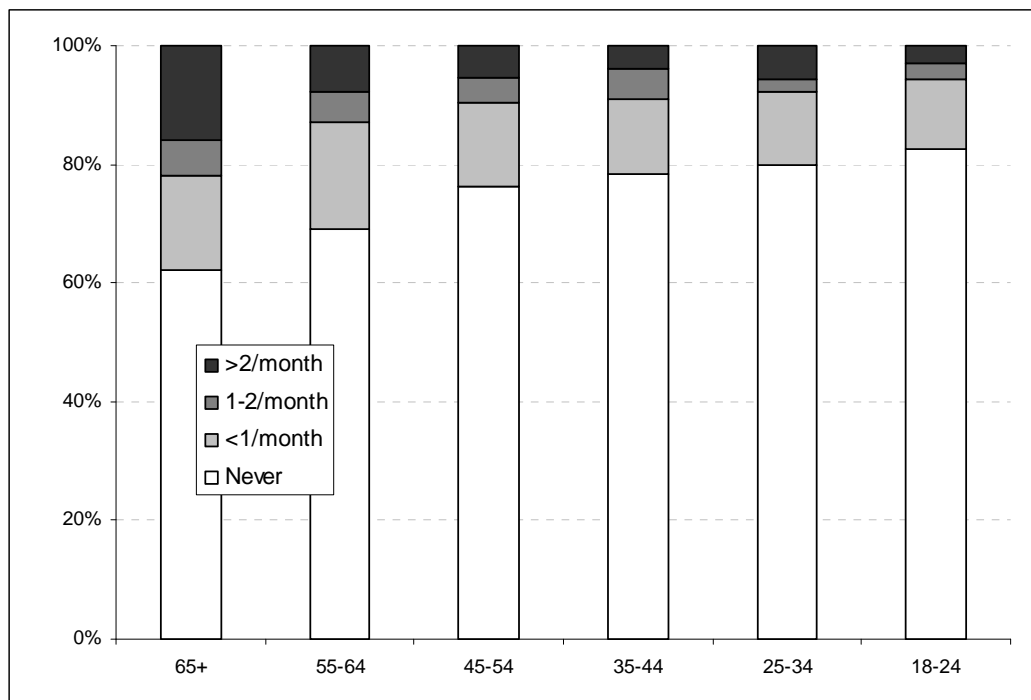


Fig. 2. Distribution of religious practice by age group (France, 2005)

Source: INED-INSEE, ERFI-GGS1, 2005

This generational effect is to some extent reduced by changes in religious affiliation within the various age groups of practising believers. We saw above that Islam and “other religions” are increasingly represented in France. It is for these religions that the probability of attending services at least twice a month is highest, compared with Catholicism, *ceteris paribus* (Table 1, Total column); furthermore, no marked generational effect appears among Muslims (Table 1, Muslim column), unlike Catholics. In addition to the effects of age and present or past religious affiliation, religious practice also correlates with nationality and sex: the likelihood of attending services at least twice a month is higher among foreigners and women, for all religions taken together. But the influence of sex is reversed according to the religion: whereas Catholic women attend services more than men, it is the opposite among Muslims.

A number of effects combine to account for higher attendance by the oldest groups. First, previous research based on longitudinal data has shown that attendance tends to increase with age: 16% of those born in 1928-1947 declared regular attendance in 1987; nine years later, the figure for that group was 20% (Niel, 1998). But this rising frequency over a lifetime only explains to a minor extent the gaps observed between age groups. Another factor is the decline in the importance of religion in people’s lives and the rise in individualism. Neither women nor men will allow an external principle to affect their individual aspirations (de Singly, 1996). Although a large proportion of people declare a past religious affiliation, because they were brought up by practising parents, and although religion still has an influence on marital behaviour (people marry in church “by tradition”, “to please parents or grand-parents” [Régnier-Loilier, 2007]), many no longer practise or only on occasions.

Table 1. Estimated  $\beta$  parameters for a logit model comparing attendance at religious services at least twice and less than twice a month;

		TOTAL		CATHOLIC		MUSLIM	
	Constant	-3.3469	***	-3.7261	***	-0.8773	**
Age	18-24	-0.5083	**	-0.6318	**	0.1388	-
	25-34	-0.0337	-	-0.5496	**	0.9484	**
	35-44	-0.4318	***	-0.5991	***	0.452	-
	45-54	0	ref	0	ref	0	ref
	55-64	0.406	***	0.5974	***	-0.0353	-
	65+	1.3515	***	1.552	***	0.9948	-
Sex	Male	0	ref	0	ref	0	ref
	Female	0.4136	***	0.8185	***	-1.1993	***
Nationality	French	0	ref	0	ref	-0.2695	-
	Naturalised	-0.1173	-	0.302	-	-0.96	**
	Foreign	0.7953	***	1.4627	***	0	ref
Religion	Catholic	0	ref				
	Muslim	1.6786	***				
	Other	1.601	***				
	None	-4.1297	***				
	Unknown	0.3392	-				
Number	Twice or more/ month		658		485		81
	Less than twice/month		8,811		7,096		267

Interpretation: example for the “Total” model: a statistically significant positive coefficient indicates that this is a factor that increases the probability of attending religious services at least twice a month. Conversely, a negative coefficient indicates a factor that increases the probability of attending religious services less than twice a month. The higher the statistically significant coefficients, the greater the effect.

Key: ref: reference situation; \*\*\*: 0.01 significance level; \*\*: 0.05 significance level; \*: 0.10 significance level; - : not significant.

### 3. “Regular” attendance relative to age group

The above results clearly show a development of religious practice across age groups. “Regular” attendance at services, in terms of the average or median value for each age group, used to mean once a week, whereas now it overwhelmingly means once a month: 47% of practising believers<sup>11</sup> aged 75-79 stated that they attended services at least once a week compared with 17% of the 20-24 age group, in which 69% attend less than once a month. Furthermore, we saw that women are more likely to attend services regularly, *ceteris paribus*.

Since we wish to evaluate the effect of religious practice on changes in men and women’s family behaviour from one age group to another, we constructed an indicator of practice relative to a person’s age group and sex.

We calculated the median frequency of religious practice for each five-year age group for men and women separately. The practising believers in each age group were divided into two categories: those whose religious practice is above or equal to the median for their age and sex, and those whose practice is below the median. In the rest of the study, we compare the family behaviour of the following four sub-groups:

<sup>11</sup> People who never attend services are not included.

- “No religion”: people who declare that they do not attend services and have no past religious affiliation;
- “Non-practising”: people who declare no attendance but do indicate a past religious affiliation;
- “Occasional attenders”: people with present religious affiliation and attendance below the median for their age group;
- “Regular attenders”: people with present religious affiliation and attendance above or equal to the median for their age group.

However, because of the relatively small numbers belonging to faiths other than Catholicism, it was not possible to consider the various religions separately.

To examine more closely changes between cohorts, we took moving fifteen-cohorts averages, except for the oldest and youngest, where the averages are calculated from 13, 11 and 9 cohorts. Each average value was attributed to the middle cohort. Since this cohort study cannot be used to examine the behaviour of people born after 1960<sup>12</sup>, in some cases (proportion of births outside marriage, timing of first birth) we made the same type of calculation based on the year of the event, which makes it possible to examine changes right up to recent years. As far as possible, we examined men and women’s behaviour separately where the numbers allow.

## **II. Religion and fertility behaviour**

The influence of religion on fertility behaviour may be observed by examining the birth of the first child and the size of completed fertility of men and women according to their attachment to religion.

### *1. A limited effect on the timing of the first child...*

Since the most practising believers are more attached to marriage than non-attenders and non-believers, particularly when they have or wish to have children, one might expect to see a major effect of religious practice on the frequency of births outside marriage. However, the rising share of births outside marriage has affected all categories (Figure 3). From 1960 to 2000 the proportion of first births outside marriage increased by a factor of 2.2 among non-believers (from 30% to 67%) and occasional attenders (from 17% to 36%), by 2.8 among regular attenders (from 11% to 31%) and by 3.4 among non-practising believers (from 15% to 53%). However, these behaviours still vary markedly and the spread is even increasing: in 2000, one-third of first births to regular attenders occurred outside marriage, compared with half to non-practising believers and two-thirds to non-believers.

It will be noted that the behaviour of non-practising believers and occasional attenders was similar for births outside marriage occurring from the early 1960s to the late 1970s, and then they moved apart from 1980, a phenomenon that raises doubt concerning the validity of the indicator chosen for relative religious practice. At an earlier date, attending infrequently (less often than the median) appears to have been similar to not attending at all, whereas since the 1980s, occasional attenders have been moving closer to regular attenders. Occasional

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<sup>12</sup> For example, a woman needs to be at least 40 years old and a man 45 for their completed fertility to be estimated.

attendance clearly no longer means what it did in the past and probably indicates more of an attachment to the principles of religion.

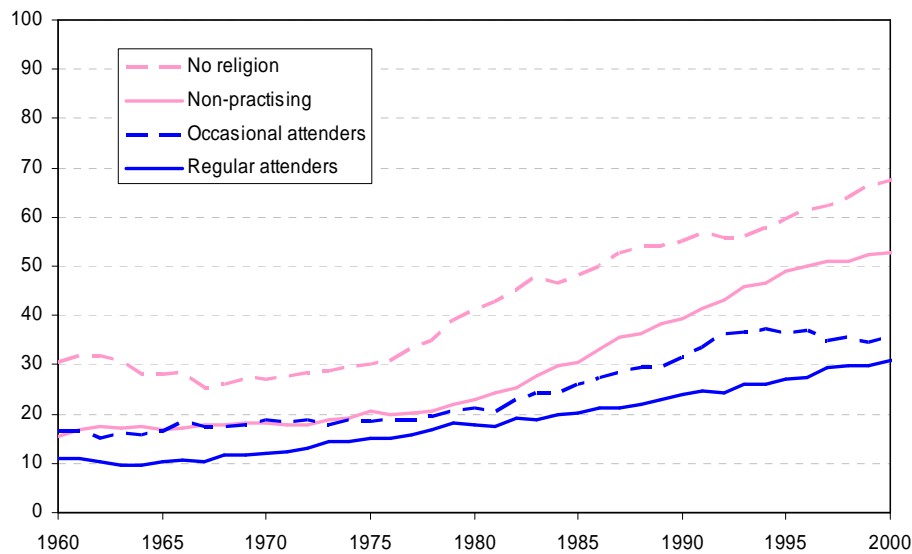


Figure 3. Proportion of first births outside marriage, by religious practice

Source: INED-INSEE, ERFI-GGS1, 2005

Population of reference: Rank 1 children born from 1960 to 2000

The birth of the first child once depended to a great extent on the timing of weddings, since marriage often marked the beginning of the spouses' sexual life together. In the virtual absence of contraception in the 17th and 18th centuries, many births occurred after nine or ten months of married life. A direct link could therefore be observed between the seasonality of weddings and that of first births, and thus, implicitly, between age at marriage and age at the time of the first child (Leridon, 1973; Houdaille, 1985). However, with the legalisation of contraception in France by the Neuwirth law in 1967 (Régnier-Loilier and Leridon, 2007) and the arrival of modern contraceptive methods, the frequency of births of children conceived at the start of a marriage declined. The proportion of births occurring between eight and eighteen months of married life fell from 34% to 23% between 1965 and 1976 (de Saboulin, 1978) and the relationship between marriage and the first child gradually weakened (Desplanques and de Saboulin, 1986) (especially since, as we have seen, most rank 1 births now occur outside marriage). But, within this general trend, we may examine the effect of religion on behaviour, and more specifically, whether "regular attenders" have continued to obey the Church's precepts concerning contraception: it will be recalled that the encyclical *Humanae Vitae* in 1968 reasserted the condemnation of any method of "birth control" other than "natural"<sup>13</sup> ones (Leridon, 1987).

It appears that they have not. The proportion of first children born in the two years following the formation of a couple differs little by degree of religious practice and declines at roughly the same rate in all categories: between 71% and 86% for children born before the 1960s, and roughly 40% for children born in the 1990s. Only in the most recent period (1992-2000) have regular attenders moved apart from the others, with a proportion of first births in the first two years of marriage stabilising and even rising, a figure of 56% in 2000 compared with less than

<sup>13</sup> In practice, the Ogino method based on temperature and the Billings method (cervical mucus test).

33% for the other categories (Figure 4). This recovery is probably partly due to the rising share of “other religions”, particularly Islam, within the group of regular attenders.

The lack of a link between birth timing and religion until the 1990s confirms that practising believers, like other people, quickly made use of modern contraception (Leridon and Toulemon, 1990), despite the Church’s position.

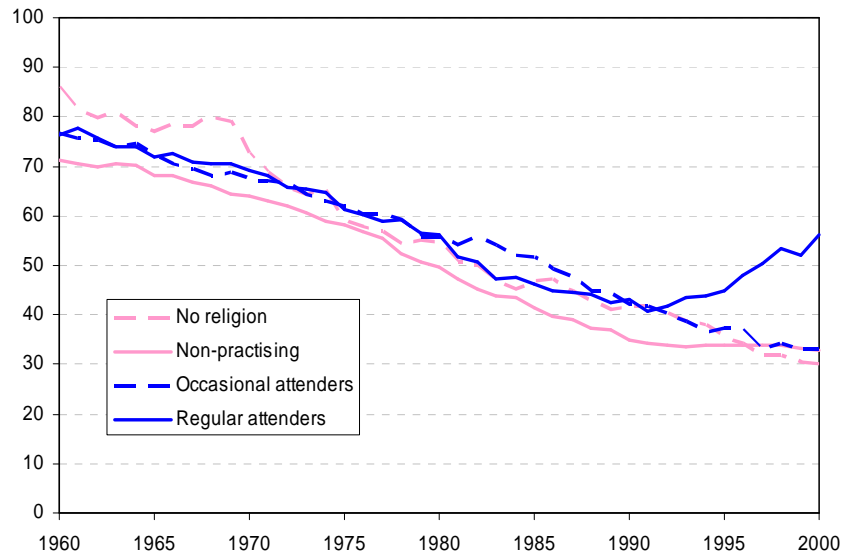


Figure 4. Proportion of first births occurring in the first two years of living together, by religious practice

Source: INED-INSEE, ERFI-GGS1, 2005  
Population of reference: Rank 1 children born from 1960 to 2000

## 2. ...but marked differences in completed fertility

We first examine the proportion of people who have had no children by the end of their fertile lives. During the 20th century, childlessness fell significantly: 23% among women born in 1900 and less than 10% among those born in 1959 (Prioux, 1994; Daguet, 2002). Was this development the same for the entire population or did it vary according to religious practice?

In the earliest cohorts, from 1935 to 1950, the proportion of childlessness among people who had lived as a couple was fairly similar whatever their religious practice and the differences observed between categories are not significant (Figure 5). From the 1950 cohort on, however, childlessness varies according to people’s attachment to religion. Whereas it increases for non-believers (from 8% to 16% for the 1960 cohort), non-practising believers (8% to 11%) and occasional attenders (7% to 12%), it falls slightly for regular attenders (7% to 5%). Strong religious affiliation leads therefore more often to founding a family, and the level of childlessness falls almost to the minimum possible: most childless regular attenders have probably had medical difficulties with conception<sup>14</sup>.

<sup>14</sup> Childlessness is found in 8% of couples, divided equally between those who were never able to have a child and those who did not want to (Toulemon, 1995). Furthermore, the slight fall in childlessness in this category is probably due to medical progress in the treatment of hypofertility and sterility.



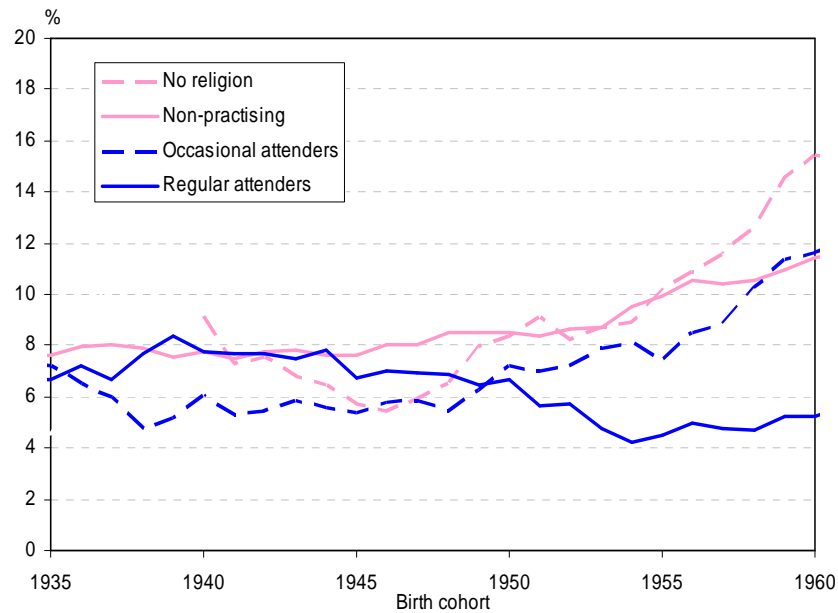


Figure 5. Proportion of childless men and women by religious practice

Source: INED-INSEE, ERFI-GGS1, 2005

Population of reference: Men and women born from 1935 to 1960 who had lived as a couple

Since the rate of childlessness is lower for the most practising believers, one would expect to observe similar variation in completed fertility. First, one notes that fertility and the influence of religious practice are rather different for men and women (Figure 6a).

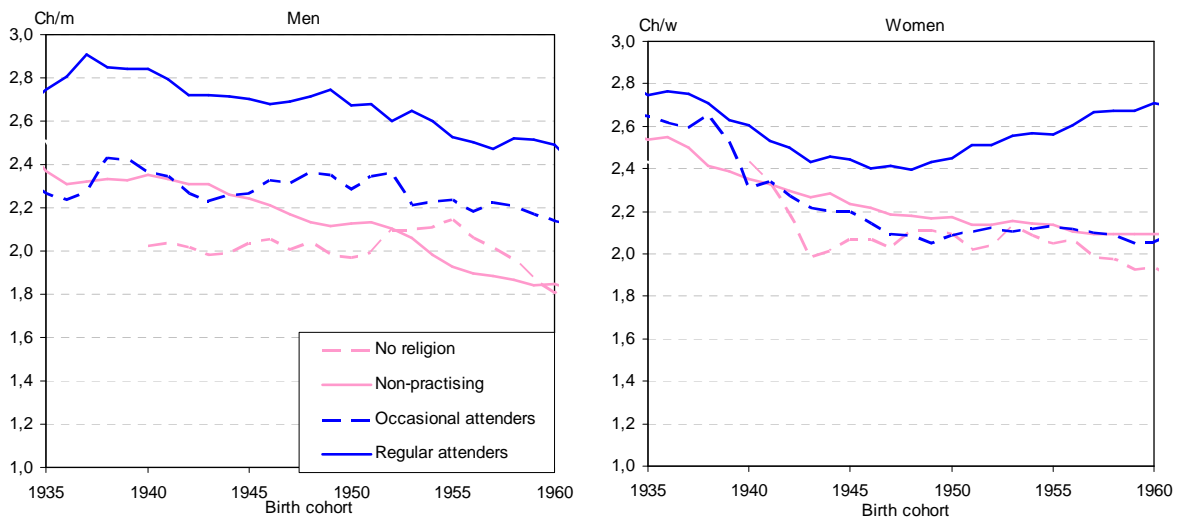


Figure 6a. Completed fertility by religious practice

Source: INED-INSEE, ERFI-GGS1, 2005

Population of reference: Men and women born from 1935 to 1960 who had lived as a couple

Among men, the fertility of regular attenders is higher than that of occasional attenders, whatever the cohort (among those born in 1940, the former had 2.8 children on average and the latter 2.4, and these averages were 2.5 and 2.1 respectively for the 1960 cohort). Male non-believers and non-practising believers, on the other hand, have fewer children on average (1.8 for the most recent cohort). The intersection of the curves after the 1952 cohort is

particularly difficult to explain<sup>15</sup>. Whatever the level of religious practice, there is a slight reduction in completed fertility between cohorts, falling from an average of 2.4 for the 1935 cohort to 2.1 for the 1960 cohort. Although some of the reduction observed for men may be due to the fact that those who were born in 1965 were only 45 at the date of the survey and some may yet have another child, the effects on completed fertility will be minor. The proportion of men over 45 who have children is relatively low, about 5% (Bessin, Levilain and Régnier-Loilier, 2005).

Although on average women's completed fertility also declines between the same cohorts, from 2.6 children to 2.1, the effect of religion becomes more marked over time. Regular attenders have higher fertility in all cohorts, and the gap widens after the 1946 cohort. Whereas, whatever women's religious practice, their completed fertility declines until the 1946 cohort, this reduction continued afterwards for all categories except regular attenders, whose fertility begins to rise again after the 1950 cohort. This development may be compared with that of childlessness among the various categories.

This differentiation of fertility behaviour after the 1950 cohort is probably due to a stronger selection effect: regularly attending services seems to have an increasing effect on fertility behaviour, whereas there is no longer much difference between the other categories.

In order to check whether this specific behaviour of the most practising female believers was due to the increasing presence of foreigners and Muslims in this category, the same analysis was made with a population of reference of French Catholics only (Figure 6b). The same trends are found, although average completed fertility is somewhat lower: 2.6 children for women in the 1960 cohort, compared with 2.7 taking all religions together. Conversely, among men, the observed gap between regular and occasional attenders, taking all religions together, is quite different when only Catholics are considered. The higher completed fertility of regular attenders is thus mainly due to the fact that male fertility is significantly higher among other religions.

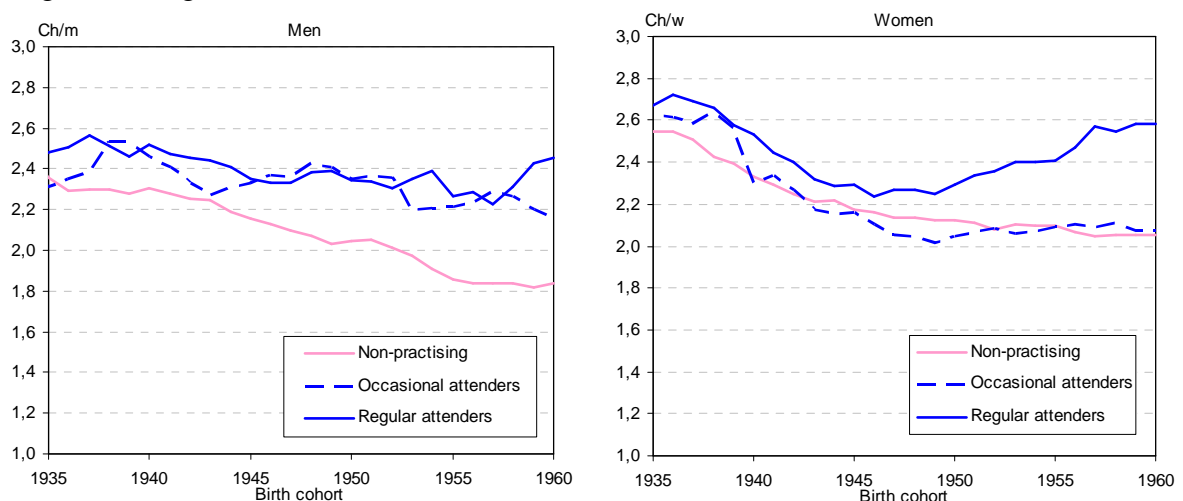


Figure 6b. Completed fertility by religious practice (Catholics only)

Source: INED-INSEE, ERFI-GGS1, 2005

Population of reference: Catholic men and women born from 1935 to 1960 who had lived as a couple

<sup>15</sup> The higher fertility of non-practising male believers among the pre-1952 cohorts might be due to the fact that they might be living with a practising partner, and therefore more likely to be married, etc., unlike male non-believers who were probably less likely to form a couple with a women who practised her religion.

### 3. Is it the influence of religious affiliation or the frequency of attendance? A *ceteris paribus* approach

We saw above that the frequency of attendance at religious services depended on religious affiliation: whereas only 6% of Catholics aged 18-79 attend services at least twice a month, the figure is 25% among Muslims and 23% among members of other religions. As the proportion of Catholicism has fallen over time, today's regular attenders (those whose attendance is above average) belong increasingly to other religions. We sought to check whether the observed differences in fertility behaviour were due to religious practice or religious affiliation. To measure the specific effect of each characteristic *ceteris paribus*, various regressions were made for women. In addition to the frequency of attendance and past or present religious affiliation, the variables of cohort and educational level were introduced into the model, since these were likely to be correlated with not only fertility behaviour but also religious practice.

Table 2. Estimated  $\beta$  parameters for logit models relating to women's fertility behaviour

		Having 3 vs 1 or 2 children		Having 1st child in first 2 years vs later		Having 1st child outside vs within marriage	
Constant		-0.60	***	0.27	***	-1.22	***
FREQUENCY OF ATTENDANCE	Never	0.00	ref	0.00	ref	0.00	ref
	<once / month	0.12	-	0.09	-	-0.18	-
	once or twice / month	0.46	***	0.07	-	-0.59	***
	> twice / month	1.04	***	0.25	-	-0.93	***
RELIGION	None	-0.01	-	-0.03	-	0.73	***
	Catholic	0.00	ref	0.00	ref	0.00	ref
	Other	0.74	***	0.16	-	-0.08	-
	Not known	0.02	-	-0.07	-	0.03	-
COHORTS	1931-1940	0.39	***	0.65	***	-0.96	***
	1941-1950	-0.04	-	0.61	***	-0.31	**
	1951-1960	0.00	ref	0.00	ref	0.00	ref
	1961-1970	-0.10	-	-0.36	***	0.93	***
QUALIFICATION	< Bac <sup>†</sup>	0.00	ref	0.00	ref	0.00	ref
	Bac	-0.56	***	-0.51	***	-0.15	-
	> Bac	-0.42	***	-0.65	***	-0.13	-
NUMBER	3 or more children		1062	First 2 years	1580	Outside marriage	720
	1 or 2 children		1920	After 2 years	1218	Within marriage	2259

<sup>†</sup> *Baccalauréat*: national secondary-school diploma

Population of reference: Women who had lived in a couple and had at least one child

Interpretation and key: See Table 1.

The results (Table 2) show few significant differences in completed fertility between Catholic and non-believing women. However, the likelihood of having at least three children is much higher for other religions ( $\beta=0.74$  and significant). The effect of high attendance is also confirmed: the women who attend religious services at least once a month more often have large families than those who attend occasionally. The cohort and qualification effects are also confirmed. The more highly qualified women less often have three children, a finding in line with standard research (Breton and Prioux, 2006; Régnier-Loilier, 2007).

The non-variable nature of fertility timing by religious practice and affiliation is confirmed, at least for the probability of having a child in the first two years of living together. To have a child so early is, however, less frequent among the most recent cohorts, whatever the religious affiliation or practice, and less frequent among more highly qualified women. The latter usually wait longer after leaving the education system and living as a couple before they become mothers (Robert-Bobbé and Mazuy, 2005), since many wish to recoup their educational investment and enjoy life as a couple before starting a family (Régnier-Loilier, 2007).

The influence of religion on births outside marriage is also confirmed. These occur more frequently among non-believers and are less frequent in proportion to religious attendance. A specific cohort effect can once more be seen: births outside marriage are increasingly frequent, *ceteris paribus*. However, educational qualification has no significant effect on the likelihood of having a first child outside marriage.

#### 4. Changes in religious practice explain part of the reduction in family size

To end this study, we sought to evaluate what proportion of the reduction in completed fertility observed from the 1930 to 1960 cohorts could be directly ascribed to changes in religious practice. We applied to each cohort the category breakdown (non-believers, non-practising believers, occasional and regular attenders) observed for the earliest cohorts (1929-1931), respectively, for men, 4.4%, 62.1%, 12% and 21.5%, and, for women, 4.7%, 47.7%, 24.9% and 22.7%. Then we calculated for each cohort a theoretical completed fertility corresponding to the average of the fertilities observed in each category, weighted by the reference breakdown. The theoretical completed fertility obtained in this way corresponds to what would have happened to family size over time if religious practice had remained stable throughout the period, allowing for changing behaviour within each category. The difference between theoretical and observed completed fertility provides some estimate of the effect of changes in religious practice for the cohorts from 1930 to 1960 (Figure 7).

Without repeating the changes in men and women's completed fertility during the period, we do observe that changes in religion did contribute to lower fertility. At the end of the period, observed fertility was 1.81 children for men and 2.07 for women, whereas the fertility obtained by holding religious practice unchanged since the 1930 cohort was 1.9 for men and 2.14 for women.

So observed fertility fell from 2.31 to 1.81 children for men, an absolute reduction of 0.50 children per man, whereas with unchanged religious practice, the difference would have been 0.41. It may be concluded that changes in religious practice contributed 18% to the reduction in family size<sup>16</sup>. Among women, observed fertility fell from 2.55 to 2.07 children, a reduction of 0.48 children per woman, whereas the difference would have been only 0.41 if the breakdown of women by religious practice had remain unchanged since the 1929-1931 cohorts. Changes in religious practice consequently explain 15% of the reduction in women's completed fertility over the period.

In the light of these initial estimates, the factor of religion appears to explain a non-negligible proportion of the fall in fertility observed from the 1930 to the 1960 cohort. However, these estimates are open to dispute in a number of respects. First, we saw in the earlier analyses that regular attenders in the past and the present as we defined them (compared with the median for each cohort) are probably not similar. Applying the 1930 breakdown of religious practice to later cohorts is consequently disputable. Furthermore, as

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<sup>16</sup>  $[(0.5-0.41)/0.5]*100$ .

we have mentioned, religious practice does not remain the same over a lifetime, and in particular it increases after the age of 60. The people born in 1930 were perhaps more regular attenders at the date of the survey than they were at the age when they were having children.

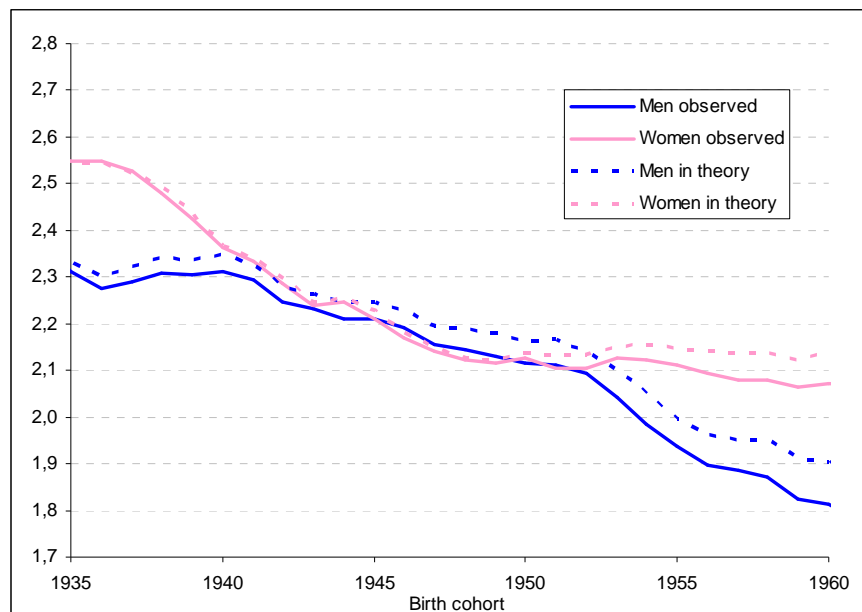


Figure 7. Completed fertility as observed and in theory (with unchanged religious practice since 1930 birth cohort)

Source: INED-INSEE, ERFI-GGS1, 2005

Population of reference: Men and women born from 1935 to 1960 whether or not they had lived as a couple

## Overview and conclusion

The weakening of religious practice in France has been accompanied by a diversification of religious affiliation. Catholicism, the preponderant religion among older people, has retreated considerably. Among young people this retreat has mainly been expressed as an increase in non-believers (one in four 18-24-year-olds state that they have no religious affiliation either present or past), and partly by an increase in Muslims: 8% of the 25-34 age group, and 5.5% of the 18-24 age group state that they belong to Islam.

Despite this diversification of faiths, the size of the minority religions in France is still too small for any comparison of behaviour among religious groups to be made from the ERFI survey.

After constructing an indicator of relative regular attendance for each cohort, we examined whether the degree of practice of a religion (whichever it might be) influenced fertility behaviour by comparing the behaviour of regular and occasional attenders with that of non-practising believers and non-believers.

The intensity of religious practice still strongly determines the family life-cycle of the cohorts examined (1930-1960), particular women: for the most practising believers, marriage, still an almost inevitable choice, has remained a commitment for life (Régnier-Loilier and Prioux, 2008); it is the framework within which children are usually born, childless couples are rare and completed fertility, above average, has even increased among the most recent cohorts. Conversely, declared non-believers have more complex marital trajectories, they

reject marriage more than others, their childlessness is rising and their completed fertility is often the lowest. The behaviour of non-practising people — the largest category — falls between the two extremes, while that of occasional attenders is often closer to that of non-believers than that of regular attenders. While this “new” family behaviour has gradually spread in each of these categories, the greater distance from religion of successive cohorts has accentuated the general trend. We may estimate that the reduction in religious practice “explains” between 15% and 18% of the reduction in fertility by cohort.

The cohorts born after 1960 were too young at the date of the survey for it to be possible to fully report on their family life-cycles, but the cross-sectional analyses we have made for certain events show that these changes continued, whatever the degree of attachment to religion, with longer intervals between forming a couple and the birth of the first child, and a higher proportion of children born outside marriage. However, in recent years, these trends have stopped or considerably slowed down among those most attached to their religion, suggesting the presence of a sub-population that remains attached to religious precepts. This resistance is partly due to the increasing proportion of Muslims among the most practising believers.

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## **Abstract**

No recent study has been done in France on the relationship between fertility and religion, in the absence of an adequate source of data. In 2005, for the first time, a specific question concerning present or past religious affiliation was included in the GGS survey and another question on frequency of attendance. In this study we paint a portrait of religion in France and then, after constructing an indicator of attendance “relative” to each cohort, we compare fertility behaviour for each category according to cohort: completed fertility, childlessness and timing of the birth of the first child. Regular attendance remains associated with high completed fertility, but more recently a relationship has appeared between religious practice and, on the one hand, couples’ childlessness, and, on the other, the timing of the birth of the first child.