Religion Mattered: Religious Differences in Switzerland and Their Impact on Demographic Behaviour (End of the 18th Century to the Middle of the 20th Century)

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Anne-Lise Head-König [*]

Abstract: *»Auf die Konfession kam es an: Religiöse Unterschiede in der Schweiz und ihre Auswirkungen auf das demographische Verhalten (Ende 18. bis Mitte 20. Jahrhundert)«*. The impact of the two main religions on demographic behaviour until the middle of the 20th century is striking and, depending on religious affiliation, remarkable differences can be observed with regard to celibacy, fertility and size of family. In Catholic regions all three were much higher at the end of the 18th century already. As from the middle of the 19th century migration increased considerably to Protestant towns and industrialised regions from within the country and from abroad and this included a large number of Catholics. Migration affected both the migrant and the indigenous populations. On the one hand those immigrants coming from regions practising little or no birth control adopted the family limitation characteristic of the local population after a period of adjustment and, on the other hand, immigrants practicing family limitation influenced the conservative agrarian Catholic population that received them. Nevertheless, important differences existed within each main religion and there was also some notable atypical demographic behaviour according to affiliation within Protestantism, as seen in Pietism, and to a certain extent, too, within the Catholic population, depending on their political views. The erosion both of the "State" religion and of the influence of the Catholic Church as from the end of the 19th century contributed above all in urban and industrialised contexts to an increase in the proportion of mixed marriages and to a process of secularisation which resulted in a significant reduction in fertility.

Keywords: Protestantism, Catholicism, Calvinism, Pietism, Dissidents, secularisation, migration, celibacy, marriage, mortality, fertility.

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1. Introduction. The Relative Importance of the Different Religions and the Main Changes in their Distribution within the country over Time

In the context of Switzerland it is of particular interest to consider to what extent demographic behaviour was influenced by religious affiliation. This subject is all the more relevant in that, in the individual cantons at least up to the Second World War, we can observe considerable differences with regard to the significance and timing of the various demographic factors in respect of the proportion of those who never married, age at marriage, fertility and mortality. It is evident that the physical environment, whether lowlands or highlands, and economic factors such as industrialisation, urbanisation and the development of communication, all played a significant part in the changing behaviour that can be observed in the course of the nineteenth and twentieth centuries. Nevertheless, there remain considerable demographic variations from one Swiss canton to another which at first sight cannot be attributed to major socio-economic differences and which doubtless must be imputed to differences in religious culture and affiliation.

For all that, it would be wrong to explain the overall evolution of the various religious groups within Switzerland in the 19th and 20th centuries solely on the basis of the demographic behaviour of the indigenous population. Immigration, especially to the towns and industrialised regions, has also played a major role in influencing the evolution of the different confessions and in modifying the number of adherents to a specific confession. Indirectly, immigration similarly modified the relationship one section of the population had with its own religion due to the influence exercised on it by other religious groups living in the same geographical region. As from the middle of the 19th century, internal migration within the national boundaries and immigration from abroad contributed to the intermingling of confessional groups. As a result there was a significant increase in the number of mixed religious marriages and in the first decades of the 20th century one can clearly detect how certain indifference in respect of the religious affiliation of these couples affects demographic behaviour.

At the beginning of the 19th century, Protestants and Catholics are still living as clearly defined political entities since, apart from a few cantons and regions with a mix of religious groups that had existed since the 16th century, the religion was a State religion and a change of confession implied the loss of one's citizenship. The Jewish population was still relatively small due to its precarious legal status and the legal difficulties that prevented their settlement almost anywhere in Switzerland. In 1837, of a total of 25 cantons and half-cantons, 7 Catholic half-cantons and cantons as well as one Protestant canton have no religious minority at all and 4 Catholic and 5 Protestant cantons have a

religious minority totalling between 0.4% et 10% of the population (Bickel 1947, 299). In the remaining 8 cantons the minority represents between l3% and 48%, the occasional large minority being the result of the territorial reorganisation of some cantons at the beginning of the 19th century, among others, Sankt Gallen, Aargau and Thurgau, which sometimes brought with it a change in the cantonal constitution and an article acknowledging religious parity between Catholicism and Protestantism.

At a national level, the Protestants in 1837 represented 59.4% of the total population, the Catholics 40.8% and the Jews, 0.1%. Sixty years later, in 1900, there were 57.8% Protestants, 41.6% Catholics, 0.4% Jews and 0.2% other denominations. According to the 1960 census, the proportions have not changed radically, the Protestants were still the majority (52.7%), the Catholics 45.9%, the Jews 0.4% and the other denominations 1.0%. But what has changed significantly is the geographical distribution of the various religious groups with the presence of strong religious minorities in regions with considerable economic growth which, previously, had been homogeneous in terms of religion. With industrialisation, some regions and cantons underwent major changes, not only Protestant but also Catholic cantons, and this also reflects the time lag which existed in the change from an agrarian society to a more developed society (Table 1). Even after the Second World War, in 1960, there were still some cantons with very small minorities, such as Appenzell Innerrhoden with minorities totalling less than 4% of the population in 1960.

Table 1: Increase of the Religious Minority in some Cantons between 1860 and 1941 (in p. 1000)

	1837	1860	1910	1920	1941
Appenzell Ausserrhoden. P	0 C	45 C	118 C	114 C	130 C
Zurich P	4 C	42 C	218 C	211 C	231 C
Schaffhausen P	10 C	70 C	218 C	214 C	210 C
Vaud P	19 C	50 C	163 C	147 C	167 C
Neuchâtel P	41 C	106 C	139 C	142 C	152 C
Solothurn C	95 P	138 P	333 P	363 P	405 P
Luzern C	44 P	20 P	102 P	120 P	130 P
Zug C	0 P	31 P	91 P	122 P	148 P
Obwalden C	0 P	7 P	17 P	43 P	68 P
Valais C	4 P	8 P	23 P	33 P	36 P

P = Protestants; C = Catholics
Sources: Censuses; Bickel 1947, 299.

In the 1850s and 1860s Swiss statisticians and economists became increasingly aware of the role and influence of religion on the demographic behaviour of the population since there were remarkable differences from one region to another depending on their religious affiliation. Whilst acknowledging the impact of religion on different factors, such as the higher nuptiality rate among Protestants, they also insisted on the part played by social and material factors

to explain the various differences existing between the Protestant and the Catholic populations (Gisi 1868, 101). But the results were not entirely conclusive, neither those produced on nuptiality by Josef Durrer, the author of the official statistics on the Swiss Marriages, Births and Deaths in the period 1871-1890, nor the analyses of the censuses made by the Federal statisticians from the 1860 Swiss census onwards until the 1910 census. The reason was that aggregate data produced at district and cantonal level based on a rough estimate of the number of Protestants and Catholics in a population together with their economic activity, essentially in farming or industry (Schmid 1905, Meli 1952), were not conclusive, especially where the population was mixed in respect of their religious affiliation. In the Interwar period the research by the Swiss Statistical Office improved and became more detailed so that we have some remarkable studies on demographic behaviour according to confession, established above all by Carl Brüschweiler. But, in fact, only a detailed study at micro-level is in a position to indicate to what extent and for how long religion played a significant part in influencing demographic behaviour in all aspects.

2. Challenges to Religious Homogeneity as from the First Half of the 19th Century

Religious homogeneity which existed in most cantons up to the 19th century had a profound impact and was the consequence of a policy existing since the 16th and 17th centuries to systematically prevent the settlement of migrants not affiliated to the State religion. Confessional warfare between Protestant and Catholic Switzerland was never a distant prospect, even in the first half of the 19th century, especially in the German-speaking part of the country. Until 1848, religious freedom, except during the short-lived interval of the Helvetic Republic (1798-1803), was never the norm and marrying a spouse of another religion meant often loss of citizenship and banishment, especially in some Catholic cantons such as Nidwalden, Obwalden and Valais, but also in Protestant cantons such as Bern and Appenzell Ausserrhoden. It is only as from 1848 that all Swiss citizens were allowed to settle temporarily or definitively where they wanted, but nevertheless with some important restrictions entailing the obligation to be able to provide for oneself and one's family and with regard to having a satisfactory "moral" character. But regulations concerning marriages remained within the competence of each canton until this became a matter of national legislation in 1874, but with one important exception: the legislation concerning religious mixed marriages. Measuring the main factors linked to religious affiliation, such as nuptiality, fertility and mortality, is facilitated where the population is relatively homogeneous from the point of view of confession, the affiliation to the dominant religion is hardly in question and the influx of migrants limited. This can be inferred from the comparison of the

demographic behaviour both urban (for instance Protestant Geneva and Catholic Lucerne) and rural (Jussy in canton Geneva and Marbach in canton Lucerne) at the end of the 18th and the beginning of the 19th century: in the Protestant communities there were fewer children per family and a lower infant mortality.

However, over time, these characteristics changed gradually under the impact of exogenous factors. Even in the Catholic cantons, the Catholic Church, as from the 19th century did not enjoy undisputed influence on matters which affected demographic factors, such as, for example, nuptiality. In several cantons, the Catholic Church had to accept a certain number of rules which the secular cantonal or communal authorities imposed in connection with marriage regulations, such as the State regulations fixing the age of majority for concluding a marriage, should this take place without the parents' consent, as well as the harsh restrictions preventing marriage of the poorer members of the population.[1] With regard to forbidden marriages, too, frequent in Catholic as well as in some Protestant regions, and practised for economic and moral reasons depending on the cantons and communes involved, the first serious clash between the Catholic secular authority and the Roman Catholic Church occurred in the 1820s and 1830s. It concerned "Roman marriages", that is to say marriages concluded in Rome in breach of the relevant secular cantonal legislations. More specifically, these legislations did not allow the marriage of spouses considered unable to provide sufficient economic resources so as not to require assistance from their canton or commune of origin. In the 1830s, in letters to various Catholic governments, the Pope insisted on the fact that, as head of the Church, he had the right to marry all Catholics wherever they were. But, taking into consideration the complaint of the Lucerne government, although he had, as a general rule, forbidden his clergy in Rome to marry Swiss citizens without legal papers, he wrote that there were nevertheless cases where "the celebration of the marriage was unavoidable". In fact, these so-called irregular marriages continued to be celebrated in Rome, and in 1852, in its yearly report, the Swiss Government observes that a whole host *("une foule")* of such marriages were still celebrated in Rome, and that even a number of members of the parochial clergy in some Catholic cantons were acting in accordance with the Pope's recommandations. The subsequent result was that several cantonal governments did not hesitate to annul such marriages and to consider their offspring as illegitimate. These cantonal policies had, as a consequence, an important secondary effect: the increase of the number of illegitimate children in the relevant cantons.

[1] But, in Valais, for instance, despite the fact that the matrimonial majority was fixed at 23 years, the local catholic clergy insisted that even at a later age a marriage should not be concluded without consulting the parents.

The second type of opposition with which the authoritarianism of the Roman Catholic Church was confronted in the 19th century was of a politico-institutional nature. Within the Church itself, a more liberal Catholicism was at the root of what Peter Stadler refers to as Catholic dualism, with a conservative Catholicism being more rural and characteristic of regions where the first sector was predominant and a more liberal-radical tendency emerging in regions whose population tended to emancipate itself partially from the strong hold of the Church. Since the authority of the Church and its influence on the political institutions were challenged, retaliatory measures were taken to punish its opponents and these measures were not without their impact on the demography of the population concerned. This was the case already in the 1830s and 1840s in canton Valais in connection with the controversy between the conservative milieu and the Catholic Church on the one side and the supporters of a new political movement *"La Jeune Suisse"*, which wanted more democracy in political and social life, on the other. It also had an impact on specific demographic components. The dispute between the two groups had an effect for marriage and illegitimacy, with the Bishop of Sion ordering the clergy in his bishopric to exclude the members affiliated to this movement from receiving the sacraments and to refuse the celebration of the marriage of members of this association, especially as these members also seem not to have complied with the rules of the Church concerning pre-marital sexual cohabitation and fertility control (Guzzi 2014). Therefore, in this part of Switzerland, there was an increase in irregular marriages, the "mariages-surprises". These were concluded in front of a priest taken by surprise but without publications of the marriage bans, without wedding blessing and witnesses, but which had, nevertheless, to be considered valid, since concluded according to Canon law and the Valais legislation of that time (Bacher 1957, 94-5).

It seems that apart from these irregular marriages, the members of the "Jeune Suisse" also had less conservative views with regard to fertility, there being more bridal pregnancies and more illegitimate births. Such behaviour is all the more striking when one compares it with the extreme values current in the district of Goms in Upper Valais, a most conservative Catholic region, with those in the district of Entremont in the Lower Valais, where "La Jeune Suisse" had its adherents and which rebelled against the influence and the teachings of the Church (Illegitimacy rate in 1900, Goms: 1.5%; Entremont: 5.29%). And this lower ideological commitment to the teaching of the Church in some districts similarly explains the continuing differences in the timing of the decline of marital fertility and its progression in the canton of Valais. D. Chambovey has shown that there was a time-lag of seven decades in the start of the decline between the district of Entremont in 1860 and that of Rarogne in 1930 (Chambovey 1992, 89), with a level of I_g in canton varying up to 100% in 1930.

In fact, the Protestant Church also had its problems with its adherents. There was not just one Protestant Church. Its authority was decentralised and it was

dependent on the different cantonal States until late in the 19th century, hence its name *"Eglise nationale Protestante"* at cantonal level in the French-speaking part of Switzerland and *"Evangelische Landeskirche"* in the German-speaking part, each often having its own specificity. Until 1848, and within certain limits until 1874, each Protestant cantonal government was free to legislate just as it pleased concerning matrimony and this explains the early introduction, essentially for political reasons, of civil marriages in canton Geneva in 1821. In German-speaking Protestant regions we can also observe interference of the cantons and communes with regard to nuptiality. In a similar way to Catholic cantons, the interdictions were intended to prevent the marriage of the poorer or "immoral" population. It is only in 1874 that, with the Federal law on civil marriage coming into force, economic and political obstacles to marriage were removed from an institutional point of view as well as the rules forcing parents of an illegitimate child to marry or on the contrary preventing them from marrying. Thus, the rates of illegitimacy, which in the middle of the 19th century varied from under 1% to 15% according to the canton, mainly reflect the institutional norm prevalent in a canton in matters of marriage and have little to do with religious affiliation. With the suppression of the institutional obstacles to marriages and the introduction of civil marriage in 1874, the rates of illegitimacy decreased considerably both in Protestant and Catholic cantons The situation of the Catholic commune of Aedermannsdorf in canton Solothurn is a case in point. The proportion of children born outside marriage decreased from 12.7 percent in the decade 1861/1870 to 4.4 percent in the decade 1871/1880 (Vogt 2001, 126).

However, State Protestantism in Protestant and officially bi-confessional cantons was also affected by religious dissidence. Characteristically, the free or Evangelical churches with their dissidents opposed the teaching of the official "national" or "State" religion (*Eglise nationale Protestante, Landeskirche*), mostly from the 1830s onwards. They were at the root of important controversies as we can see in several cantons, such as Bern, Basle and St. Gallen. In the French-speaking part, too, a number of dissident groups, various evangelical "free Churches" and "Evangelical Churches", also thrived parallel to the official Protestant State Church. For several decades, there were two Protestant theological faculties or schools in the cantons of Vaud and Geneva as from the middle of the 19th century. In addition to these free "evangelical" Churches there were also a growing number of sects which were frequently in total opposition to the ideology of the State church[2]. The impact of these different religious affiliations (more than ten in the French speaking parts) on fertility have hardly been analysed at all despite the fact that the Evangelical churches seem

[2] In Geneva, at the end of the 19th century, there were heated discussions over the compulsory affiliation of all Protestants to the official "national" protestant Church.

to have had sometimes quite a different attitude towards marriage and marital fertility.

With the increase in population mobility, both the Catholic Church and the Catholic cantonal governments as well as the Protestant cantons were all confronted with the problem of religious mixed (christian) marriages, as from the second third of the 19th century. There were endless controversies with regard to brides and grooms belonging to different cantons, both in relation to the celebration of the marriage itself and to the subsequent citizenship of the couples. In several Catholic cantons, mixed marriages were prohibited, and the authorities refused to provide the necessary documents to enable the marriage to take place. But in the case of a couple nevertheless managing to have their marriage solemnised elsewhere, this meant the loss of citizenship, as we have seen with the "Roman marriages" above. This was the case even in a Protestant canton such as Appenzell Ausserrhoden up to the beginning of the 1840s. Ultimately, the Swiss Parliament decided to adopt a specific law regarding the celebration of mixed marriages in 1850. The Federal Government was given the exclusive competence to rule over the conclusion of a mixed marriage, thus giving the spouses the possibility to appeal to the Federal Court to secure their right to marry despite the opposition of the Catholic Church. In 1862, divorce of couples of different religions also became a federal matter. In addition, the Federal law prescribed that it was up to the father to decide in which religion the children had to be brought up. However the marriage where both spouses belonged to the same religion still remained in the exclusive competence of the relevant cantonal legislation, be it the age of matrimonial majority, the necessity for obtaining the consent of the parents, the degrees of prohibition concerning consanguinity (and affinity) – which all still differed even in neighbouring Protestant cantons such as Geneva and Vaud in the 1860s – and the legal economic requirements. All divergent cantonal conceptions with regard to marriage and divorce, illegal cohabitation, etc. were only removed with the adoption of the Civil Marriage Law in 1874. In practice though, important differences still remained in the application of the law, notably with regard to illegal cohabitation and illegitimacy.

3. Differences in Demographic Behaviour

The differences in demographic behaviour between the two major religious groups were already significant in the 18th century, and particularly in matters of family limitation and infant mortality, although less so in the age at mar-

riage. For Protestant populations, with a few exceptions[3], nuptiality and celibacy with the aim of controlling fertility played a less important part than in Catholic populations, and variation in the mean age at marriage for women as a solution in difficult times seems to have been less pronounced. Age increase played a part only in the first stage of fertility regulation, as can be observed in the case of the town of Geneva, and did not later appear as a regulatory element so that age at marriage began to decrease only slowly in the course of the 19th century, but rapidly at the end of the century.[4] Both Protestant and Catholic populations were characterised by relatively late ages at marriage, the ages of Protestant being on average slightly lower. It must be emphasized, however, that there were two important exceptions to this pattern of relatively late marriage. First, there was an important regional difference which reflected varying cultures concerning marriage in the southern- and Italian-speaking regions. In Catholic Ticino, the mean age at marriage for women, which was less than 25 years at the beginning of the 19th century, corresponded rather to a Southern European marriage pattern. Second, contrary to what has often been stated, protoindustry impacted only slightly on the age at marriage before the second third of the 19th century, but impacted significantly on celibacy.

What brought about the most important changes in the age of marriage both in Catholic and Protestant populations in eastern Switzerland was the large-scale expansion of textile protoindustry and for Protestant populations in western Switzerland the expansion or watch- and clockmaking industry. Further, the introduction and development of factory work as can be observed in canton Glarus in the 1830s and the following decades was effectively the main factor contributing to an important reduction in the age at marriage.

But the most evident contrast reflecting religious influence was the attitude towards family limitation and infant mortality. Birth control is in evidence not only in some Protestant urban populations, especially in Geneva and Zurich as from the 17th century[5], but also to a lesser degree in entirely rural or proto-industrialised regions both in the French-speaking and German-speaking regions in the 18th century. Family strategies for the limitation of their descendancy was widely practiced in the Protestant part of western rural Switzerland as soon as the beginning of the 19th century which can be inferred from the observation of a contemporary Protestant minister that in Montreux (canton de

[3] There were, as we shall see, some regional exceptions where Protestant populations lived in dire poverty.

[4] In the town of Geneva, grooms' mean age at marriage was 30.4 in the years 1800-1815, but still 29.8 in the years 1866-1880, and brides' mean age 27.3 years, respectively 27.1 (Ryczkowska de Montmollin 2013, 71).

[5] It must be stressed, however, that in the Catholic town of Lucerne, H.-R. Burri has shown that there was some birth control at the end of the 18th century. But at that time the population in the rest of the canton remained fiercely under the influence of the prescriptions dictated by the Church.

Vaud), for instance, "the remarkable circumspection of the spouses […] even outweighed that of the circumspect Normans" (d'Ivernois 1837, 9). The differences between Catholics and Protestants were on the increase at the beginning of the 19th century, before migration and the resulting intermixing of populations affiliated to different religions impacted on the demographic behaviour of the hitherto confessionally homogeneous indigenous population and partially reduced the divergences between confessions in the course of the 19th century.

However, it must be stressed that we cannot discern just one single pattern in the Protestant attitude to fertility. Firstly, because in the intensely proto-industrialised regions in eastern Switzerland, couples had a different attitude regarding the number of children that could be of use, since children from the age of six or seven could be beneficial for the income of the family and from the age of ten or eleven could contribute more to the family income than was the cost of their upkeep. Second, the growing number of Protestants affiliated to dissident denominations in the course of the 19th century created different patterns of demographic behaviour, also reflected in their fertility, and obviously sometimes as well as in the higher infant mortality which can be seen especially when fertility remained high. Up to now this heterogeneity has not been the object of systematic research.

With regard to mortality, then, and especially with regard to infant mortality, religion is not always the explanatory factor for the differing levels of mortality. It is essential to keep in mind that there were major differences from one region to another which must be attributed to the environment. Thus, up to the second half of the 19th century, the infant population in the highlands had by far a much a better chance of surviving than that in the lowlands.

3.1 Marriage and Celibacy

In view of the explicitly pronatalist and anti-contraceptive message of both religious and of political authorities up to the First World War, and sometimes even in the Interwar period, what strategies did families develop to reduce the overall population pressure and to adapt to limited resources, and how did the regulation of the size of Catholic families took place? In fact, due to differences in economic activities and sometimes to the resources provided by temporary migration, it was not always the same factors which were preeminent. For some Catholic and agrarian populations, nuptiality, that is to say the level and the timing of marriages and their intensity were major elements for enabling them to reduce the potential number of their children, a necessary option especially when the survival rate of children was high, as was the case in some highland regions up to the end of the 19th century (Table 2).

The few exceptions to the pattern of relatively late marriage were to be found in Catholic – and Protestant – proto-industrial regions where high nuptiality and fertility continued to exist up to the beginning of the 20th century, as

was the case with the two half-cantons of Appenzell. Here, infant mortality could function as a substitute for family limitation. Clearly it was the most significant factor – unintended or perhaps even intended – in impeding the survival of the infant children until adulthood. In rural areas with little industry or where industrialisation began only at the very end of the 19th century, it is quite clear that a late age at marriage contributed to the reduction of the size of the families.

Table 2: Age at Marriage by Sex and Age Group, 1876-1880 (per thousand)

	Males			Females		
Canton	16-19	20-24	25-29	15-19	20-24	25-29
Zurich P	8	240	334	61	386	276
Vaud P	15	279	321	106	394	252
Geneva P	9	216	330	10	362	240
App. Ausserrhoden P	24	343	259	112	444	193
Lucerne C	6	132	252	76	272	238
Uri C	8	125	281	86	320	218
Valais C	22	257	295	112	357	247
App. Innerrhoden. C	10	316	284	158	495	137

Source: Schweizerische Statistik, Lfg. 103.

Compared to Protestant cantons, several Catholic cantons are good examples (Lucerne, Valais and Uri), especially when this was combined with a high level of celibacy. But even in an agrarian and conservative canton, such as Valais up to First World War, there were distinctive differences in the mean age at marriage depending on the district. The more Catholic and the more conservative the district, the higher the mean age at marriage (Table 3). At national level the influence of religious affiliation decreased over time, and in the years 1940-1946, there were hardly any differences in age at marriage. Of the Catholic men who married, 554% married by the age of 30, with Protestants it was 588%, and with Catholic women it was 725%, and with Protestants women 736%.

Table 3: Mean Age at Marriage for Females in Three of the Thirteen Districts of Canton Valais

Period of marriage	Conches	Conthey	Martigny
1860	30.2	25.7	25.6
1900	29.0	26.2	24.6
1930	26.2	24.8	23.8

Source: Chambovey 1992, 117.

Up to the Interwar period, in most Catholic regions, variation in the age at marriage was used as a tool especially to counter a progressive deterioration in the prevalent economic conditions and this was likely to be more marked in

difficult times as E. Wiegandt has pointed out for two generation in the mountain village of Mase in canton Valais (Table 4).

Table 4: Age at Marriage in Mase (Valais)

	Age at Marriage	
Birth cohort	Male	Female
1880-1899	28.5	25.1
1900-1919	30.8	29.2

Source: Wiegandt 1980, 78.

In canton Lucerne, the increase in age at marriage can be noted both in a rural and an urban setting during the first half of the 19th century, since the traditional form of male migration for mercenary service was no longer a safety valve for the excess population.[6] As S. Bucher has stated for the marriage cohort marrying in the 1830-1840 in rural Marbach, the age for the grooms increased to 30 years and for the brides to 28 years compared with 28.1 years, respectively 25.2 years for the cohort married at the end of the 18th century (Bucher 1974, 45-7), and in Lucerne, it increased from 29.3 to 31.8 for males and 27.2 to 28.9 for females (Burri 1975, 104). And for the elite in Uri, where the mercenary service was becoming less and less lucrative, the mean age at marriage for men increased from 24.4 years in 1700-1749 to 29.2 years in 1750-1797 and even to 31 years in 1803-1847 (Kälin 1990, 187). In Amden (canton Sankt Gallen) the level of fertility remained high up to the 20th century. Since there were only limited resources for the establishment of all siblings, the age at first marriage for men increased from 28.9 years in 1880-1900 to 32.5 years in 1950-1970 and the level of celibacy was high (Wegmann 1971). The problem of the scarcity of resources in the Catholic hill regions and the highlands without any development of rural industries was amplified by the fact that these agrarian populations as well as the Protestant populations had a low infant and child mortality rate compared to that of the population in the lowlands. With regard to the age at marriage, a similar strong reaction in the deterioration of economic conditions can also be observed in the Catholic lowlands where proto-industries went through a difficult time around the 1850-1860. Thus, in Wohlen (canton Aargau), the age at marriage for men increased from 29.7 to 31.6 years and for women from 25.5 to 28.8 years from the marriage cohort 1757-1782 to that of 1839-1864 (Dubler and Siegrist 1975, 355).

In Protestant regions there seem to have been no such strong reactions in respect of the age at marriage in difficult times because acquaintance with birth control allowed a degree of flexibility not present in conservative Catholic populations and because Protestants had a greater propensity to emigrate within

[6] In the 1840s, the government of Lucerne complained that its citizens serving as mercenaries in foreign armies were no longer in demand as much as they had been before, and so the young men were without an occupation.

Switzerland or abroad. But apart from the textile regions, mean age at marriage cannot be regarded as low. In Fleurier (canton Neuchâtel) with its clock- and watchmaking industry, the mean age at marriage from the middle of the 18th century to the First World War fluctuated according to the period, being between 26.7 and 29.7 years for grooms and between 24.9 and 26.7 years for brides, but the mean age at marriage was less than 27 years for males only in the period 1830-1843 and for females less than 25 years only in the years 1880-1904 (Sorgesa-Miéville 1992, 177).

The number of children surviving into adulthood was also an important determinant for the age at which men and women were allowed or able to marry. The order in which successive siblings married reveals the substantial increase of the age at marriage depending on marriage rank (Netting 1981, 179), but this does not mean that the first to marry were ~~not~~ necessarily the older siblings. It depended on the economic necessity or the needs of the family or those of the elderly parents (Table 5).

Table 5: Mean Age at Marriage According to Marriage Rank in Törbel (Valais)

	Marriage rank and age at marriage				
	1	2	3	4	5 and more
Male	28.0	30.2	31.7	31.9	32.0
Female	25.8	27.3	29.6	29.6	31.1

Source: Netting 1981, 179.

For the Ticino, however, L. Lorenzetti has shown that birth rank was of major importance for the age of females at marriage, independent of the difference in age at marriage – in the Upper Ticino similar to that in the rest of Switzerland – but was much lower in Southern Ticino and similar to that in Mediterranean Europe. Depending on birth rank, the first-born girls married between 2.4 and 3.9 years earlier than the girls born fourth and later. But with regard to the men, there existed a variety of family strategies depending on the importance for the family of the migratory factor. In Upper Ticino, age at marriage did not vary according to the birth rank, but in the Southern part, the difference amounted to 4.3 years (Lorenzetti 1999).

But the late age at marriage was often not sufficient in itself to reduce the pressure on resources and a high level of celibacy in both sexes was an integral part of the Catholic strategy where supplementary resources resulting from temporary migration or industry were unavailable to facilitate the creation of a new married household. Often both the clergy and the families insisted on the necessity for some siblings to remain single. Jean-Baptiste Jaccoud, a parish priest in the 1870s who later in his life was to become professor of jus naturale at the University of Fribourg, insisted on the pressing necessity for limiting the access to marriage to only a few of families' siblings for economic reasons, since celibacy was the tool to avoid dividing up the family farm. In his view, families should do their utmost to see that

> only two children get married, one boy and one girl. The other children should stay at home as uncles and aunts, unless they took the holy orders or entered a convent. Those who married should do so a little late, between 30 and 40 years in order not to have too many children (Gottrau 1992, 247).

But, of course, this view was not disinterested, since it increased the probability of families committing one or two children to a life in the Church. An observer at the beginning of the 20th century describes family structure and the low nuptiality in the Val d'Anniviers (in Valais) as follows:

> Most often, in the typical family only one brother marries […]. With this kind of arrangement one avoids an undue increase in the size of the family, endless discussions about the division of land, dreaded emigration, the disputes which arise from scarcity, lawsuits, mortgagees and their thousand consequences (L. Courthion, cited by Chambovey 1992, 79).

Marie Métrailler also reports on a practice which seems to have lasted up to the Interwar period in some villages of the Val d'Hérens. There it was the family council, the grandfather or one of the older sons who, without at all consulting those concerned, used to decide who would marry or stay single, who would have to stay with the aged parents to look after them, either one or two children – and who would work for the community in order to improve the lot of those who had married together with that of their children (Métrailler 1980, 19). In the Upper Ticino, in fact, fathers in their wills would often award some usufruct to their daughters only on the condition of their remaining single (Lorenzetti 1999, 394).

The impact of religion on definitive celibacy cannot be denied. In the 1900 Census the comparison between Protestant and Catholic agrarian regions with at the very most 10% of the population belonging to the other confession leaves little doubt as to the higher rate of definitive Catholic celibacy at 45-49 years both in lowland and highland regions (Head-König 1996, 361-370) (Table 6).

An analysis of definitive celibacy should always include both sexes, since migration bringing about sex imbalance can be an important factor creating distortion. There was a male celibacy rate of 195% and a female celibacy rate of 389% in the Catholic district of Mesolcina in canton Grisons in 1900, women being 50% more numerous at age 45-49, or even worse in the Catholic district of Blenio in canton Tessin where there were more than twice as many women as men at age 45-49, which resulted in a celibacy rate for women of 428 per thousand. In fact, here, socio-economic conditions – the necessity of emigration – but not religion were the cause of the very high rate of celibacy and of the sometimes considerable increase in the age at marriage in some villages. In Cevio, for example, age at marriage for females increased by two years and for males by four years between 1800-1824 and 1870-1874 (Lorenzetti 1999). This pattern of female surplus was still very much in evidence in the 1950 census with a surplus of 23% at age 45-49.

Table 6: Definitive Celibacy Rate According to Religion, Sex and Male Employment in Agriculture (1900 Census)

District or canton (a)	Male agricultural workers in 1900 (b)	Male celibacy	Female celibacy
Protestant districts:			
Avenches (Vaud) *	607	115	186
Pays d'Enhaut (Vaud) **	591	142	158
Cossonay (Vaud) "	691	176	132
Laupen (Berne)*	602	164	134
Signau (Berne) *	629	195	207
Ober-Hasle (Berne) *	620	193	163
Dielsdorf (Zurich) *	623	110	37
Bucheggberg Solothurn)*	652	172	103
Hinterrhein (Grisons) **	726	200	263
Catholic districts or cantons:			
Gruyère (Fribourg)	587	205	195
Broye (Fribourg) **	744	238	170
Glâne (Fribourg)*	728	238	218
Herens (Valais) *	913	209	289
Goms (Valais) *	833	225	259
Muri (Aargau) *	674	213	204
Laufenburg (Aargau) **	645	161	133
Hochdorf (Lucerne) *	654	256	214
Sursee (Lucerne) **	675	311	236
Uri *	554	243	249
Obwalden *	638	233	200
Vorderrhein (Grisons)*	731	187	217

(a) In 1900 there are few districts in the lowlands where the two following factors are combined: a nearly homogeneous Protestant population with agrarian activities occupying more than 600 per thousand of the male labour force. This is in stark contrast to the numerous Catholic regions.
(b) Per thousand male workers.
* The minority religion is less than 5%, and ** between 5 and 10%.
Source: Swiss Federal Census 1900.

However, there are some remarkable exceptions in the pattern of religious influence. Firstly, one can observe a high male celibacy in some Protestant districts, whilst at the same time female celibacy is not above average. Thus, in 1900, the male celibacy levels of Aubonne (214 per thousand) and Lavaux (207%) in canton Vaud could be a consequence of the viticulture crisis. Secondly, it seems evident that the levels in Trachselwald (221%), Schwarzenburg (216%) and Seftigen (229%) in canton Berne are the result of deteriorating economic conditions and the increase of poverty, which in the case of Seftigen also affects women with a celibacy rate of 230. Thirdly, the traditional Catholic pattern of celibacy was called into question not so much by the change from agrarian to industrial activities of the men but by the paid proto-industrial work of the women, as was the case in Appenzell Innerrhoden, where we can observe a definitive male celibacy rate of only 126 per thousand and a female rate

of 178. There, male labour in agriculture still amounted to 57.6% of the male workforce in 1900. But the fact that female workers represented 37.8% of the total workforce, and of those only 1.5% worked in agriculture, explains the low rate in celibacy since a female income considerably improved the possibility to create a new establishment.

Celibacy, as we have seen, was an integral part of the strategies employed to limit population pressure in many Catholic cantons with little or no industrialisation, but by far not in all. In agrarian regions, the mode of transfer of the farm – partible or impartible – and the timing of the transfer – inter vivos or at the death of its owner – was a major influence in determining the level of celibacy. Where partible inheritance was the rule, the inheritance of farming plots belonging to uncles and aunts who had remained single combined with those received from the parents were an integral part of the conditions for making a marriage possible, albeit a late one, especially in regions where infant and children mortality was low, such as in Valais. The question of the repercussions of the mode of farm transfer in conservative Catholic regions, where impartible inheritance was the rule, has scarcely been analysed systematically, and neither has its influence to account for the proportion of illegitimate children. It is clear that the combination of religious practice and the transfer of the family farm to only one heir, often only upon the death of the aged owner, combined with an inadequate compensation payment to the siblings, favoured a very high level of celibacy. In four of the five districts of canton Lucerne, be they situated in the lowlands or the highland, the definitive celibacy rate was remarkably high. In 1900, it still varied between 232 and 311 per thousand for males and the female rate was between 214 and 237. In many Catholic regions the decline in celibacy was a very slow process, and in many part of Switzerland it was only in the 1950s, sometimes in the 1960s, that the proportion of definitive celibacy dropped below 20%.

In some conservative Catholic regions, parts of the population seemed to have been very reluctant to accept the Church teachings in sexual matters, be it sexual abstinence outside marriage or unnatural sex acts such as sodomie and onanie which are mentioned in some Church reports of the second half of the 19th century. Catholic Charmey in Gruyère is an atypical case of very high illegitimacy impacted by the succession practices of impartible inheritance together with a high level of celibacy (18% for males and 22% for females at age 45-49 in the 1870 census.). But it is probable that the progressive increase of the illegitimacy rate from the end of the 18th century (1769-1789: 3.4%; 1790-1819: 6.1%; 1820-1849: 9.0%; 1850-1875: 8,5%)[7] can be seen as a repercussion resulting from the deterioration of the economic conditions of this

[7] Seydoux 1969, 35. But still a lower proportion than in the capital of the canton with 7.0% illegitimate children in 1785-1805 and 11.9% in 1806-1830. See also *Geschichte des Kantons Freiburg*, vol. 1, Fribourg, Institut d'histoire moderne et contemporaine, 1981, 495.

community due to increased competition from abroad in cheese production and trade and a certain general reluctance to accept the rules of sexual abstinence. This is very much in contrast to the Protestant population of Vully, in the same canton, where the proportion of illegitimate births never exceeded 3.9% (Andrey 1969). Moreover it seems that in the Catholic community the authority of the Church and of parents did not go unopposed in view of the high proportion of bridal pregnancies: 34.2% for the whole period of 1761-1875. According to a document from the end of the 18th century, it would appear that adult children were not prepared to act in accordance with their parents' demands and made clandestine promises of marriage despite the Bishop's admonitions regarding the duty of obedience to parents and the necessity to obtain their assent to a marriage (Seydoux 1969, 76). Still, in the decade 1881-1890, the illegitimacy rate in some Catholic districts of canton Fribourg remained among the highest in rural Switzerland with a rate of 9.1% in the Broye district and 5.8 % in Gruyère whilst in the Protestant Emmental districts of Signau and Trachselwald, where impartible inheritance was also the rule, it was only 3,8%.

3.2 Infant Mortality

Infant mortality varied according to denomination, with often a significantly lower level in Protestant regions, which of course was correlated with the lower fertility on the one hand, but also with the greater attention paid to the health of infants and their mother. These differences are already evident in the 18th century, but even more so in the 19th century, as can be observed from the data collected for the cantons of Geneva, Vaud, Neuchâtel and Glarus. Family reconstitution of two neighbouring parishes in canton Glarus indicates that the type of religious affiliation was important and that there was a notable difference in terms of infant mortality whatever rank at birth is considered and whatever the size of the families (Table 7). Furthermore, families with 9 children and more were far less likely not to lose any child (12.5) than was the case with Catholic families of the same size (4.5%) (Head-König 2000, 222). It seems clear that the lack of a sanitary and medical infrastructure in the Catholic parish contributed to an increase in mortality, particularly when one considers also the enormous discrepancy in the matter of maternal mortality, which was twice that of the Protestant parish. It is also probable that the children born in higher rank order were not cared for as assiduously as was the case for the first born children. These figures are not at all surprising. Even in the last third of the 19th century this phenomenon still existed in certain Catholic regions having very high fertility rates such as the Hinterland of canton Lucerne.

Table 7: Infant Mortality in Protestant and Catholic Families According to Sibship Size. Parishes of Mollis and Naefels (Canton Glarus). Marriage Cohorts 1761-1850

Age at marriage, before 30 years	Families with ...children		
	1-4	5-8	9 and more
Mollis P	185	214	236
Naefels C	267	272	327

Source: Family reconstitution.

For the Protestant minister of Montreux, there is no doubt that the very low infant mortality as well as general mortality were due to the fact that there the midwives were competent, that breastfeeding lasted up to 18 months, that the population was hardworking, had enough wholesome food and did not suffer from deprivation.

Within each confession, however, there were huge differences due to environmental factors and the degree of care provided to infants from the moment they were born varied notably. Within Protestantism attitude towards young children seems to have varied enormously, too. The contrast is striking when one considers infant mortality. For the town of Geneva, it varied between 90 p.1000 in 1800-1809 and 128 p.1000 in 1840-1849, whilst in the urban families of Sankt Gallen it was as high as 272 p.1000 (marriage cohorts 1826-1830). It is unclear whether this high mortality was the result of differences in breast feeding or if it was perhaps due to differing cultural values. Whilst Alfred Perrenoud has ascribed the care given to children to the combination of economic and cultural values embodied in Calvinism, we know very little as to whether there is a possible link between the very high infant mortality in the town of Sankt Gallen and the influence of pietist milieus which existed there and to which little attention has been paid up to now in relation to demographic behaviour. Such milieus seem to have paid scant attention to the fate of infants and very small children. This could be an explanation since in Southern Württemberg in a Protestant parish strongly associated with pietism infant mortality was still higher than 300% at the end of the 19th century. However, it could not be the result of differences in socio-economic status, since most of the families in Sankt Galleon under consideration here were citizens belonging to the middle and upper class. And in such families as were in possession of the town's citizenship, infant mortality was lower than in the case of those families in possession of only of a settlement permit for the town (302 p.1000 infant mortality) or of those who resided only temporarily in the town (307 p.1000).

In Catholic regions, too, the level of infant mortality could also vary substantially up to the middle of the 19th century. It was often lower in the highland regions than in the lowlands. But huge differences existed also according to the economic activity. In the protoindustrialised eastern part of Switzerland infant mortality was twice as high as in central Switzerland. In Catholic Appenzell Innerrhoden infant mortality was extremely high, due in part to the high

level of fertility. In the parish of Haslen, infant mortality averaged 314 per thousand in the years 1760-1800, 369% in 1825-1834 and in the neighbour parish of Gonten it reached the same horrendous level: 361 per thousand in Gonten in the decade 1785-1794 and even 381% in the years 1825-1834 (Schürmann 1974, 104). It remained the highest in Switzerland up to the years 1867-1871 (399 %), boys being more.at risk (412%) than girls (384%). Infant mortality there was even higher than in regions where a majority of married women were working in textile factories. At the same time, the rates in the Catholic cantons of Lucerne and Uri were practically half of those in Innerrhoden, whilst the marital fertility rate in these two cantons was even higher. Even in the town of Lucerne, infant mortality rates were at least one third lower than in Innerrhoden in the first half of the nineteenth century. But a high infant mortality was also characteristic of the neighbour canton of Protestant Appenzell Ausserroden, but at all times at a slightly lower level: 323% in the decade 1824-1833[8] and 341% in the years 1867-1871. Unfortunately, we have no family reconstitution for these two confessionally different regions which would allow us to consider whether the higher rate of infant mortality in Appenzell Innerrhoden was associated with the birth rank of the newly-born. For Titus Tobler, a practising doctor in Ausserrhoden writing in 1835, the high infant mortality in this Protestant population was the result of several factors: a hard-working mother with too many children who were left unattended and crying for hours on end, the death of an infant or young child being considered as the off-loading of a burden, even the belief of some mystic people that the death of an infant helped to populate heaven with an angel able to intercede for the family. For him the solution would be fewer children and better cared for (Tobler 1835, 62). According to medical reports, in the religious mixed and highly industrialized canton of Sankt Gallen, the high level of infant mortality which existed in some districts (in Tablat, in the decade 1870-1879: 340 %; in Gossau 314 %) was the result of too short a period of breastfeeding, or even the absence of it and also the feeding from the earliest life of unsuitable food, such as a mash of flower. In Tablat (where the Catholics totalled 73% of the population), only 15% of the infant were breastfed, and practically none in the working-class at that time. But this practice was not limited to (proto)-industrial) districts, but also common in the town of Sankt Gallen (with 58% Protestants). There and in its neighbourhood, according to midwives, 52% of the infant were not breastfed in 1880, 60% in 1879 and 64% in 1878, and only a very small proportion parents of those who died in infancy had consulted a doctor. Indeed, when considering the infant mortality in other Swiss regions, one of the main factors determining infant mortality seems to have been the proportion of mothers breastfeeding their children. Thus it was considered that the low infant

[8] Calculations on the basis of the data produced by Tobler 1835, 83.

mortality in canton Valais (in the 1870s, 170% including the stillborn) was due to the fact that mothers breastfed their children, sometimes up to two years.

Between the 1870s and 1920, the decrease of infant mortality was continuous and extremely rapid in Switzerland as in the other European countries. However, it was slower in the Catholic cantons and in 1920 all cantons with more than 10% infant mortality were Catholic cantons. The hygienic and sanitary progress in the 20th century benefitted the industrial and urban cantons, and not the more agrarian and peripheral districts with less good infrastructure. These differences still subsisted in the middle of the twentieth century. Protestant mothers gave birth to 2.82% infants who died in their first year and the Catholic mothers to 3.68%. But Catholic mothers living in towns lost 3.05% of their infants and those living in other communities 3.86%, whilst for Protestant the differences were much less pronounced: 2.77%, respectively 2.84% of their infants.

3.3 Fertility

It is obvious that in matter of family size and legitimate fertility the Protestant and the Catholic Churches did not have the same attitude. The marital fertility indexes calculated by F. van de Walle from 1870 to 1930 on the basis of the district data provided by the Federal Office of statistics give a rough idea of the differences between the two main religions. Simultaneously they reflect the different speed in the adoption of family limitation: the gap increases considerably between 1870 and 1930. The Catholic I_g is 14% higher than the Protestant I_g in 1870, 16% in 1888, but already 39% in 1910 and 74% in 1930 (Van de Walle 1977). But this macro-approach and the fact that the districts were classified according to the dominant religion prevailing among the population, at least 60% in the 1960s, and considered as mixed when less, give only a sketchy view of the changes that occurred at micro-level.

The institutional influence of the two main religions on fertility varied fundamentally and its explains in part the delay in the implementation of family limitation in some regions. It has often been stated and it seems useful to repeat that the Protestant Church attached a great importance to the primacy of the couple with regard to procreation and individual responsibility for the offspring. The Protestant clergy only rarely meddled in the intimate life of couples, all the less so concerning those who married according to the rules of the cantonal legislation and who lived according to the prevailing moral order. The frequently quoted answer of pastor Bridel in Montreux (canton Vaud) to Sir Francis d'Ivernois asking him about the reasons of the very low fertility of his parishoners makes the point;

> To speak frankly, I have many times taken an interest in the death rate of my parishioners on which a vigilant pastor can have a positive influence, but I have never concerned myself with the reasons for their fertility, about which he cannot do anything. You should know, by the way, that we Protestant min-

> isters do not permit ourselves to penetrate into the mysteries of the conjugal sanctuary. The confessional should provide the Catholic parish priests on the other shore [in Savoy] of the lake [Lake Geneva] more means to resolve your questions, but they will probably not lend a hand, and will even be less willing particularly since they are considered, rightly or wrongly, of promoting this illimited reproduction against which you raise your banner [..]. In the 30 years in which I have been in charge of this parish [2850 inhabitants in 1833], I have only seen 3 families with 10 children (d'Ivernois 1837, 10).

For the minister, however, a clear reason was the postponement of marriage, the marriages according to him taking place two or three years later than elsewhere. But, in fact, this argument seems not very convincing. According to his calculations the mean age at marriage was 30 years for men, but it included both bachelors and widowers, and 26.7 years for women including both spinsters and widows. Not only did the Protestant State Church not interfere with a couple's private life, its influence in moral questions – adultery, sexual relations outside marriage, illegal cohabitation – was in decline in the first half of the 19th century with the abolition of the Church tribunals, that is to say the Consistories/matrimonial courts, in nearly all Protestant cantons, the last being abolished in 1874. But here also, the chronological cultural divide was evident, the authority of the Protestant Church in religious and moral matters being called in question much earlier in the French-speaking regions than in the German-speaking parts.

But even the influence of the Catholic Church on demography varied regionally depending on whether the Catholic population lived in a society remaining fiercely Catholic as in the eight cantons which at the end of the 19th century were qualified as the Catholic stronghold ("*katholisches Stammland*") or in a canton considered to belong to the "diaspora cantons" where its influence was mitigated by the presence of other religions.[9] As long as the Catholic societies remained homogeneous from the point of view of the religious affiliation, with only a limited contact with the outside world as was the case in several rural cantons,[10] the Catholic clergy managed to keep his influence on his flock at least in important demographic matters such as sexual abstinence outside marriage, the importance of celibacy and the absence of family limitation.

The influence of the clergy was even more evident where the Catholic Church was allied with a conservative elite and government. Then there was no counter-weight to this influence and new ideas hardly developed. In canton Valais, at the end of the 19th century the government was in complete agreement with the Church in respect of natural fertility, when it congratulated itself that "'voluntary sterility' […] which has disastrous consequences in a neigh-

[9] Altermatt 1995, 30-1. In the diaspora cantons, the catholic population grew by 88% between 1850 and 1888 (Altermatt 1995, 103).

[10] In an urban context, by contrast, the first signs of family limitations seem to have appeared at the end of the 18th century (Burri 1975).

bouring country [France] and which has the effect that all classes that make the nation up refuse to produce numerous families […] has fortunately not yet become the custom here" (Rapport cited by Chambovey 1992, 79). But at that time, this analysis was no more entirely true, as a keen observer of the changes occurring in Valais notices in 1903. "The size of the families has decreased in the last century […], but families have still five or six children on average" (Courthion 1903, 78). About the same time, in canton Fribourg public advocacy of birth control and family limitation was not allowed, the argument being the necessity to safeguarding public morality. In reality each debate and public discussion of these matters were considered as an attack against the influence of the clergy and the dominant political regime.

3.3.1 Differences in Level of Marital Fertility Depending on Religious Affiliation

The average family size according to religious affiliation leaves little doubt about the contrasting situations existing in Switzerland already in the first decades of the 19th century, but also within Protestantism as we shall see later. The most striking differences can be observed with the data collected by A. Zurfluh concerning the Catholic and very rural Urseren Valley in canton Uri which still had the highest fertility rate in Switzerland in the middle of the 20th century with those collected by R. Schumacher for the mostly Protestant town of Geneva, since the 17th century the forerunner with the town of Zurich in matters of fertility control (Table 8). Taking into account all ages at marriage, the average family size was 6.7 children in Urseren and 2.3 children in Geneva, with the average age at the last birth being 40.7 years in Urseren (Zurfluh 1988, 432) and 34.3 years in Geneva (Schumacher 2002, 68).

Table 8: Average Family Size according to the Age at Marriage in Geneva and Urseren

Locality and period of marriage	Age at marriage and number of children		
	15-19	20-24	25-29
Urseren 1801-1830	8,7	7,5	6,3
Geneva 1800-1846	3,1	3,4	2,8

Sources: For Urseren, Zurfluh 1988, 440; for Geneva, Schumacher 2002, 66.

In fact, the gap between these two extremes decreased slightly up to 1900, for two reasons. On the one hand, the population of Uri was beginning to adopt family limitation, whilst on the other, marital fertility hardly declined further in Geneva due to the immigration of numerous Catholic couples between 1815-1880 (Schumacher 2010, 380). But the gap between these two areas increased again to reach a maximum again in 1920 when marital fertility again declined markedly in Geneva with Catholic couples adjusting their fertility to that of the Protestant couples. And the gap declined again up to the middle of the 20th

century, but still being higher than in 1900. Of course, the situations of these two areas were totally dissimilar from the point of view of altitude, environment and economy. But differences in marital fertility between Protestant and Catholic couples could also be very marked, although not necessarily to such extent in adjacent communities or neighbouring areas with similar economic activities. The Catholic and Protestant populations of Glarus are a case in point. So are two valleys in canton Grisons where, at the beginning of the 20th century, in the Catholic Valley of Lugnez, families with 12 and more children were not a rare occurrence, whilst in the neighbouring Protestant valley of Safien as noted by a contemporary "the French two-children system" has established itself (Wettstein 1910, 86). Clearly, religion mattered. At national level, the analysis of marital fertility according to the profession of the husband and the religion of the mother in the years 1947-1955 support the view that whatever the profession of the husband, Catholic marital is always higher, the divergences being highest among the farmers and winegrowers.

3.3.2 Strategies and Factors Tending to Slow the Fertility Transition

a) The Power of the Church and its Socio-Cultural Environment

It is evident that in the past churchgoers in rural Catholic societies were governed by and virtually saturated with religious precepts. The Church not only controlled church attendance, the observation of the numerous religious holidays, the obligation to participate in religious processions (Joris 1973, 94) and to receive Holy Communion at Easter,[11] but also instructed adults not only on their moral shortcomings and sexual disorders, but also in respect of evening gatherings and evening schools.[12] Each Sunday the Catholic priest did not fail to praise families with numerous offspring who were promised eternal happiness in the hereafter, being unable, according to Marie Métrailler, to offer them a decent life in this world. For the message of the Church in the Interwar period was not only that conjugal sexual intercourse if it was not accomplished with a view to reproduction was then a sin, but that the offspring also had to be numerous (Chambovey 1992, 212). The correlation between the number of children and poverty is indisputable as a witness from canton Fribourg recalls: "Year in, year out, mum gave birth to a child. We were becoming poorer and poorer, but we were all growing nevertheless. In 1937, we were thirteen round the table. There was beginning not to be enough food".[13] The same opinion on

[11] In rural catholic Fribourg, in the years 1855 to 1879, more than 98% of the population received Holy Communion at Easter, see Python 1981, 388.

[12] According to the bishop of Sion, in 1898 and 1900 "vigilant parents should never allow their children to go out in the evening" and "evening schools are generally schools for bad morals" (1896). Cf. Abbet 1912.

[13] Bosson 2001, quoting Alfred Uldry born 1927.

the part of the clergy seems to have prevailed right up to the beginning of the second half of the 20th century. A former Sunday school pupil in Willisau-Land (canton Lucerne) remembers that in the 1950s the local priest regularly insisted that a family without ten or more children was not a real family.

The Church also influenced the population significantly by means of a dense web of different types of religious associations and an education which conveyed its ideology. It is obvious, as can be observed for the village of Ausserberg in canton Valais, that due to numerous such religious associations which continued to exist until the middle of the 20th century that any behaviour which was not in accordance with that extolled by the Church was scarcely possible. There were such a number of associations and confraternities that all inhabitants of the village of whatever age, from infancy to old age, were involved in an activity supervised in one way or another by the Church (Muehlbauer 1979). The increase in the number of religious associations at a local level in the course of the 19th century was remarkable, and gained momentum until the Second World War, as can be observed in an industrialised and religiously mixed canton such as Sankt Gallen. There, the number of associations increased from twelve with 535 members in 1870 (totalling 4.2% of the Catholic population) to 762 associations with 99'670 members (59.2% of the Catholic population) in 1930.[14] Such all-encompassing religious settings existed in all Catholic "strongholds". They were all the more influential since simultaneously there also existed the widespread practices of economic clientelism and patronage by which the local Church was in the position to influence the mentality and behaviour of the individual (Guzzi 2014, 64). It is evident that a prerequisite for this control of the population was that a sufficient number of young men should choose a religious vocation. It can be observed, though, that in the course of the nineteenth century fewer men had a religious vocation, notably in districts where a fraction of the population was influenced by new, more "radical" political ideas, as in the Entremont district in Valais where the number of young men ordained to the priesthood decreased by 37% in the second half of the 19th century compared to the first half of that century (Joris 1973, 86). Families with a more urban background also encouraged fewer sons to enter the Church, so that some parish priests came to be responsible for an increased number of parishioners, who were thus less easy to control.[15]

However, it would be a mistake to think that only the Catholic population was supervised by its religious authorities. In Protestant regions, too, there were institutional structures for controlling the population. But there was an important cultural divide between the German-speaking and the French-speaking regions regarding religious tolerance and practice which developed

[14] Hundert Jahre Diözese Sankt Gallen, Uznach, 253-98.

[15] According to Python (1981, 394) in canton Fribourg, there was a parish priest for 235 parishoners in 1785 and one for 435 in 1900.

much earlier in the western part of Switzerland, although after numerous controversies. Civil marriage was the rule in Geneva as from 1821, in Neuchâtel as from 1853 and in Vaud it was tolerated as from 1835. This is in very stark contrast to the situation in eastern part of Switzerland. In the canton of Sankt Gallen, the Protestant population did not possess free choice in religious matters until 1863. Attendance of the Church assemblies was compulsory and the Church minister had to visit the Protestant households "as often as was necessary". Members of evangelical dissident groups were not allowed to leave the official (State) church despite their repeated requests and their children were forcibly baptised (Schärli 2012, 282-6). Young people of Protestant faith were closely monitored and from the age of ten up to their Confirmation, which took place at the age of 16 at the earliest, their weekly attendance for Protestant catechism instruction was compulsory, and this even increased to at least twice a week in the months preceding confirmation. Only the Church Council had the right to dispense them from attendance (Finsler 1856, 284). It was not possible to escape the ruling of the State Church since in canton Sankt Gallen a baptism and a confirmation certificates were absolute prerequisites for being be able to contract a marriage as long as civil marriages had not been introduced.

b) The Maintenance of Ignorance

The maintenance of ignorance in sexual matters was the most powerful tool the Church made use of to continue to influence the demographic behaviour of the population. It was the result of a combination of several strategies which in some Catholic "strongholds" persisted at least until the Interwar period: limiting contact with the outside world as far as possible and in particular supervising temporary female emigration, limiting access to sources of information and permitting access only to authorised literature, influencing the school and the education system, and the taboo on the open discussion of sexual matters.

One of the strategies then was to limit contact to the outside world, both physically and intellectually. Firstly, we can observe the strategy of vehement opposition to the establishment of industries, as for example was the case in the 1870s in a poor district of canton Lucerne.[16] There was also opposition to the emigration of young people, especially young females to work in Protestant regions where they could not be supervised. In Valais, the Church and the families managed to put an end to the migration of young girls who went to work in the Protestant watch- and clock-industry of the Jura just after the Second World War. Acquiring knowledge outside the sphere of the Church was similarly forbidden. As the Bishop of Sion (Valais) reminded his flock in several pastoral letters at the end of the 19th century (in 1898 and 1900): "You are

[16] At that time more than 15% of the population had to receive assistance due to lack of work.

not allowed, without sinning, to read Protestant publications and newspapers" and in 1898: "It is a rigorous obligation to believe, without any exception, everything that the Church teaches" (Abbet 1912).

The involvement of the Church in the education system was the means to see that teaching was in conformity with its own objectives.[17] In some cantons its influence was manifold up to the Second World War, especially when teachers were members of religious congregations and the Church supervised the contents of what was taught. In addition, the Catholic Church hardly ever opposed a situation in which in some Catholic cantons the school year was no longer than six months and that only for three hours a day as late as the middle of the 20th century, nor did it offer any strong opposition when parents were negligent when it came to the regular attendance of their children at school. Furthermore, the continuation of the influence of the Church into the middle of the 20th century is a factor which accounts for the continuing higher marital fertility in some Catholic regions. According to farmers' wives interviewed in Innerrhoden in the second half of the 20th century, the Catholic clergy opposed with all its "might" – and with success – the diffusion of any information on contraceptive practices. Birth control seems to have been a taboo subject and silence was maintained on sexual issues even in private discussion, since it was considered that knowledge of sexual matters was potentially dangerous (Hersche 2013, 341).

c) Migration or Spatial Proximity and the Impact on Fertility

Migration always modifies the demographic behaviour of a population and this occurs in two ways. On the one hand, the immigrants with their specific knowledge in matters of fertility were sometimes the reason for the decline in fertility in the agrarian society which received them. On the other hand, immigrants to towns and industrial regions coming from regions practising little or no birth control needed a period of adjustment before they adopted the family limitation characteristic of the local population. The first situation can be observed in communities which in the middle of the 19th century were still very Catholic, such as in canton Fribourg, the second case in the town of Geneva and in industrialised Protestant Glarus.

Two characteristic Catholic communities which ultimately modify their demographic behaviour may serve as an example. In the case of Delley-Portalan, it was due to the proximity of a Protestant population and seasonal migration, whilst in Broc there was a mixing of populations due to the setting up of a chocolate factory which necessitated the recruitment of local and foreign la-

[17] In diaspora cantons, confessional schools were considered to be a bulwark against Protestant influence. In Basle, in 1884, the democratic decision by a vote to close the Catholic school was met with strong Catholic opposition, but to no avail.

bour. In the latter case, it was the recruitment of a number of female workers from Italy and discussion in the workplace, which helped to disseminate knowledge concerning family limitation.[18] The decline in the average number of children per complete family was significant in both localities as from the end of the 19th century (Table 9) and was accompanied by a notable lowering in the average age at the last birth (Praz 2005, 507-12). There were also changes in a number of the cultural practices which had been characteristic of a Catholic culture: the closed periods for marriages were taken into account less and less and bridal pregnancies increased.

Table 9: The Decline or Fertility in two Parishes of Canton Fribourg

Parish	1860-1878	1879-1898	1898-1914	1914-1930
Broc	6.07	6.22	4.85	3.66
Delley-Portalban	7.06	8.20	5.00	4.31

Source: Praz 2005, 507-512.

Immigration into the town of Geneva, both Protestant and Catholic, had an impact on the level of fertility, all the more so as a result of a large influx of immigrants. As A. Perrenoud observed, immigrants, even Protestant immigrants, differed in their attitudes and the size of their families was larger than those of the native population. Immigrant women who married in the decade 1801-1810 had 3.1 children on average but the Genevese women had only 2.7 children (Perrenoud 1990, 101). What changed in the course of the 19th century was that the Catholic migrants to Geneva became more and more numerous, progressively changing the confessional structure of the population with 40% Catholics already in 1860 and 44% in 1880. The continuous decline in fertility characteristic of the town since the 18th century stopped at the beginning of the 19th century and with the arrival of these new immigrants there was a slight but significant increase in the level of marital fertility in the years 1815 to 1880 during which it remained at approximately 40% of the Hutterite fertility. Fertility declined markedly only after the 1880s, with Catholic couples adjusting their fertility in part to that of the Protestant couples, so that in 1930 the Catholic fertility in Geneva was even lower than that of several other Protestant cantons. The development in industrialised German-speaking Protestant cantons was somewhat similar to that of Geneva. In the 1860s, canton Glarus had the second lowest marital fertility of Switzerland. But in the following decades, the decline became less marked with the gradual increase of Catholic immigrants from one sixth of the population in the 1860s to nearly one third in 1930.

[18] Italian females immigrants, who were better informed about the facts of life and had knowledge concerning fertility control, seem to have shared their knowledge and discussed it within the workplace. In interviews, local women acknowledged their total ignorance in these matters (Praz 2005, 376-7).

The fertility decline in the canton began to lag behind that of other Protestant cantons.

d) Atypical Fertility Behaviour among Protestants

As mentioned above, Swiss Protestantism was not homogeneous: Calvinism dominated in the west, Zwinglianism in the centre and the east whilst in the region of Basle there was also a certain Lutheran influence. In the 18th and 19th century there was the emergence of evangelical dissenters (pietism, revival, etc.) with their own more or less rigorous discipline in respect of family matters. Two family reconstitutions, both in an urban context, reveal the extreme variety of demographic behaviour within Protestantism itself in the 19th century.

The first concerns St. Gallen, the second Geneva. In fact, the comparison of two large Swiss towns (large by Swiss standards) in the first half of the 19th century, St. Gallen, a Zwinglian town, the sixth town by population in 1837, and Geneva, a Calvinist town and the biggest town in Switzerland, produces some unexpected results with regard to both marital fertility and mortality. The contrast is all the more striking because of the enormous difference in the average number of offspring. The complete families in St. Gallen have 6.74 children on average and those in Geneva, 2.32 children. In Geneva, birth control was then already a well-established practice. It was the result of both birth spacing, that is to say longer intervals between births, and stopping, the cutting short of the end of the reproductive years. The differences between Geneva and St. Gallen existed irrespective of the age at which a marriage was concluded (Table 10).

Table 10: Number of Children According to Age at Marriage and Period of Marriage in Complete Families in the Protestant Towns of Geneva and Sankt Gallen

Town	Marriage Period	Age at marriage				
		15-19	20-14	25-29	30-34	35 and more
Geneva	1800-1846	3.1	3.4	2.8	1.9	0.5
St. Gallen	1826-1830*	8.7	7.3	7.2	4.6	3.4

* Including all marriages having a child born in 1826-1830.
Sources: For Geneva, Schumacher 2002, 66; for Sankt Gallen, my family reconstitution.

The Sankt Gallen values are also interesting because they show that there was practically no birth control and that these urban families had an even higher fertility than that existing at that time in other Protestant proto-industrialised communities in the German-speaking part of the country (in Ausserrhoden and Glarus) and even more than in the French-speaking communities in canton Neuchâtel. Was this high marital fertility not only the result of different cultural values – in relation with infant mortality I have mentioned above the hypoth-

esis of a possible pietist influence – or was it also the result of economic planning, since an expanding economy would offer sufficient opportunities for the many offspring? It is an open question.

Looking at the second reconstitution it becomes clear that within Protestantism the type of religious affiliation was often the result of social differentiation. Although it is still work in progress, my family reconstitution of families belonging to the *Société Evangélique* of Geneva created in 1831 leaves little doubt as to some striking differences within mainstream Protestant behaviour: mostly a low mean age at marriage for females, whilst the mean age of male spouses was much higher, a family size which is definitively larger than what was usual in Geneva, a very high nuptiality and, as far as one can trust the death registers of Geneva, (which one probable can), an extremely low infant and children mortality (Table 11).

Table 11: Number of Children, Age at Marriage and at Last Birth of Couples Belonging to the Société Evangélique de Genève (According to the Period of Marriage)

	1810-1850	1851-1880	1810-1880
Bridegroom older than bride (in years)	8.1	5.8	7.2
Mean age at marriage (brides)	23.9	20.9	22.7
Number of children	4.5	5.4	4.9
Age at last birth	33.6	35.7	34.5

Source: my family reconstruction.

There can be no doubt at all that whatever the belief of this group, in the matter of family size their specific behaviour must in addition be due to the fact that they belonged to the middle and upper classes of society, worked in expanding economic sectors where a large number of children reaching adulthood could be established in all types of spheres of political and social life and could thus contribute to the extension of their network both within Switzerland and internationally. This is a plausible explanation for the limited family control of this group and for the fact that the average family size increased further in the second half of the 19th century.

4. The Increase in Mixed Marriages, Secularisation and the Impact on Fertility

"State" religion remained the dominant form in all cantons in the 19th century, but its position was often significantly eroded not only by the growth of alternative denominations critical of its practices, but also by the gradual and palpable process of secularisation which significantly impacted the level of fertility.

Despite the enormous increase of the number of religious associations of all types for single and married people in order to provide support for the mi-

grants, it frequently proved difficult to oversee the morals and religious practices of the new arrivals. They often had a tendency to break with the strict supervision that was characteristic of their place of origin, be they Catholics from Savoy or Italy who migrated to Geneva, or Southern Germans who migrated in large numbers to the Swiss-German Protestant towns as from the middle of the 19th century, or indeed Catholic Swiss migrating to Protestants towns and industrial regions. Spatial proximity to other religions in everyday life contributed to an increase in religious mixed marriages in urban and industrialised regions, notably due an increased residential proximity and to the organisation of labour. Crafts and workshops implied the presence of apprentices, workers and servants living in the household of their master and, later, work in factories saw the mixing of migrants with different religious affiliations.[19] The scarcity of accommodation from the middle of the 19th century which lasted until the First World War and beyond increased the process of religious interaction, and single young adults often had to accept whatever subletting was offered independently of the religious affiliation of their landlady. Furthermore, in most Swiss towns there was also often too small a matrimonial market for immigrant religious minorities and the service sector with its numerous young single women contributed to a significant sex ratio imbalance that increased the probability for marriages outside of an individual's own religious affiliation.

The fact that within the main religions there were different tendencies and that the population became more and more mixed from the point of view of religion makes the analysis of the impact of religious culture and beliefs on demography far more difficult in the 20th century. Added to this, there is another factor which complicates research: Is it possible to rely entirely on the answers given by the population at the time of a census? Is it not so that, up to the Interwar period at least, most people were reluctant to declare officially that they did not adhere any longer to the beliefs of the religion they had been born into? At all events, despite this, there were signs of increasing secularisation both in a Catholic and Protestant environment. For Basle, we have some rare insight data concerning the Catholics living in the town which allows us to observe that private behaviour and individual practice did not correspond to the officially declared affiliation. Consequently, in 1920, 40% of the Catholic taxpayers in Basle (out of 21'242) no longer paid any tax church. In fact, one of the catholic priests doing his house visitations in 1919 observed that one third of his parishioners practised their religion regularly, one third did not practising their religion at all or was indifferent and one third had nothing whatsoever to do with the Church anymore. Further, in the predominantly

[19] In 1843 Geneva, Calvinists and Catholics shared "the same roof and table" in 28.2% of the households, that is 18,5% of the Protestant and 9,7% of the Catholic households (Oris, Ritschard, and Perroux 2010, 47).

working-class districts of Basle, the participation at the celebration of Easter was even less frequent and amounted to only to a quarter of the Catholic population (Mattioli and Stirnimann 1992, 285, 287).

For Protestantism, the first signs of a certain estrangement from the State Church on the part of the working class also became evident with the economic and socio-cultural transformations of society which took place from the middle of the 19th century: services of worship during the week and evening prayers were no longer in demand and had to be progressively discontinued on account of lack of worshipers. Baptism rites also changed and the time-lag between birth and baptism increased. The 1876 data for canton Zurich (including all religious denominations) leave little doubt concerning the decline of religious practice: of the new born children 86% were baptised, 98% of the people who had died had a religious funeral, but only 50% of the couples who married had their marriage solemnised in a church. In Geneva, the process of secularisation was also well under way and in 1879 it was noted that "of the population of about 29'000 Protestants in Geneva, there is no more than one man out of ten who attends Church on Sunday, and the younger men are even rarer, they reappear at some celebrations and sometimes when they are betrothed […]".

The partial estrangement from the church was accompanied by a continuous increase in religious mixed marriages, especially in urban and industrialised areas such as Basle with 22.7% mixed marriages in 1900. This was in stark contrast to rural areas with little immigration or where the influence of Church discipline remained strong: there were only 1.0% of mixed couples in the Protestant district of Emmental, 1.0% in Catholic Obwalden and 1.5% in Catholic Valais. What is especially noticeable is the precocity and scale of the phenomenon in Basle with 138 p.1000 mixed couples in 1860, 181 in 1870, 215 in 1880, 227 in 1900, 212 in 1920 and 215 in 1941. Thus, there was a continuous increase in this type of couples up to the First World War with a slight drop after World War I when there was a process of re-emigration. A detailed analysis of the 1870 Basle census shows the huge impact the origin of the spouses had on the proportion of mixed couples living in the town. Only 9.7% of the marriages of the town's citizens were mixed, but 19.8% in the case of other Swiss citizens, and even 26.4% for the foreigners. Living in towns obviously changed the priorities of some sections of the population in the matter of marriage, as was the case of female servants, which I have analysed in another context (Head-König 1999). Getting married was the priority rather than maintaining one's religious affiliation. For them, mixed marriages were even more frequent than for the other habitants of Basle. Of the female servants who married in Basle in 1909 and 1910 – 21% of all brides were female servants then – 34% married a man who had a different religion.

The continuous increase at national level of the proportion of mixed marriages from 3.2% in 1870 to 13% in 1960, and the underlying general secularisation have not been without consequences for the general level of fertility and

for specific regions. The numerous mixed marriages, especially in an urban environment, had a twofold effect as the 1930 census reveals. First: among the urban population, the proportion of childless mixed couples came to be much higher than the proportion of those married with a spouse of the same religious affiliation. In the six main towns, this proportion was already between 18.7% and 28.6%. Second: the urban mixed couples with children also had on average fewer children than couples adhering to the same religion (Candolfi 1950, 109). Even more astonishing are the differences in the proportion of couples either without children or with large families depending on their religion in the different cantons in the first half of the 20th century as is exemplified in the 1941 census (Brüschweiler 1949, 327). There can be little doubt as to the continuing co-existence of completely different demographic regimes in Switzerland which were still influenced by the religious beliefs of the population with their very different perceptions of the value of children (Table 12)[20].

Table 12: Percentage of Marriages without Children and with 6 and more Children after 20 years of Marriage (1941 Census)

Canton	Married women after 20 years of marriage	
	Without children	With 6 children and more
Zurich mostly P	19.2	4.3
Neuchâtel mostly P	19.5	4.7
Vaud mostly P	17.1	6.6
Schaffhausen mostly P	13.3	7.7
Basel-Land mostly P	12.2	8.7
Appenzell Ausserrhoden mostly P	5.9	10.8
....		
Fribourg mostly C	11.3	35.8
Valais mostly C	9.6	33.6
Uri mostly C	9.7	38.3
Nidwalden mostly C	8.4	37.8
Appenzell Innerrhoden mostly C	9.4	37.2
Obwalden mostly C	7.7	36.6
Switzerland	15.2	12.0

Source: Brüschweiler 1949, 327.

It could be said without exaggeration that Protestants and Catholics lived in completely different worlds. The 1941 census data are telling examples of the time-lag existing in the adoption of the fertility transition in the conservative Catholic cantons. It also appears that with the considerable migrant flux in

[20] Geneva and Basle had the highest proportion of women having no children after 20 years of marriage, 28.1%, respectively 20.7% and the lowest proportion with 6 and more children, 2.1 and 2.6%. But they were specific cases owing to their predominantly urban character.

Switzerland after First World War those Catholic immigrants to Protestant cantons coming from a more conservative background very rapidly adopted a very different demographic behaviour.

5. Conclusion

In conclusion, we have now seen in some detail that initially in the early 19th century the main religious groups in Switzerland, the Catholics and the Protestants, still lived mostly in political entities which were very much independent of one another. They had their own legislations and practices that allowed them to limit the in-migration of those people who were considerable as unsuitable, either from a religious point of view or economically. Due to industrialisation, urbanisation and migration the religious mixing of population increased mostly in the lowlands of Switzerland. Adjusting the laws to a new reality, particularly in the question of marriage, progressively became a necessity, despite the hostile position of a majority of Catholic cantons. Despite the fact that hitherto accepted rules were more and more in dispute for an increasing part of the Catholic population, the divergences in the demographic behaviour of Protestants and Catholics were still striking in the first half of the 20th century, especially with regard to family size.

It emerges that two significant different demographic regimes co-existed in Switzerland with their specificities regarding celibacy and fertility, and up to a point also regarding mortality at least until the Interwar period. Raising the age at marriage and propagating celibacy remained the means approved by the Catholic Church to control fertility. This was accepted by a large fraction of the conservative agrarian population, albeit with some resistance originating from the propagation of new ideas in certain quarters which also brought about a different demographic behaviour. Within both religious groups, there continued to be significant differences stemming from their differing economic development and also from very different cultural values. This explains perhaps that family limitation on a large scale took place earlier in Protestant western Switzerland, than in the Protestant German-speaking part of the country. It is however to the spatial intermixing of populations affiliated to different religions at the end of the 19th century and the beginning of the 20th century that major changes occurring in demographic behaviour must be ascribed. The subsequent increase in mixed marriages, especially in an urban context, affected not only fertility, but also contributed to a process of secularisation linked to better education, economic change and greater mobility.

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