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6.1 EUROPEAN POPULATION COMMITTEE (CDPO)

The demographic characteristics of national minorities in certain European States
The demographic characteristics of linguistic and religious groups in Switzerland

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1. The historico-political context

1.1 The origins of quadrilingual Switzerland

Switzerland today, like Belgium and Luxembourg, is situated on the dividing line between the Germanic and Romance languages. Before the Roman era its population consisted mainly of Rhaetians and various Celtic groups, including the Helvetii. Between the first century B.C. and the fourth century A.D. it was extensively romanised by the Romans themselves and other Latin-speaking groups, but during the fifth and sixth centuries the territory between the Rhine and the Rhône became a frontier zone as a result of the decline of the Roman empire and the incursions of Germanic tribes. From the north successive waves of Burgundians and Alemanni invaded this territory inhabited by Gallo-Romans. In the west, the Burgundians merged with the native population and this, in turn, led to the formation of a recognisable boundary between the Alemannic and Romance languages during the eighth and ninth centuries in the valleys of the Aar and the Sarine, running along the foot of the Jura mountains and through the Swiss plateau and the pre-Alps. The Alps themselves were rapidly populated by Germanic immigrants. The German language made inroads in the east, along the Rhine as far as Chur. During the 13th century, German-speaking Valaisans left the Upper Valais and settled in the high valleys of the southern Alps and Graubünden and by the end of the 14th century the German language predominated everywhere in the central Alps. (For more information on the historical developments readers are referred to Federal Department of the Interior, 1989). Only in limited parts of the Alps, such as Graubünden, Voralberg, the Tyrol and Friuli, were the old Rhaeto-Romanic languages (Romansch, Ladin, Friulian) able to hold out in isolated valleys. Nowadays the Romansch-speaking area is cut off from the other Rhaeto-Romanic pockets situated in Friuli and the Dolomites; Romansch is now spoken only in Switzerland. (The evolution of the Romansch-speaking area is dealt with by Furer, 1996).

During the 16th century, new standard languages began to spread throughout the Germanic and Romance language areas. In French-speaking Switzerland, in particular, French rapidly displaced the local dialects, although in German Switzerland (and, also, for example, in Alsace) Alemannic dialects, the everyday languages of the local people, have survived to this day. Italian-speaking Switzerland also held on to its local dialects for a long time, notwithstanding the fairly early introduction of the Lombard dialect, with standard Italian only really coming into its own in recent decades. Rhaeto-Romanic speakers also developed various dialects and associated written forms and it was only in 1982 that Rumantsch grischun, a compromise among the different varieties of Romansch, was created so that the Federal authorities would recognise Romansch as an official regional language.

The boundary separating the Romance and Germanic languages does not coincide with any of the country's major topographic features (see Maps 1 and 2). It cuts across the Jura mountain chain, the Mittelland plateau, the Pre-Alps and the Alps proper and reaches into the Upper Valais and Graubünden. Only the northern limit of the Italian-speaking area is clearly defined by natural boundaries including the St. Gotthard pass and the southern chain of the Alps. Although the boundaries between the languages are still not absolutely fixed, they have shown very little movement since the 19th century (for a description of the situation around 1990 see Lüdi/Werlen (eds.), 1997). This relative stability is mainly a legacy of the history and political structure of the Swiss Confederation.

1.2 The languages and religions of the Old Confederation

The Swiss Confederation was established at the end of the 13th century as a result of a pact entered into by the three Alpine cantons of Uri, Schwyz and Unterwalden to resist the domination of the Hapsburgs. Other territories, and also cities with "immediate" status (such as Zurich, Bern and Basel), which wished to preserve their independence vis-à-vis the Hapsburgs and Burgundy, soon joined it. The alliance of these small states enabled them to win a number of important military victories and thus avoid being taken over by the great European monarchs, principalities and empires. At the beginning of the 16th century the Confederation consisted of 13 canton-cities and rural cantons (Uri, Schwyz, Unterwalden, Obwalden, Glarus, Zug, Bern, Lucerne, Basel, Fribourg, Solothurn, Schaffhausen and Appenzell).

During the 16th century the 13 cantons succeeded in widening their area of influence by absorbing the Romance-language territories of Ticino and Vaud and by means of alliances with neighbours like Geneva, Sion, Neuchâtel, Graubünden and St. Gall and also with cities in Alsace and in southern Germany. Up to the time of the French Revolution, the Old Confederation was a grouping of sovereign cantons, common bailiwicks and allies joined together through a series of complex linkages of varying strength. All the sovereign cantons were German-speaking, with the exception of Fribourg, which was bilingual. Romance languages were spoken in only some allied territories or common bailiwicks and in this respect the Republic of Geneva was of particular importance because of its close relations with France.

In the 16th century the Reformation led to new divisions between the cantons and territories of Switzerland. Right up to the second half of the 19th century there were violent conflicts between Catholics and Protestants, which on occasions degenerated into civil war. The Alemannic cantons of Zurich, Bern, Basel and Schaffhausen were the first to adopt the new religion, under the influence of Ulrich Zwingli, a reformer close to Luther. Geneva, an allied republic, became the world centre of Calvinism under the sway of John Calvin and with the assistance of the Confederates succeeded in protecting itself from attack by the Savoyards and France. During the Counter-Reformation and after the revocation of the Edict of Nantes, Geneva and other reformed cantons in Switzerland became important places of refuge for Huguenots from France and elsewhere.

When the Treaties of Westphalia in 1648 formally recognised the Old Confederation's total independence from the Holy Roman Empire, Switzerland, Germany and the Netherlands constituted the three bi-denominational states of Europe. In matters concerning religion, the Confederation adopted the principle of "cujus regio - ejus religio". The application of this principle led to a division of the country based on religious affiliation which, unlike the language-based division, coincided with the existing political frontiers of the Catholic cantons, the reformed cantons and their common bailiwicks. The religious map of Switzerland (see Maps 3 and 4) even today shows fairly uniform blocks of religious affiliation that were generated by the wars of religion during that period (Bovay, 1997). The main areas of mixed religious affiliation are found in what were the then common bailiwicks of Aargau and Thurgau, and in areas around St. Gall. To these may be added their allies of Graubünden and Geneva, which had a different denominational history.

1.3 From a Confederation of States to a Federal State

In 1798 French troops occupied Switzerland. The French were welcomed as liberators, especially in the common bailiwicks of the sovereign cantons (in the canton of Vaud and in Aargau and Ticino). Switzerland, with its many internal disputes, gave birth to the short-lived Helvetic Republic, ruled by a central government which bequeathed a new administrative structure. The political upheavals and the principle of political equality created the first awareness of multilingual statehood. The legislation of the Helvetic Republic was accordingly in German, French and Italian, and the languages were recognised as being of equal status.

However, this centralising model, imposed from outside, was not viable. In 1803 Napoleon restored the 13 old cantons, to which were added six new cantons including Graubünden, Vaud and Ticino, where were accorded equality of status with the former. Switzerland then for the first time acquired the official title of the Swiss Confederation. In 1815, the boundaries of Switzerland were fixed at the Congress of Vienna and have remained unchanged since then. The admission of Valais, Geneva and Neuchâtel to the Confederation strengthened the country's French-speaking component.

The return to a decentralised Confederation of States made it easier for the Protestant cantons to oppose the Restoration led by Catholic conservatives. After 1830 there were popular uprisings in several cantons, leading to the adoption of liberal cantonal constitutions which provided for freedom of worship. In 1845 the Catholic cantons of central Switzerland, namely Fribourg and Valais, formed a separate league - the Sonderbund - to oppose the revolutionary movement of Protestants and liberals. As more and more cantons joined the liberal camp, the Diet (the cantons' executive body) demanded the dissolution of the Sonderbund. After a brief civil war between the Protestant militia and Catholic troops the latter were forced to surrender. Their defeat paved the way for the radical revolution of 1848 and the creation of a federal state, a modern concept greatly in advance of its time. The last major change in the composition of the Confederation occurred in 1978, with recognition of the independence of the French-speaking and mainly Catholic canton of Jura (the Jura area had been assigned to the canton of Bern in 1815). Since then the Swiss Confederation has comprised 20 cantons and 6 semi-cantons.

1.4 Linguistic and religious groups in Switzerland

Since 1848 the Swiss Confederation has been the only democratic state in western Europe officially to be both multilingual and multid denominational. The foundation and retention of a democratic federal structure bear witness to the political will of the Swiss people to constitute a single *nation* in spite of their various *linguistic and religious* strands. The internal cohesion of that nation-state is guaranteed by its federalist structure and by the allocation of powers between the Confederation and the cantons, an allocation which respects differences and which leaves important areas of authority to the cantons with regard to both religion and language.

Under the Federal Constitution of 1848, citizens professing a Christian religion enjoyed freedom of worship and freedom of establishment throughout the Confederation. It was only when the Constitution was completely revised in 1874, the text of which is still essentially in force, that these rights were extended and conferred on all citizens, in particular at that time, on the Jews. However, the cantons continued to have responsibility for the detailed regulation of relations between church and state and this has led over the years to widely differing systems, ranging from total separation to a state church with, as an intermediate position, the recognition of some churches as national churches, which are then recorded certain unrestricted rights, like the collection of parish taxes. The 1874 Constitution did, however, introduce certain fundamental principles of a secular nature; examples are the separation of civil marriage from religious marriage and the teaching of religion from the rest of education.

Freedom of worship and secular principles, combined with population movement and social mobility, have been instrumental in weakening religious allegiances and, in particular, in eroding the single denomination pattern in individual cantons, which was characteristic of the old Confederation. This trend runs counter to that observed in the linguistic sphere, since freedom of language has never taken precedence over the principle of territoriality (see sections 3 and 4 below). The principle of territoriality and freedom of language have been considered fundamental and complementary principles of language policy since the Federal Court ruled in 1965 that they are part of unwritten constitutional law.

The linguistic identity of Switzerland is based on the essential idea that the national languages are spoken primarily in areas where they are traditional. Under the principle of territoriality, cantons can restrict the languages that people can use in tier dealings with the cantonal authorities or the courts or in education. It is a principle that is aimed at preserving the traditional extent of the national languages. To this end, cantons may adopt a monolingual or multilingual policy at cantonal or local authority level. The principle of territoriality is crucial in regions with French- or Italian-speaking majorities in keeping the 'linguistic peace', and is an effective tool for encouraging newcomers - whether German-speaking citizens of the Confederation or foreigners who different language - to integrate (cf. Windisch, 1992).

Freedom of language means that people should not be prevented from using the language or languages of their choice. At the federal level, if the language is a national language it is recognised as having equal status with the other national languages in dealings with the federal authorities. The same applies to the official languages at cantonal and local authority level for purposes of cantonal legislation. The national languages also enjoy special protection at cantonal level when they are minority languages in the canton in question.

The 1848 Constitution already accorded the three principle languages of the country (German, French and Italian) the status of national languages and treated them as equal. In 1938, when irredentist movements were active elsewhere in Europe, it was decided, in order to emphasise Switzerland's multilingual character, to include Romansch in the Constitution as a fourth national language, though it was not at that time a standardised regional language, with German, French and Italian remaining the only official languages of the Confederation. This situation has subsequently changed, however, since the article in the Federal Constitution on languages (Art. 116) as revised in 1996, also now accords Romansch the status of an official language. This means that Romansch can be used by the Romansch population in their dealings with the Confederation. Four cantons located across linguistic boundaries are officially multilingual: Graubünden is trilingual (Romansch, Italian, German), the canton of Bern has a German-speaking majority and a French-speaking minority, while the cantons of Fribourg and Valais have French-speaking majorities and a German-speaking minorities. Finally, the towns of Fribourg and Biel/Bienne (in the canton of Bern) are officially bilingual.

The new 1996 constitutional article on languages is the first which points the way towards an active Confederation policy capable of defusing the latent tensions among the linguistic communities (for more on this topic the reader is referred to the Federal Department of the Interior, 1989, and the message from the Federal Council, 1991). Under the new article, the Confederation and the cantons are required to promote mutual comprehension and exchanges among them. It is also expressly stated that the Confederation, and not just Graubünden and Ticino, must take steps to safeguard and promote Romansch and Italian. These provisions comply with the undertakings Switzerland entered into in 1997 when ratifying the European Charter for Regional or Minority Languages. The ratification instrument described Italian and Romansch as traditional minority languages which, as such, required special protection. Romansch is the only language which is not spoken throughout a canton; nor has it an economically strong capital, hinterland or neighbour. Italian in Switzerland is also marginalised in comparison with German or French and therefore finds itself in a secondary position as an official language of the Confederation.

Religious antagonism is now much reduced but it is a matter of primary importance for national cohesion and for the position which Switzerland occupies in Europe that the balance between the linguistic communities (both culturally and economically) should be safeguarded or restored. Various authors (for instance, Altermatt, 1996, 1997) think that an ethnicisation of the linguistic communities is taking place as, for example, in Belgium, while others want the Confederation and the cantons to introduce a new policy on languages which would break with the past by discarding the myth of homogeneous linguistic communities. These latter would like to encourage multilingualism, both individually and collectively, as the ideal solution for the future (for example Lüdi/Werlen 1997, Windisch, 1992 and the debate which the Swiss Political Science Review launched in 1996 and 1997 on the prospects for language policy in Switzerland).

Up to now, much less attention has been paid to the demography than to legal and political questions concerning the linguistic and religious groups of Switzerland and the aim of this overview is to rectify, at least in part, this imbalance. For our study of the demographic evolution of the various groups, the historical background is examined using information from the population census since 1850 together with cantonal data, while the more recent past is analysed with the aid of conventional demographic methods based on period statistics and individual data. The analysis sheds new light on the situation regarding the linguistic and religious groups of the country at the end of the 20th century.

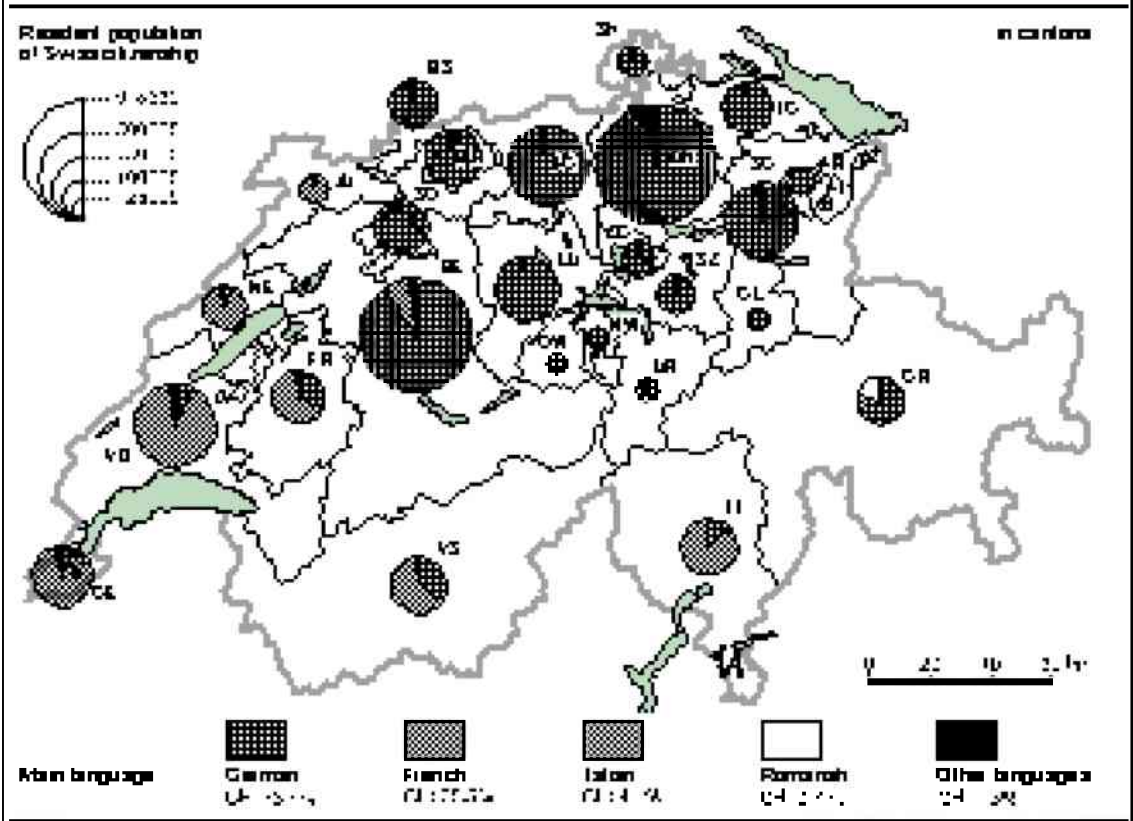
2. Sources and definitions

2.1 The populations studied

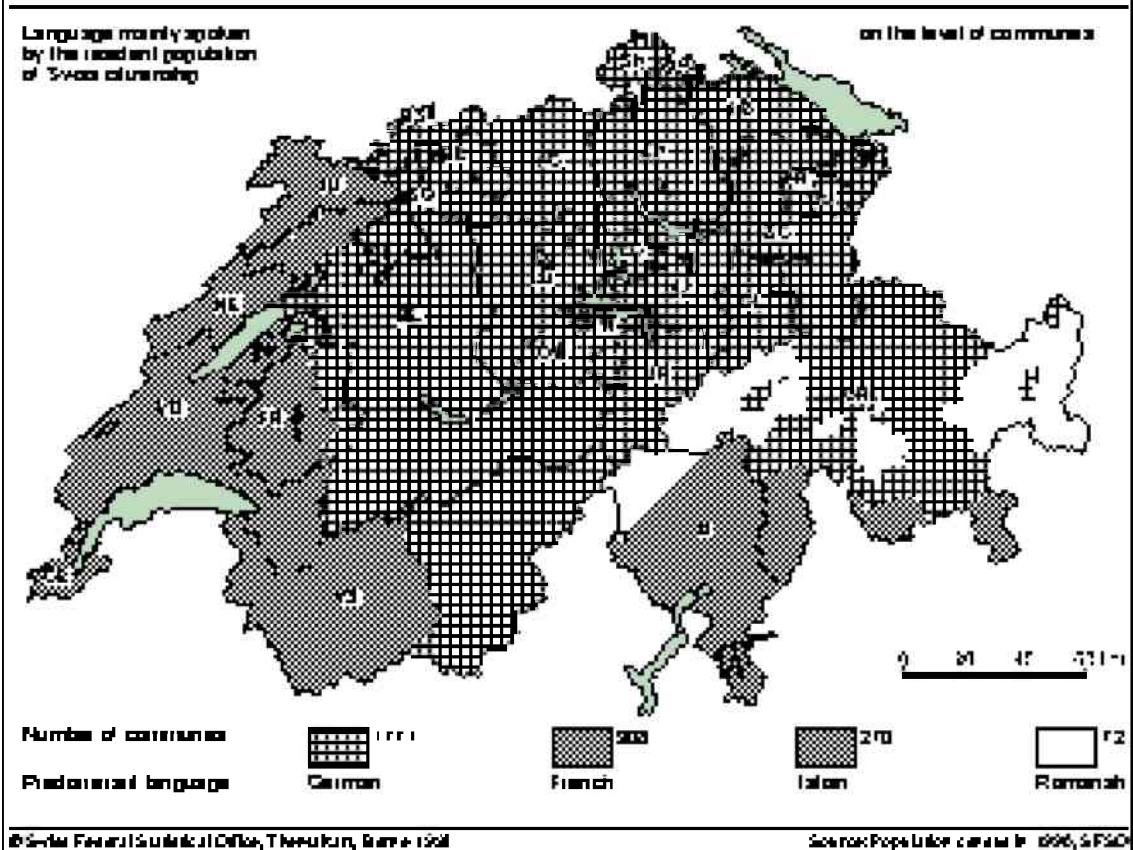
This study concentrates on the population of Swiss citizenship. For our purposes, ‘nationality’ refers exclusively to citizenship and has no ethnic connotations. The analysis of the historical trends (section 3) deals with three religious groups (Catholic, Protestant and other religions) and four linguistic groups (speakers of German, French, Italian and Romansch) on the basis of census returns. Cantons have been classified according to their predominant characteristics and divided into seven groups namely: Catholic German-speaking cantons (Luzern, Uri, Schwyz, Obwalden, Nidwalden, Zug and Appenzell Inner-Rhodes), Protestant German-speaking cantons (Zürich, Bern, Glarus, Basel-Urban, Basel-Rural, Schaffhausen, Appenzell Outer-Rhodes and Thurgau), German-speaking cantons without a clear religious majority (St. Gall, Graubünden, Aargau and Solothurn), Catholic French-speaking cantons (Fribourg and Valais), Protestant French-speaking cantons (Vaud and Neuchâtel), the French-speaking canton of Geneva without a clear religious majority and the Italian-speaking canton of Ticino.

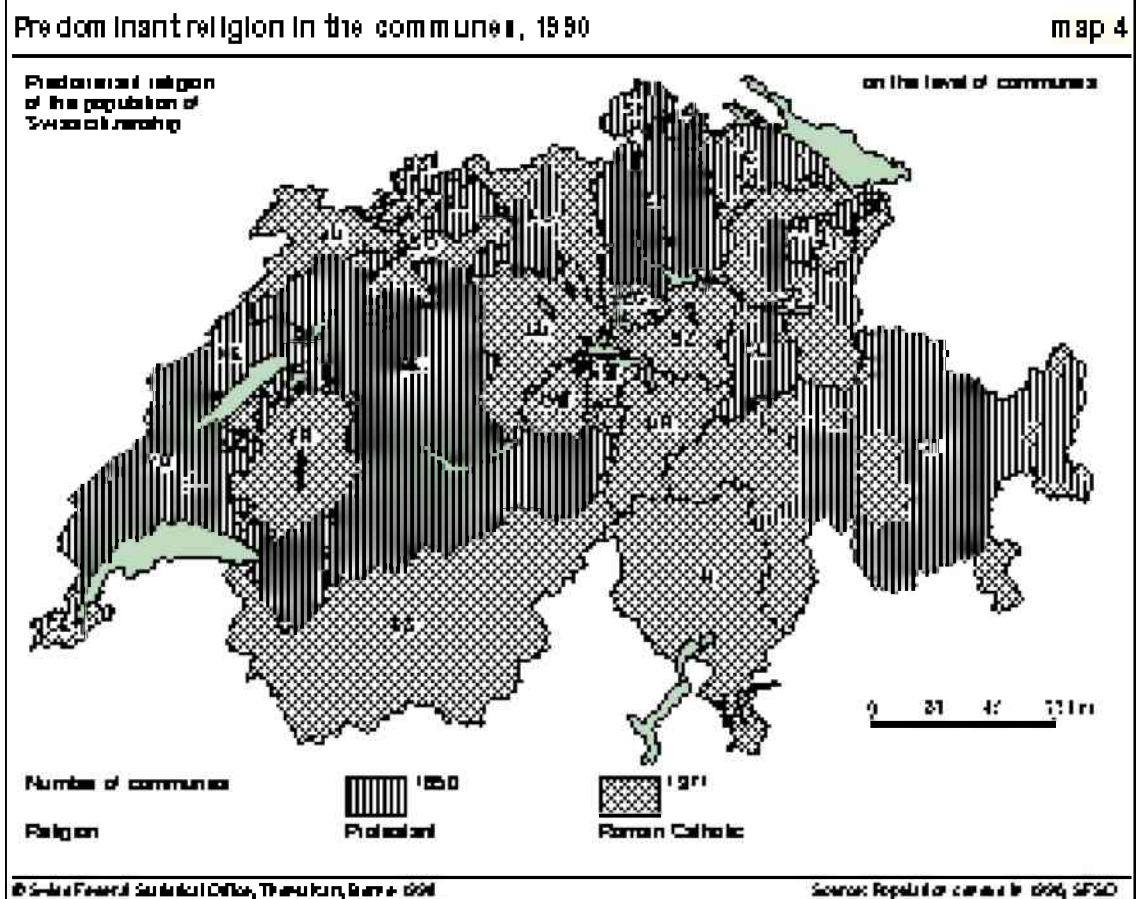
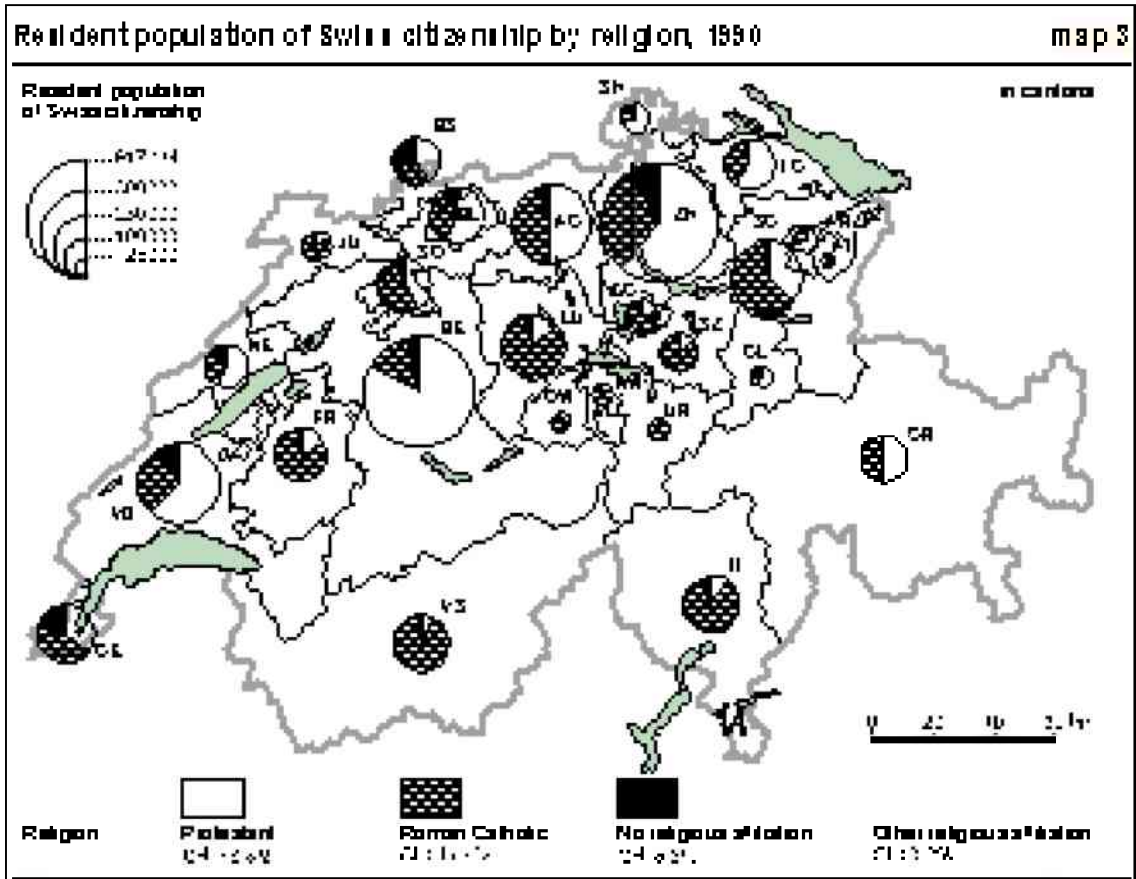
The analysis of recent demographic trends and the projections (sections 4 and 5) deal with the religious groups, the four linguistic regions and five religio-linguistic groups (Catholic German-speaking, Protestant German-speaking, Catholic French-speaking, Protestant French-speaking, Catholic Italian-speaking). The demographic development of the different groups is described for the period between 1970 and 1996. The projections refer to the period 1997 to 2020.

Resident population of Swiss citizenship by main language, 1990 map 1

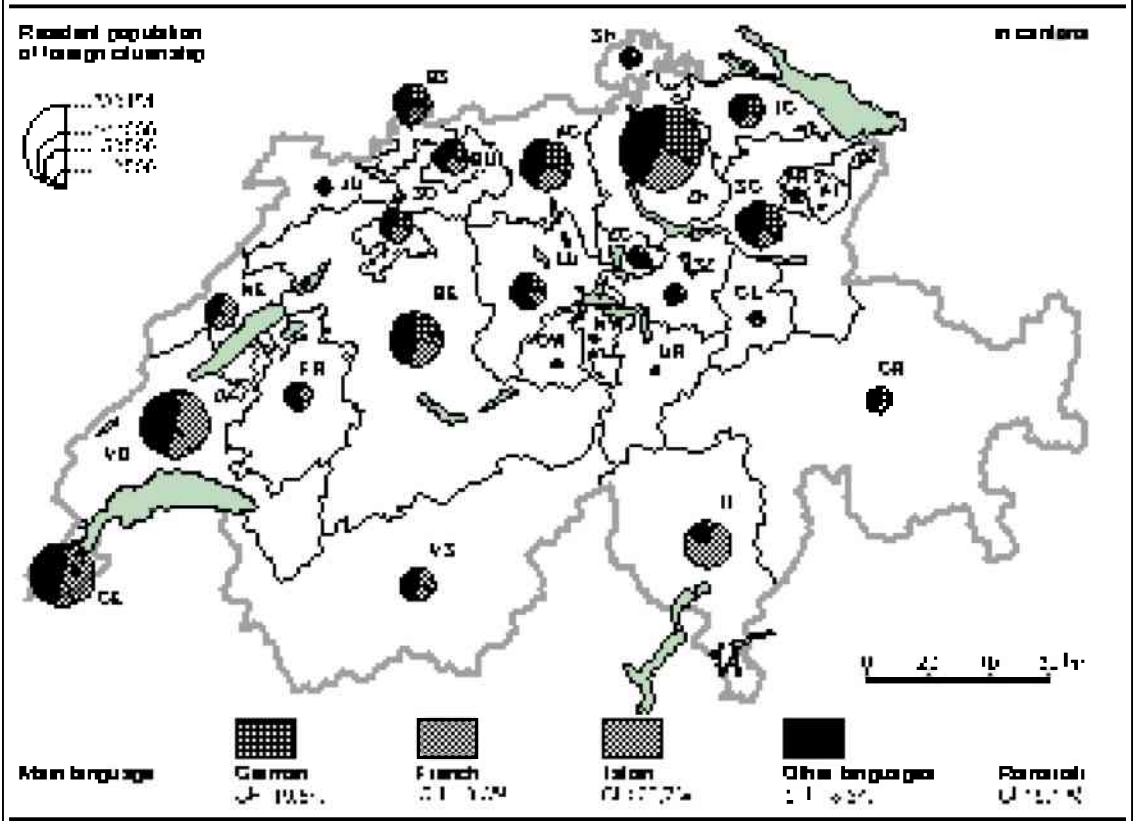


Predominant language in the communes, 1990 map 2



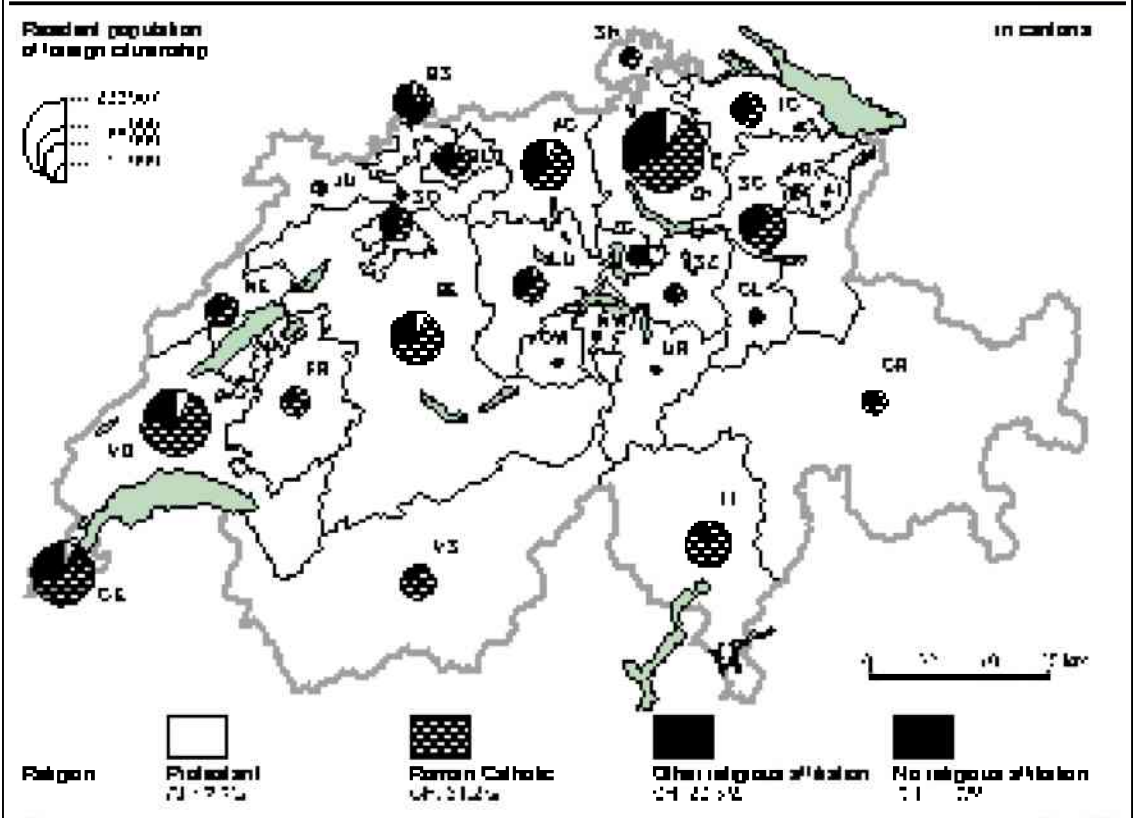


Resident population of foreign citizenship by main language, 1990 map 5



© Swiss Federal Statistical Office, Thun, Bern 1998 Source: Population census in 1990, SFSO

Resident population of foreign citizenship by religion, 1990 map 6



© Swiss Federal Statistical Office, Thun, Bern 1998 Source: Population census in 1990, SFSO

2.2 Demographic statistics

Population censuses

Although the first census of the entire population of Switzerland was organised under the Helvetic Republic in 1798-99 (cf. Malaguerra/Suarez, 1997, on the close link between the structure of the state and official statistics), the first data available for religion and language date from the first census conducted under the aegis of the federal state. The census, which has been carried out regularly every 10 years since 1850, provides a picture of the Swiss population and its religious composition. The 1850 census recorded the numbers belonging to each of the two principal denominations of the country, Protestant (including sects) and Catholic, as well as the number of Jews; while since 1860 there has been coverage of other religions, in particular Islam, and since 1960 those enumerated as having no religious affiliation have also been given (Ritzmann-Blickensdorfer (ed.), 1986; Bovay, 1997).

Regarding information on principal languages, this was not sought in the first census but has been available since 1860 (1880 in the case of individual data). Since 1880, censuses have recorded the principal language of respondents, defined as the language in which they think and which they know best. In 1990 the scope of the census was extended to cover languages spoken at work and at home (including dialects). Since 1910, i.e. after the first large influx of foreign workers, the census has inquired into nationality (in the sense of citizenship). Additionally, the census has also provided information on the population of each local authority and canton since 1850.

Although information on religion and principal language therefore go back to the middle of the 19th century, detailed data on the socio-demographic characteristics of the various groups have only been available since 1970. Since then individual computerised census data have been accessible making it possible to present a detailed picture of the different religious and linguistic groups.

Family and fertility surveys

The Swiss Family and Fertility survey, carried out in 1994-95 (Swiss Federal Statistical Office (SOFS), 1998), provides information on the religion of respondents and their parents, and thus on inter-generational changes in religious and linguistic affiliation.

Administrative records

Detailed public records of births and deaths have been kept since 1871. However, such records are available up to 1968 only in tabulated form in the public records office and have only been available in computerised form (individual registrations) since 1969. Some uses of the data are therefore only possible from 1969 onwards. This applies to age at time of event, for example age of the mother at the time of birth, for calculation of the fertility rate, and age of the deceased person for calculation of the death rate.

The public records provide no information on language. Otherwise, up to 1987 events entered in the public records included information on religion (generally the religion of the mother). When no religion was stated, registrars entered the majority religion of the district. Thus, before 1987, every birth, death and marriage entry included religious affiliation. The automatic recording in some entries of the majority religion in the district means that there are discrepancies with the figures for religion in the census returns and adjustments are necessary, mainly to take account of persons enumerating themselves in the census returns as having no religious affiliation (cf. section 2.3).

Migration and naturalisation statistics

Until 1980 figures for migration were estimates based on census information and it is only since 1981 that an independent source of information has been available at regional level. This is incorporated in the population estimate statistics (ESPOP statistics), which include an annual survey of migration. There are, however, no figures on migration broken down by religion or language.

Information on changes in nationality has been available in the form of individual registrations since 1981. The data come from the Central Aliens Register, which collates the individual registrations from the cantons, the local authorities and the Federal Police Authority. Here again there is no information on religion or principal language. Given the importance of naturalisations in the development of the population of Swiss nationality we have thought it worth estimating religion according to the nationality of the naturalised person (see below).

Annual (period) statistics

Annual estimates of the numbers in the different groups and communities studied, broken down by sex and age, were required for the measurement of the extent of demographic change in recent years. These have been derived within the limits of the information available and after adjustment for differences of definition (cf. section 2.3). The figures assume that, for a particular group studied, the end-of-year population is equal to the population at the start of the year plus births, immigration and naturalisation and minus deaths and emigration.

The procedure employed, apart from a few methodological details, corresponds to that used in Switzerland for the estimation of historical series (Wanner, 1997). The figures are consistent with the corresponding totals for Switzerland, which do not differentiate between religio-linguistic groups (ESPOP statistics). The estimates relate to the three religious groups, the four linguistic regions and the five religio-linguistic groups as defined above and cover the period between the 1970 and 1990 censuses. The corresponding values for 1991 to 1996 have also been estimated. This set of figures constitutes the basis for the calculation of the demographic indicators used in the study.

Projections for 1997-2020

Two demographic projections are presented for the period up to the year 2020. They assume that the total population of Swiss nationality will be that forecast in the OFS "Tendance" demographic projection (1996a) but that, within that population, the distribution of communities and groups will vary according to their specific demographic characteristics. The first projection - 'continuity of trends' - is based on assumptions *in line with the characteristics observed over the past 25 years.*

- The Catholic fertility rate is slightly higher than that of Protestants, and higher in the German-speaking region (Catholics 1.6 children per woman, Protestants 1.4 children) than in either the French-speaking region (Catholics 1.5, Protestants 1.3) or the Italian-speaking region (Catholics 1.2). The fertility rate in the Romansch region is assumed to be 1.8 children per woman.
- Both the German- and French-speaking regions are assumed to display negative net migration of -4 200 and -800 respectively, whereas a zero balance is assumed in the other two regions.
- The figures for the period 1981 to 1996 show variations according to religious and regional criteria in the numbers acquiring Swiss nationality. For every 100 persons naturalised 60 were Catholic, 5 Protestant and 35 belonged to other religions.
- Life expectancy is assumed to undergo moderate increase in all groups.

The second projection - 'standardisation of behaviour patterns' - assumes a uniform demographic pattern across all four groups in respect of population change but with births, deaths, migrations and naturalisations in each case broken down by age at the time of the event. This corresponds with the most recent demographic projections for Switzerland (Scénario tendance, OFS, 1996a), i.e.:

- a fertility rate gradually rising to 1.56 children per woman;
- a slight increase in life expectancy at birth;
- negative net migration equal to -5 000 for all Swiss nationals, distributed in proportion to the size of individual groups;
- acquisition of Swiss nationality also distributed in proportion to the size of each group.

This projection assumes that the only *factor bearing on the demographic future of the different groups is variability in population structure.*

2.3 A particular problem: persons stating "no religion"

In Switzerland the statement of religion does not carry any political implication that might possibly affect its reliability as occurred in the censuses of Northern Ireland in 1971 and 1981 (Compton, 1997). It seems likely that most of those enumerated as being of no religion or giving no response to the question have experienced a religious upbringing but, on reaching adulthood, no longer feel the need to refer to it. The reasons why this might be so are, of course, outside the scope of this report. The proportion of Swiss nationals enumerated as being of no religion has risen from 65 310 in 1970 (1.3% of census returns) to 234 952 in 1980 (4.3%) and 437 766 in 1990 (7.8%). This trend is evident especially among young adults in the French-speaking region and increasingly in the German-speaking region too.

In order to ensure consistency between the numerator (the number of events registered in the public records) and the denominator (the census) the categories "no religion" and "non-response" were allocated to one or other of the two denominational groups studied, Catholic and Protestant, or to the group "other religions". As a first step, a linear univariate regression was applied to test the relationship between "no religion" and the breakdown of stated religions in the local authority level. The relationship expressed in terms of R^2 was poor and indicates that the non-response rate cannot be explained, as it can in other countries, in terms of the religious composition of a particular local authority. Accordingly, since there was no significant statistical association between the majority religion and the proportion of the local population stating they have no religion, the latter have been allocated pro rata according to the numerical strength of the different religious groups.

3. Demographic change from 1850 to 1990

3.1 Size of religious and linguistic groups

Table 1 traces the changes in the size of religious and linguistic groups between 1850 and 1990, while maps 5 and 6 show the current (1990) distribution of foreign immigrants by language and religion.

Table 1: Switzerland. Population by stated religion and nationality, 1850-1990

	Catholic		Protestant		Other religious groups		No religion ¹⁾	
	Number	%	Number	%	Number	%	Number	%
<i>Total population</i>								
1850	971 809	40.6	1417 786	59.3	3 145	0.1		
1860	1021 821	40.7	1478 591	58.9	10 082	0.4		
1870	1084 369	40.6	1566 347	58.7	18 431	0.7		
1880	1160 782	40.8	1667 109	58.6	18 211	0.6		
1888	1184 164	40.6	1716 212	58.8	17 378	0.6		
1900	1379 664	41.6	1916 157	57.8	19 622	0.6		
1910	1593 538	42.5	2107 814	56.2	51 941	1.4		
1920	1585 311	40.9	2230 597	57.5	64 412	1.7		
1930	1666 350	41.0	2330 303	57.3	69 747	1.7		
1940	1754 204	41.1	2457 242	57.6	54 257	1.3		
1950	1987 614	42.2	2655 375	56.3	72 003	1.5		
1960	2492 968	45.9	2861 522	52.7	34 331	0.6	40 240	0.7
1970	3116 922	49.7	2991 694	47.7	65 301	1.0	95 866	1.5
1980	3046 640	47.9	2822 266	44.3	186 406	2.9	310 648	4.9
1990	3184 069	46.3	2747 821	40.0	328 971	4.8	612 826	8.9
<i>Population of Swiss nationality</i>								
1900	1115 376	38.0	1806 957	61.6	9 686	0.3		
1910	1210 114	37.8	1965 351	61.4	25 817	0.8		
1920	1321 442	38.0	2116 231	60.8	40 262	1.2		
1930	1433 261	38.6	2226 942	60.0	50 675	1.4		
1941	1605 862	39.7	2396 342	59.3	39 945	1.0		
1950	1783 558	40.3	2591 439	58.5	54 549	1.2		
1960	2027 217	41.8	2767 108	57.1	17 798	0.4	32 199	0.7
1970	2251 311	43.4	2854 727	55.0	18 359	0.4	65 310	1.3
1980	2380 345	43.9	2730 111	50.4	75 578	1.4	234 952	4.3
1990	2445 969	43.5	2660 329	47.3	84 191	1.5	437 766	7.8
<i>Population of foreign nationality</i>								
1900	264 288	68.9	109 200	28.5	9 936	2.6		
1910	383 424	69.5	142 463	25.8	26 124	4.7		
1920	263 869	65.6	114 366	28.4	24 150	6.0		
1930	233 089	65.6	103 361	29.1	19 072	5.4		
1941	148 342	66.4	60 900	27.2	14 312	6.4		
1950	204 056	71.5	63 936	22.4	17 454	6.1		
1960	465 751	80.8	94 414	16.4	16 533	2.9	8 041	1.4
1970	865 611	80.1	136 967	12.7	46 942	4.3	30 556	2.8
1980	666 295	70.5	92 155	9.8	110 828	11.7	75 696	8.0
1990	738 100	59.3	87 492	7.0	244 780	19.7	175 060	14.1

Source: SFSO, Population censuses 1) Non response included

The distinction between Swiss and foreign nationals underscores the important influence of international migration on the religious and linguistic composition of the total population and, as a result of naturalisation, also on the population of Swiss nationals.

The tables show that the two majority denominations in the total population have followed very different temporal trends. Since 1850, whereas the number of Catholics has increased by

a factor of 3.3 that of Protestants has grown by a factor of only 1.9. Taking all nationalities together for the population as a whole, the 1970 census marked a watershed in the sense that the number of Catholics overtook the Protestant population for the first time as a result of immigration from Catholic countries.

Table 2: Switzerland. Population by language and nationality, 1880-1990

	German		French		Italian		Romanche		Other	
	Number	%	Number	%	Number	%	Number	%	Number	%
<i>Total Population</i>										
1880	2030 792	71.4	608 007	21.4	161 923	5.7	38 705	1.4	6 675	0.2
1888	2082 855	71.4	634 855	21.8	155 130	5.3	38 357	1.3	6 557	0.2
1900	2312 949	69.8	730 917	22.0	221 182	6.7	38 651	1.2	11 744	0.4
1910	2594 186	69.1	793 264	21.1	302 578	8.1	40 234	1.1	23 031	0.6
1920	2750 622	70.9	824 320	21.2	238 544	6.1	42 940	1.1	23 894	0.6
1930	2924 313	71.9	831 097	20.4	242 034	6.0	44 158	1.1	24 798	0.6
1940	3097 060	72.6	884 669	20.7	220 530	5.2	46 456	1.1	16 988	0.4
1950	3399 636	72.1	956 889	20.3	278 651	5.9	48 862	1.0	30 954	0.7
1960	3765 203	69.4	1025 450	18.9	514 306	9.5	49 823	0.9	74 279	1.4
1970	4071 289	64.9	1134 010	18.1	743 760	11.9	50 339	0.8	270 385	4.3
1980	4140 901	65.0	1172 502	18.4	622 226	9.8	51 128	0.8	379 203	6.0
1990	4374 694	63.6	1321 695	19.2	524 116	7.6	39 632	0.6	613 550	8.9
<i>Population of Swiss nationality</i>										
1910	2326 138	72.7	708 650	22.1	125 336	3.9	39 349	1.2	1 809	0.1
1920	2540 101	73.0	753 644	21.7	138 118	4.0	42 010	1.2	4 062	0.1
1930	2735 134	73.7	778 998	21.0	148 654	4.0	43 372	1.2	4 720	0.1
1941	2987 185	73.9	844 230	20.9	158 690	3.9	45 653	1.1	6 391	0.2
1950	3285 333	74.2	912 141	20.6	175 193	4.0	47 979	1.1	8 900	0.2
1960	3604 452	74.4	979 630	20.2	198 278	4.1	49 208	1.0	12 754	0.3
1970	3864 684	74.5	1045 091	20.1	207 557	4.0	49 455	1.0	22 920	0.4
1980	3986 955	73.5	1088 223	20.1	241 758	4.5	50 238	0.9	53 812	1.0
1990	4131 027	73.4	1155 683	20.5	229 090	4.1	38 454	0.7	74 001	1.3
<i>Population of foreign nationality</i>										
	268 048	48.6	84 614	15.3	177 242	32.1	885	0.2	21 222	3.8
1910	210 521	52.3	70 676	17.6	100 426	25.0	930	0.2	19 832	4.9
1920	189 179	53.2	52 099	14.7	93 380	26.3	786	0.2	20 078	5.6
1930	109 875	49.1	40 439	18.1	61 840	27.7	803	0.4	10 597	4.7
1941	114 303	40.0	44 748	15.7	103 458	36.2	883	0.3	22 054	7.7
1950	160 751	27.5	45 820	7.8	316 028	54.0	615	0.1	61 525	10.5
1960	206 605	19.1	88 919	8.2	536 203	49.6	884	0.1	247 465	22.9
1970	153 946	16.3	84 279	8.9	380 468	40.3	890	0.1	325 391	34.4
1980	243 667	19.6	166 012	13.3	295 026	23.7	1 178	0.1	539 549	43.3
1990										

Source: SFSO, Population censuses

Among Swiss nationals, however, Protestants are still the largest group. Between 1900 and 1990 the Catholic population of the country increased by 119.3% to reach a total of 2.45 millions. By contrast, the Protestant population increased by 58% between 1900 and 1970, which was then followed by a drop of 6.8% to give a total of 2.66 millions in 1990. Over the same ninety year period, the number belonging to other religions plus those of no religious persuasion showed a 54-fold increase to reach 0.52 million in 1990.

German-speakers have consolidated their position as the majority language group in the Confederation, numbering 4.37 millions in 1990 against the 1.32 millions French-speakers in the same year (Table 2). Between 1910 and 1990, the number of Swiss nationals giving German as their principal language rose by 77.6% as against a 63.1% increase in the number of French- and an 82.8% increase in the number of Italian-speakers. It may be noted that the figures for the breakdown of the total population by language have been influenced by the selective effect of international migration; for instance, the total number of Italian-speakers peaked at 0.74 million in 1970 but has since fallen back to 0.52 million largely as a result of net out migration. The Romansch-speaking population has remained generally stable and stands in marked contrast to the sharp rise in the numbers speaking a non-Swiss language, reaching 0.61 million in 1990.

3.2 Proportion of total population

Before 1900 Catholics accounted for around 40% and Protestants for almost 60% of the total population. But whereas the proportion of Catholics has steadily increased - from 40.6% in 1850 to 43.6% in 1990 with a peak of 49.4% being recorded in 1970 - the number of Protestants has fallen from 59.3% to 40% over the same period. The number of those stating they belong to a non-traditional religion has risen spectacularly in the past 30 years, from 1.2% in 1960 to 12.2% in 1990. Foreign nationals have mainly been responsible for the recent rise in the numbers professing other religions (chiefly Islam and the Orthodox Church) or none. In 1990 more than 3 out of 10 foreigners came into these two categories.

Protestants, who at the peak accounted for 61.6% of the total, are no longer in an absolute majority among Swiss nationals although they still comprise the largest group. (The current breakdown is made up of 47.3% Protestants and 43.5% Catholics.) Against that, the numbers belonging to non-traditional groups have increased considerably since 1930, accounting for 8.3% of the total in 1990, as have those declining to state a religious denomination, up to 1.1% in the same year.

There has been a noticeable change in the linguistic landscape of the country, mainly due to the presence of foreign nationals. Hence, whereas in 1880 the proportion of people not speaking one of the four national languages was only 0.2%, this figure had grown to 8.9% by 1990. It may also be noted that the proportion of Italians also increased markedly between 1880 and 1970, up from 5.7% to 11.9% over the period, only to decline subsequently to 7.6% of the total. None the less, as before, the two most common languages are still German and French.

There has been little change throughout this century in the breakdown of the population of Swiss nationality by principal language. In 1990 over 70% of the population were German-speaking, 20% French-speaking, 4% Italian-speaking and less than 1% Romansch-speaking. Among foreigners, migratory flows have shaped the language distribution. German was the net beneficiary until 1960, a position then taken over by Italian until 1980. At the last census two out of five foreigners spoke a non-Swiss language (Spanish, Portuguese, a Slavic language, English, etc.).

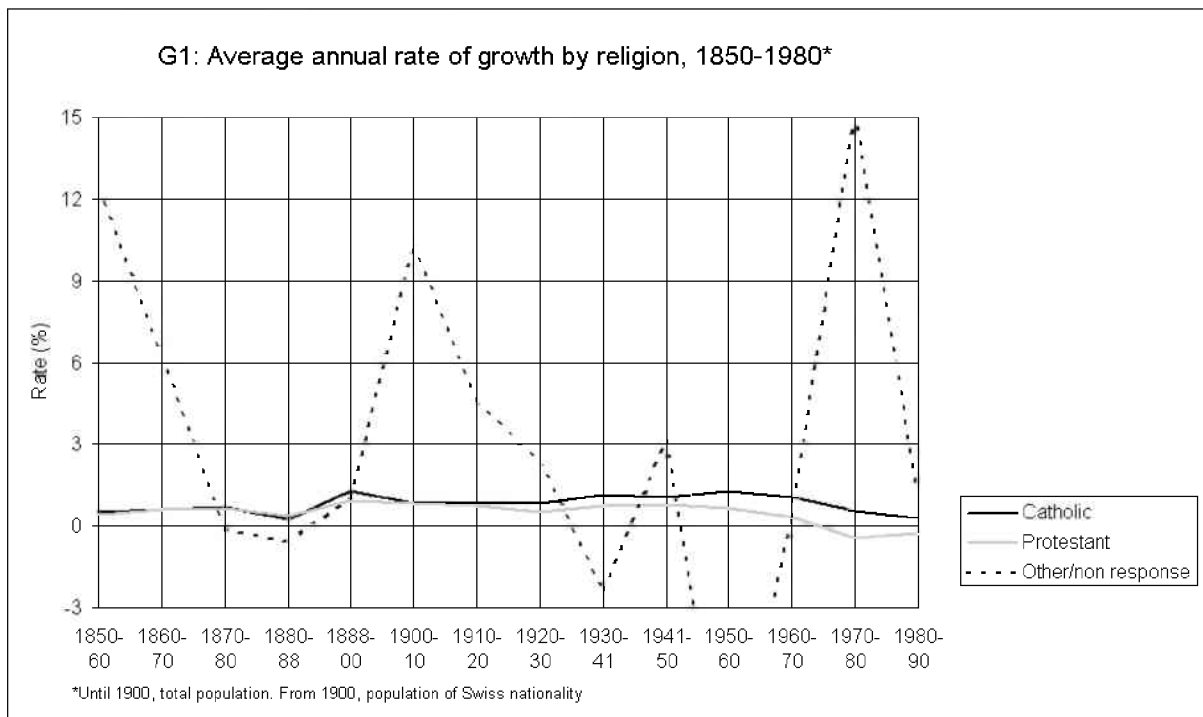
3.3 Annual growth rates

Growth rates, calculated for the different inter-census periods, provide a more detailed picture of the direction of demographic change (Table 3). Before 1900 the data relate to the total population, but thereafter to Swiss nationals only. Before the First World War the Catholic and Protestant communities developed at the same rate except for the period 1888-1900 (Graph 1). A notable feature of that period was the first large influx of Catholic Italian nationals, who came to Switzerland to work on railway construction and in the building industry.

Table 3: Switzerland. Inter-census growth rates (in %), by language and religion, 1850-1990.

Inter-census period	German	French	Italian	Romansch	Other languages	Catholic	Protestant	Other religion	Without religion
1850-1860	...	...	...	...	...	5.1	4.3	220.6	...
1860-1870	...	...	...	...	...	6.1	5.9	82.8	...
1870-1880	...	...	...	...	...	7.0	6.4	-1.2	...
1880-1888	2.6	4.4	-4.2	-0.9	-1.8	2.0	2.9	-4.6	...
1888-1900	11.0	15.1	42.6	0.8	79.1	16.5	11.7	12.9	...
1900-1910	12.2	8.5	36.8	4.1	96.1	15.5	10.0	164.7	...
1910-1920	6.0	3.9	-21.2	6.7	3.7	-0.5	5.8	24.0	...
1920-1930	6.3	0.8	1.5	2.8	3.8	5.1	4.5	8.3	...
1930-1940	5.9	6.4	-8.9	5.2	-31.5	5.3	5.4	-22.2	...
1940-1950	9.8	8.2	26.4	5.2	82.2	13.3	8.1	32.7	...
1950-1960	10.8	7.2	84.6	2.0	140.0	25.4	7.8	-52.3	...
1960-1970	8.1	10.6	44.6	1.0	264.0	25.0	4.5	90.2	138.2
1970-1980	1.7	3.4	-16.3	1.6	40.2	-2.3	-5.7	185.5	224.0
1980-1990	5.6	12.7	-15.8	-22.5	61.8	4.5	-2.6	76.5	97.3

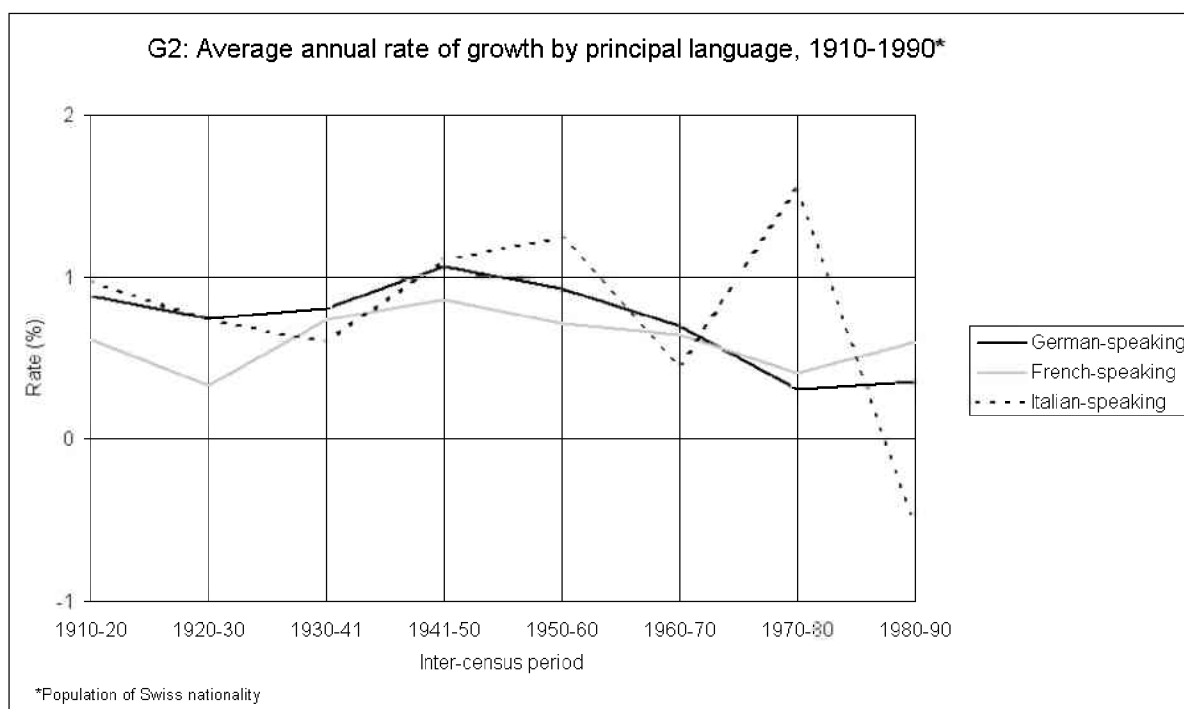
Source: SFSO, Population censuses



After 1900 the growth rate differential widened between the two principal religions, peaking during the decade 1950 and 1960: over this period, whereas the annual growth rate of Catholics rose, the rate within the Protestant population actually fell. More recently the disparity in growth rates between the two groups has remained unchanged. The other main feature of the 20th century has been the considerable growth in the numbers professing other religions.

The 1970-1980 inter-censal period was marked by negative growth among Protestant Swiss nationals whereas the Catholic growth rate, although positive, fell substantially.

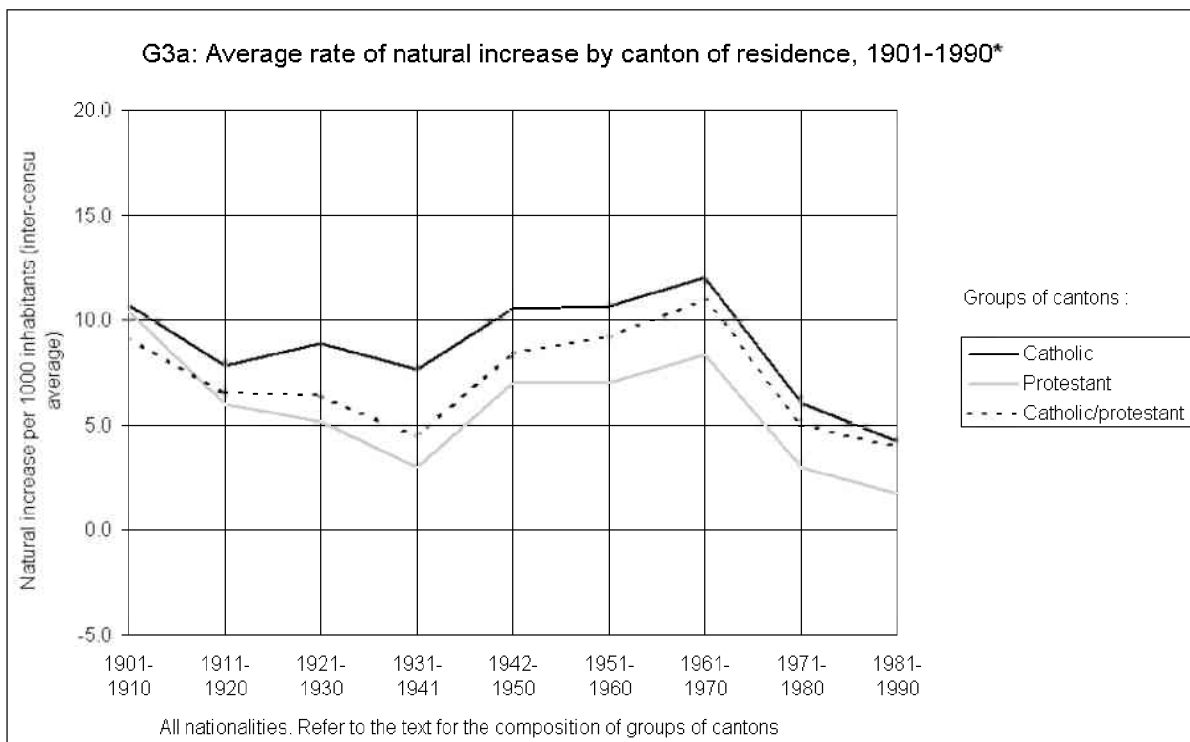
Growth rates by language have been more or less identical throughout the period under review, except for the population of Italian-speakers, whose numbers were very much influenced by migratory flows to and from Italy and the subsequent naturalisations after 1970. Up to 1960-70 the growth rate of German-speakers outstripped that of French-speaker, but since 1970 the situation has reversed, mainly as a result of more rapid linguistic change among the foreign population and native German-speakers in French-speaking Switzerland.

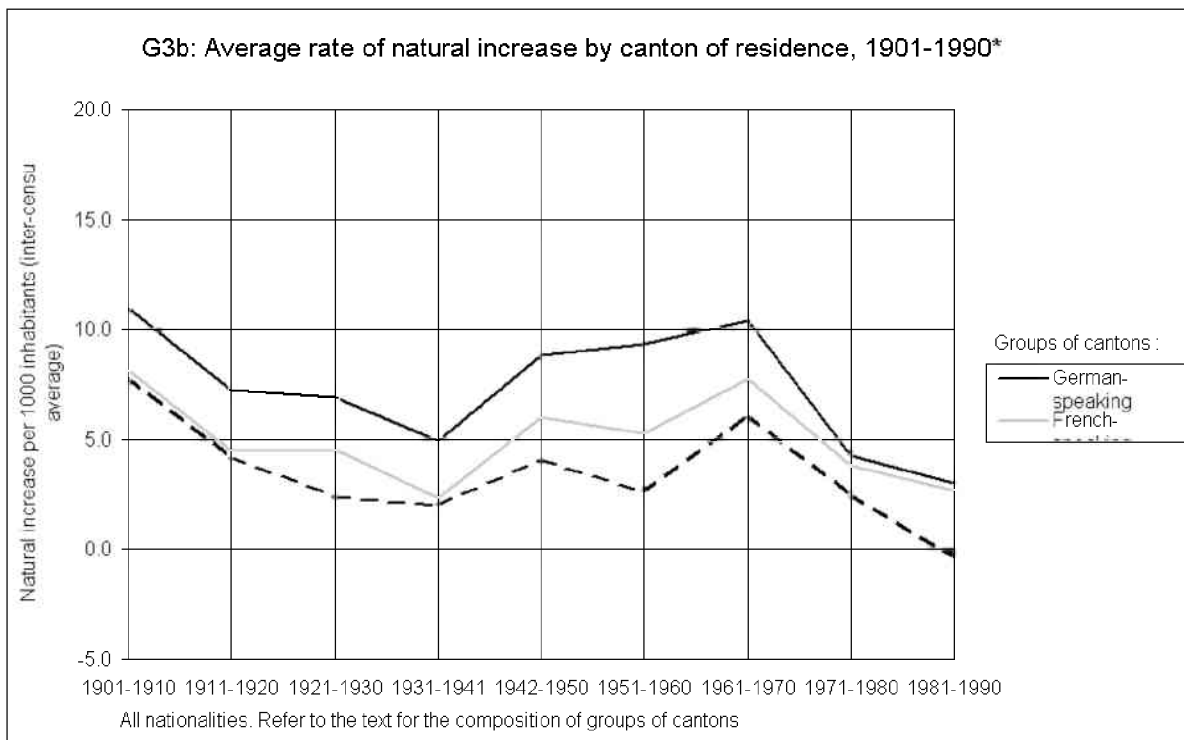


3.3.1 Breakdown of growth rates between 1900 and 1990

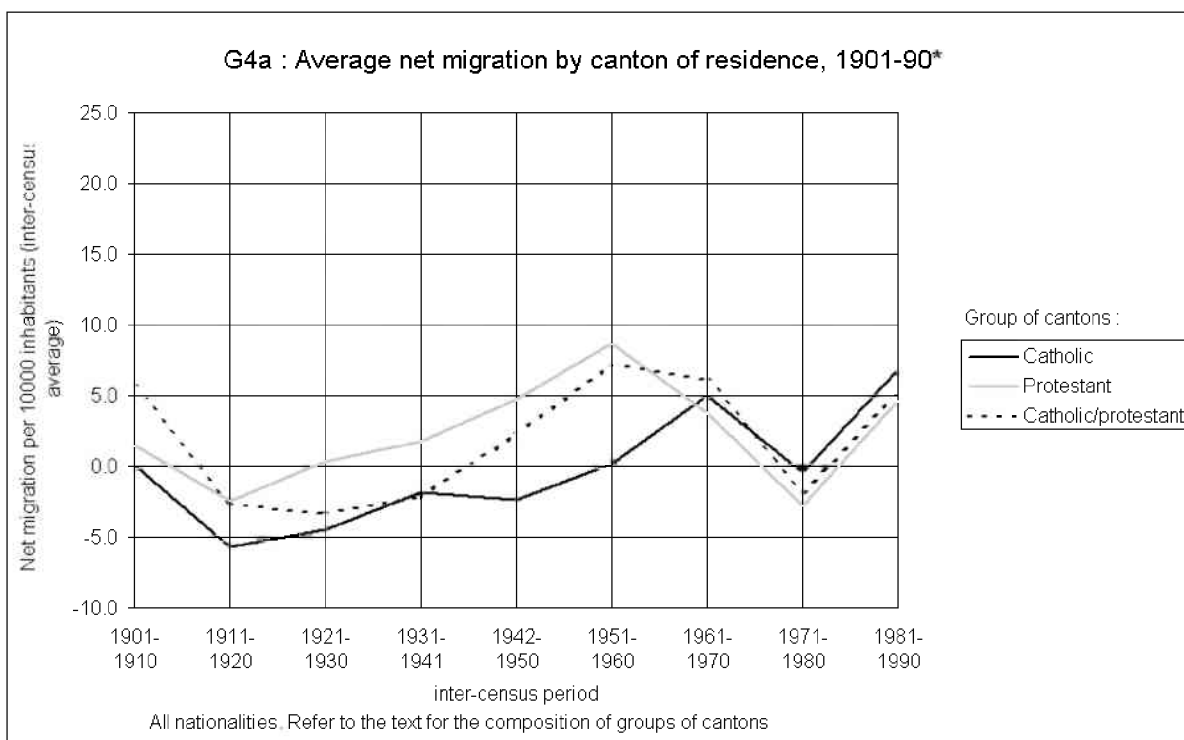
Inter-censal growth rates represent the excess of births over deaths, together with net migration and are discussed below by canton for the total population of the country (Swiss nationals and foreigners).

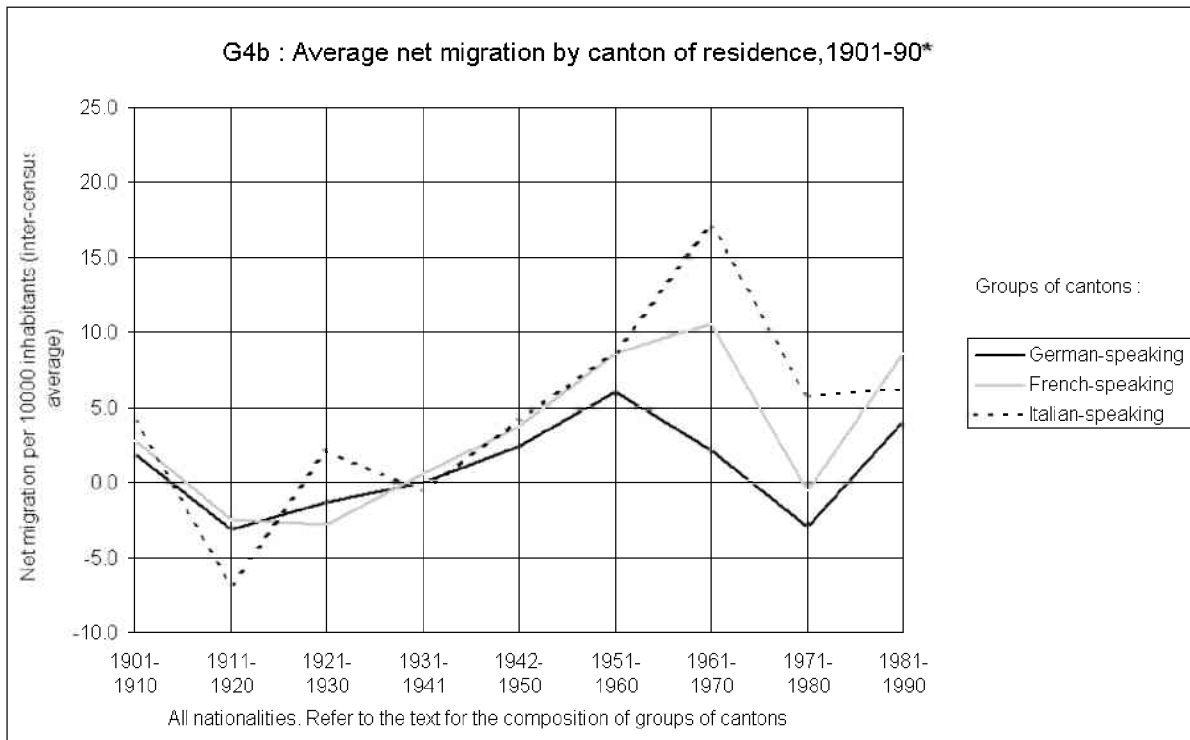
Since the cantons often have uniform characteristics in respect of religion and language, it is possible to present a reasonably clear picture of the changes occurring within the individual religio-linguistic groups and their component parts (readers are referred to section 1 for a discussion of the historico-political context). In the cantons where Catholic German-speakers predominate, which are found in the centre of Switzerland, the proportion of Catholics ranged from 91.5% to 98.7% in 1990. By comparison, the percentage of Protestants in those cantons with a predominantly Protestant German-speaking population was between 65.1% and 90.1% at the same time while in St. Gall, Graubünden, Solothurn and Aargau the population was fairly evenly divided between the two denominations. As regards French-speaking Switzerland, Fribourg and Valais had Catholic majorities, Vaud and Neuchâtel Protestant majorities (86.3% and 85.0% respectively), while in Geneva the two groups were evenly balanced. In the Italian-speaking canton of Ticino, the population was almost entirely Catholic (98% in 1900).





The excess of births over deaths has, on average, been higher in Catholic than in Protestant cantons (Graphs 3a, b). It has also generally been higher in German-speaking than in French-speaking cantons or in Ticino. The trend exhibited by Switzerland as a whole, namely a decline in the excess during the first part of the century followed by a rise from the time of the second World War to the years 1961-70, is evident in each cantonal group.

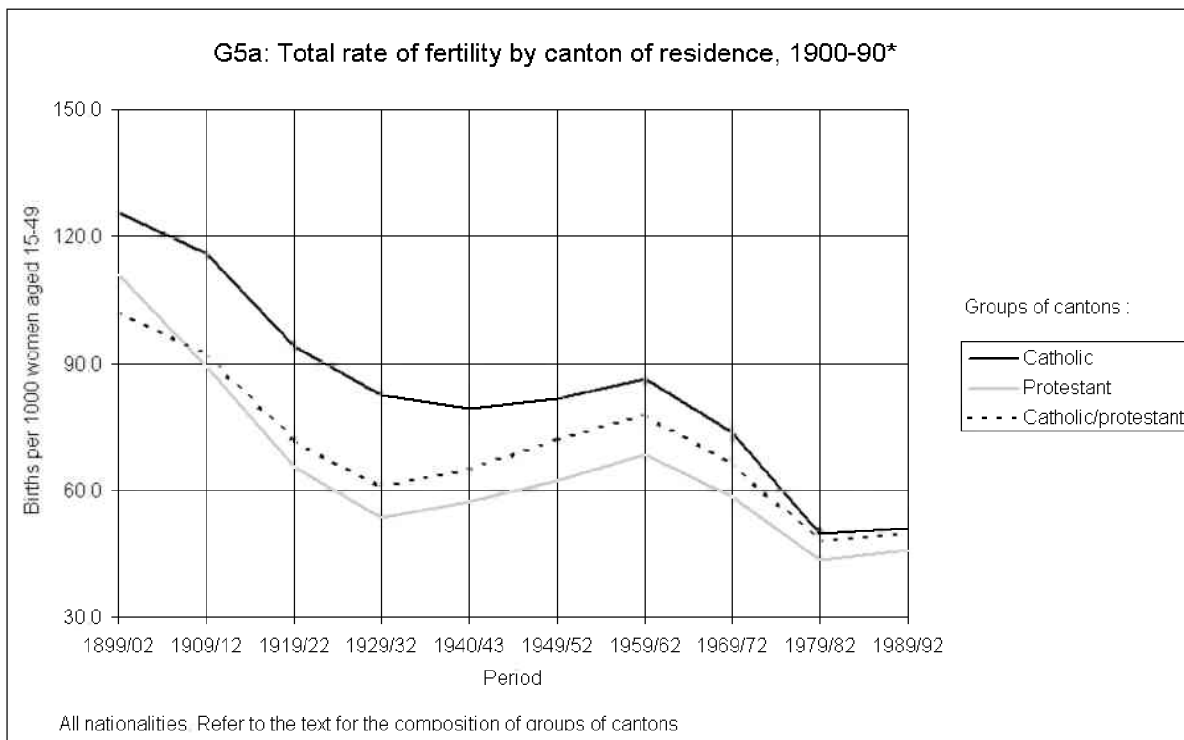




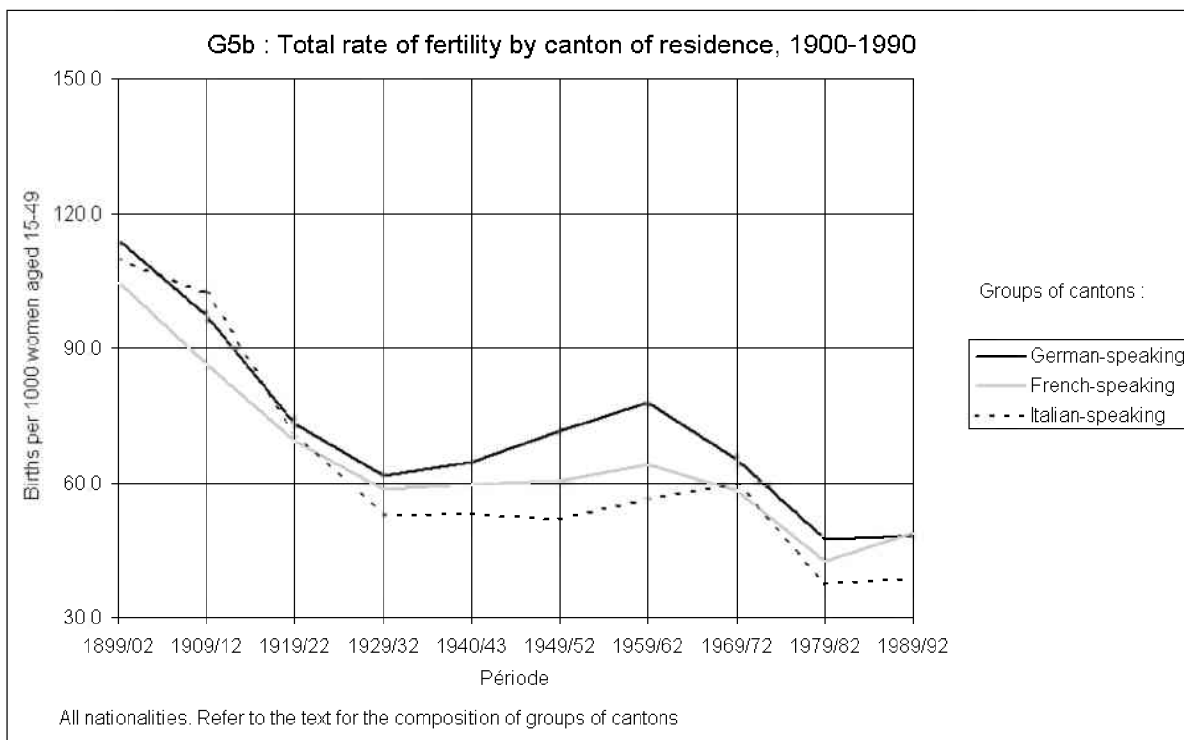
Estimates of average annual net migration rates were calculated as the difference between actual rates of growth and the excess of births over deaths. These show little variation from one group of cantons to another, although the rates are slightly higher for German-speaking than French-speaking cantons (Graphs 4a, b). The pattern of migration was seen to vary little among German-speaking cantons, whether Catholic, Protestant or of mixed religion. This may be compared with the marked differences that can be observed among French-speaking cantons, with predominantly Catholic cantons experiencing net out migration and the canton of Geneva a substantial net influx of people.

3.3.2 Fertility estimates 1900-90

Before 1950 the registration of births was not broken down by mother's age and, as a consequence, conventional fertility indicators involving mother's age cannot be determined by direct methods. As an alternative, we therefore present the total general fertility rates for each inter-censal period broken down by canton and religio-linguistic group, where the total general fertility rate represents the frequency of births in the Swiss or foreign female population of child-bearing age, i.e. the ratio of births to women aged 15 and 49 (Federal Statistical Office, 1975). Throughout the period, fertility has been higher in Catholic than in Protestant cantons although the gap has narrowed considerably over the past 30 years (Graphs 5a, b). By contrast, the association between cantonal language and fertility rates has been much weaker.



Of the Catholic cantons, the French-speaking cantons of Valais and Fribourg displayed higher fertility rates than German-speaking cantons up to the 1950s. Ticino, on the other hand, has recorded extremely low fertility since 1929-32. Fertility disparities within the Protestant language region have been less pronounced.



3.4 Religion of cohabiting spouses: mixed marriages in the period 1870-1990

The religious landscape has also changed over time in the sense that a significant increase in the number of (religiously) mixed marriages may be noted. Almost 97% of cohabiting married couples enumerated in the 1870 census were of the same religion (Table 4), 61.6% being unions between Protestants and 37.8% between Catholics. After that, the number of mixed marriages increased rapidly. According to the 1900 census, 11.7% of cohabiting married couples comprised a Catholic husband and a wife of a different religion with the rate then stabilising at around that figure until 1970 when a value of 13% was recorded. Subsequently, a further increase occurred, with the 1990 census showing that almost one in five marriages was composed of a Catholic husband and a wife was of another religion.

Table 4: Switzerland. Religion of spouses living together, 1870-1990

Cen- sus	All couples				Husband Catholic				Husband Protestant			
	Same religion		Different religion		Catholic wife		Wife of another religion		Protestant wife		Wife of another religion	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
1870	382 342	96.8	12 514	3.2	143 279	96.0	6 030	4.0	236 922	97.4	6 248	2.6
1880	401 421	94.6	22 827	5.4	155 077	92.7	12 275	7.3	244 220	96.0	10 095	4.0
1888	410 463	92.7	323 44	7.3	158 911	90.7	16 360	9.3	249 237	94.3	14 979	5.7
1900	466 306	90.8	47 067	9.2	181 867	88.3	24 121	11.7	281 874	92.9	21 451	7.1
1910	537 219	89.5	63 123	10.5	211 296	87.8	29 487	12.2	319 000	92.0	27 927	8.0
1920	569 658	88.9	71 129	11.1	208 474	87.2	30 563	12.8	352 678	91.5	32 620	8.5
1930	655 944	88.6	84 500	11.4	234 008	87.1	34 796	12.9	411 448	91.2	39 941	8.8
1941	754 061	88.3	99 927	11.7	266 993	86.5	41 681	13.5	478 458	90.5	50 303	9.5
1950	865 918	87.8	120 853	12.2	312 450	86.5	48 633	13.5	542 531	89.8	61 901	10.2
1960	1019 454	87.1	150 779	12.9	415 756	87.4	59 909	12.6	593 237	88.1	79 923	11.9
1970	1230 715	85.5	208 394	14.5	584 208	87.0	87 329	13.0	623 055	86.0	101 803	14.0
1980	1176 020	81.0	275 828	19.0	559 043	83.9	107 321	16.1	545 597	81.9	120 857	18.1
1990	1220 715	72.5	462 591	27.5	619 166	80.5	149 788	19.5	530 397	76.6	161 792	23.4

Source: Population census

The same general trends may be observed in couples where the husband is Protestant. The proportion of Protestant men married to women of a different religion was 2.6% in 1870, 7.1% in 1900, 9.5% in 1941, 14% in 1970 and 23.4% in 1990.

4. Demographic trends over the period 1971-96

Recent years have seen the emergence of other religions and the end of the absolute Protestant majority. From the individual statistical data available it is possible to produce a more detailed annual analysis of demographic phenomena for the religious and linguistic categories and for the five religio-linguistic groups for Swiss nationals (see section 2 and Table 5). With regard to language, the criteria for the sub-populations differ from those used in section 3. Instead of examining language at the individual level, the analysis focuses on the population in local authorities, classifying them according to majority language. This change of concept was necessary to ensure consistency between births, deaths and marriages, for which no information on language spoken is available, and the reference population.

Table 5: Population of Swiss nationality by religio-linguistic category ¹

Religio-linguistic category	Censuses					
	1970		1980		1990	
	Number	%	Number	%	Number	%
Catholic	2280 324	43.9	2513 304	46.2	2701 297	47.9
Protestant	2851 819	55.0	2844 165	52.3	2851 711	50.5
Other	57 476	1.1	77 383	1.4	90 710	1.6
German-speaking	3868 980	74.6	4038 065	74.3	4187 098	74.2
French-speaking	1106 603	21.3	1163 629	21.4	1215 563	21.5
Italian-speaking	189 294	3.6	209 193	3.8	216 959	3.8
Romansch-speaking	24 742	0.5	23 965	0.4	24 098	0.4
German- speaking Catholic	1564 652	30.1	1717 622	31.6	1838 841	32.6
German-speaking Protestant	2258 170	43.5	2262 085	41.6	2281 218	40.4
French-speaking Catholic	526 543	10.1	590 598	10.9	651 619	11.5
French-speaking Protestant	569 735	11.0	555 606	10.2	542 635	9.6
Italian-speaking Catholic	171 555	3.3	188 303	3.5	194 353	3.4
Other	98 964	1.9	120 638	2.2	135 052	2.4

¹ After distribution of persons professing no religion

4.1 Rates of growth 1971-96

Rates of growth in the various religio-linguistic groups can be presented under selected demographic headings. Demographically, a population changes over time by virtue of its birth, death and net migration rates. Change in the number of Swiss nationals, on the other hand, classified by religion and majority language in the local authority of residence may also be brought about by naturalisation, religious conversion especially on an inter-generational level and changes in language spoken.

The rates of growth, broken down under the selected demographic headings, are given for the period 1971-96 in Table 6 and reveal sharp disparities in growth between the Catholic population (+10.0 per thousand) and the Protestant population, for whom growth was virtually nil. This gap is attributable to differences in the excess of births over deaths, on the one hand, and to the immigration and naturalisation of large numbers of Catholics, on the other.

The extent to which births outstrip deaths is mainly a function of population age structure. Catholics, being a younger population, produce more children (Italian-speaking Catholics are an exception here), whereas Protestants, as an ageing population, record more deaths than births. The profiles of the five religio-linguistic groups reflect the combined effect of the different religious and linguistic characteristics. The growth rate is negative for Protestant French-speakers (-3.5) mainly because of an excess of deaths over births but is markedly positive for Catholic French-speakers (+10.5) and Catholic German-speakers (+9.0). In the case of Italian-speaking Catholics the excess of deaths over births has been offset by substantial net immigration.

Table 6: Average growth rate for the period 1971-96 by religio-linguistic category

Religio-linguistic category	Per thousand inhabitants				
	Total growth	Natural increase			Balance of migration ¹
		Total	Births	Deaths	
Catholic	10.0	4.1	13.2	9.1	5.9
Protestant	0.0	-1.7	10.5	12.2	1.7
German-speaking	3.7	1.4	11.8	10.4	2.3
French-speaking	3.3	0.5	11.7	11.2	2.8
Italian-speaking	6.0	-0.8	10.6	11.4	6.8
Romansch-speaking	0.1	2.4	14.7	12.3	-2.3
German-speaking Catholic	9.0	4.6	13.3	8.7	4.4
German-speaking Protestant	0.7	-1.2	10.6	11.8	1.9
French-speaking Catholic	10.5	4.3	13.6	9.3	6.2
French-speaking Protestant	-3.5	-4.0	9.9	13.9	0.5
Italian-speaking Catholic	5.9	-1.2	10.9	12.1	7.1

¹ Including naturalisations

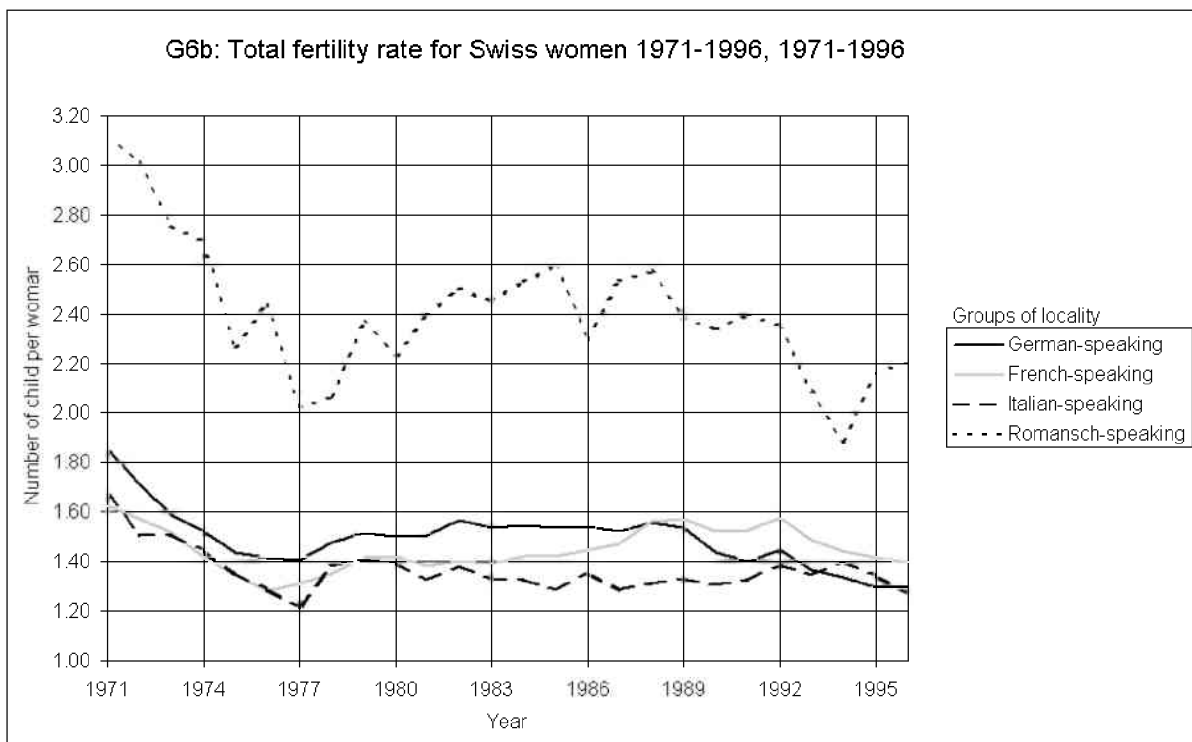
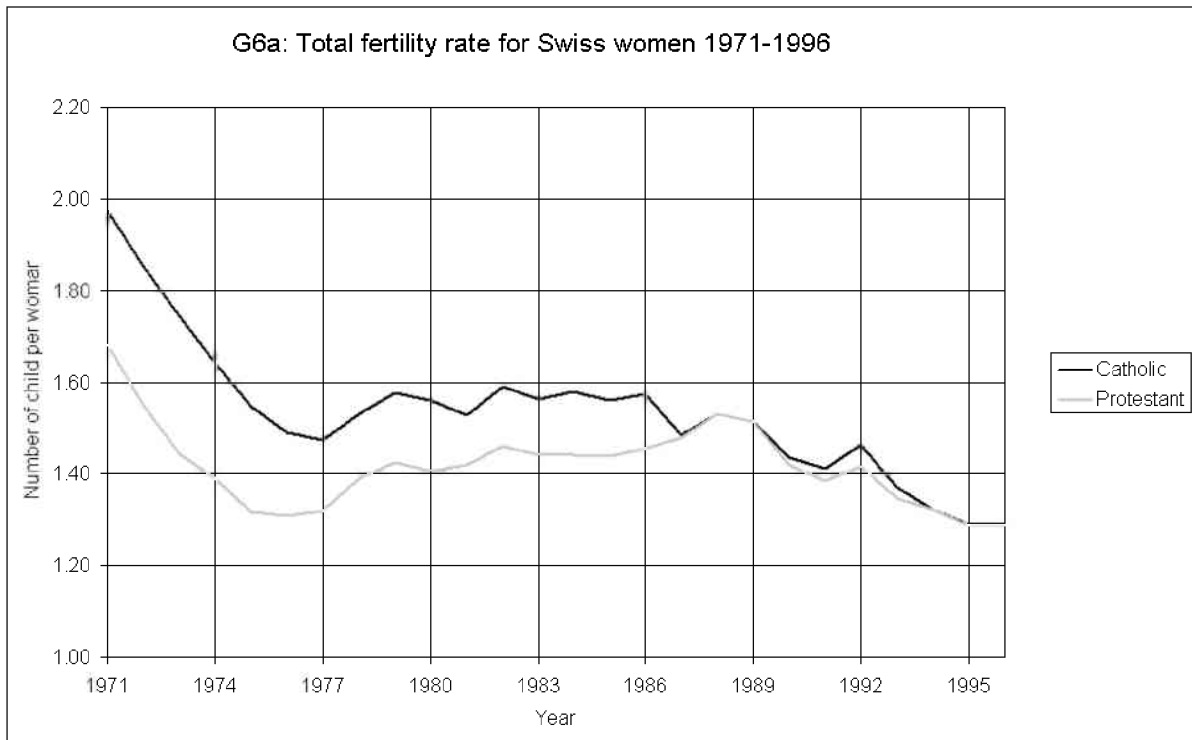
The use of more precise demographic indicators makes it possible to pin-point the *irregularities* in demographic behaviour patterns, resulting from the age structures of the different populations.

4.2 Fertility and its determinants

4.2.1 Average number of births per woman

During the period 1971-96 the fertility rate of women of Swiss nationality declined from 1.8 to 1.3 children per woman. The rate dropped sharply at the beginning of the 1970s but has been relatively stable since 1975. In 1971, rates varied from 1.45 in French-speaking Protestant areas to 2.05 in German-speaking Catholic areas. The figures for the other groups were about 1.7 children per woman. French-speaking Protestants had at that time almost completed *their second fertility transition* (Lestheaghe, 1995) - whereas German-speaking Catholics were still in the baby boom phase.

Total fertility rates have become more uniform over time, particularly since the 1980s. This standardisation of fertility behaviour has been a typical feature of the past 20 years (OFS, 1997a, Wanner et al., 1997b) and may be observed among both Catholics and Protestants (Graphs 6a, b). Whereas previously, Catholic women gave birth to an average of 0.3 more children than Protestant women, the fertility rates of the two denominations have been practically identical since 1987.



An interesting language-linked phenomenon may also be observed. Whereas the fertility patterns of the three majority groups have been broadly similar throughout the period, fertility in the Romansch-speaking region remains high, and still exceeds 2 children per woman.

4.2.2 Births outside marriage

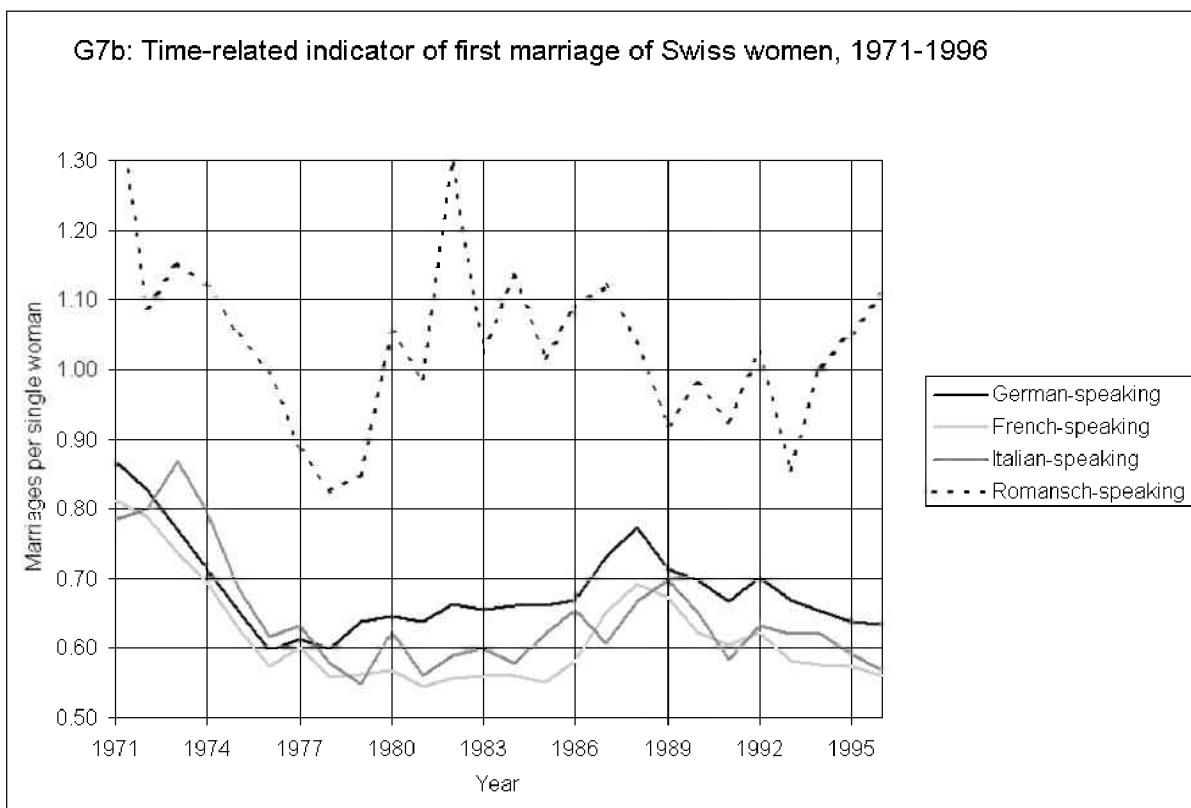
Although the proportion of births outside marriage for women of Swiss nationality has increased during the period under review from 4.1% to 8.0%, this is still rather low in comparison with most neighbouring countries. During the 1970s there were no significant differences in the proportion of births outside marriage as between religious groups, language regions or religio-linguistic groups, but at the end of the 1980s and the start of the 1990s such differences as there were did grow slightly. An increasingly large proportion of women, often at around 30 years of age, give birth to children outside marriage; the proportion tends to be highest in the cantons of Basel-Urban and Geneva and in western Switzerland generally, which are predominantly Protestant areas (OFS, 1997b). In 1996, births outside marriage amounted to 6.7% among Catholics and 8.1% among Protestants.

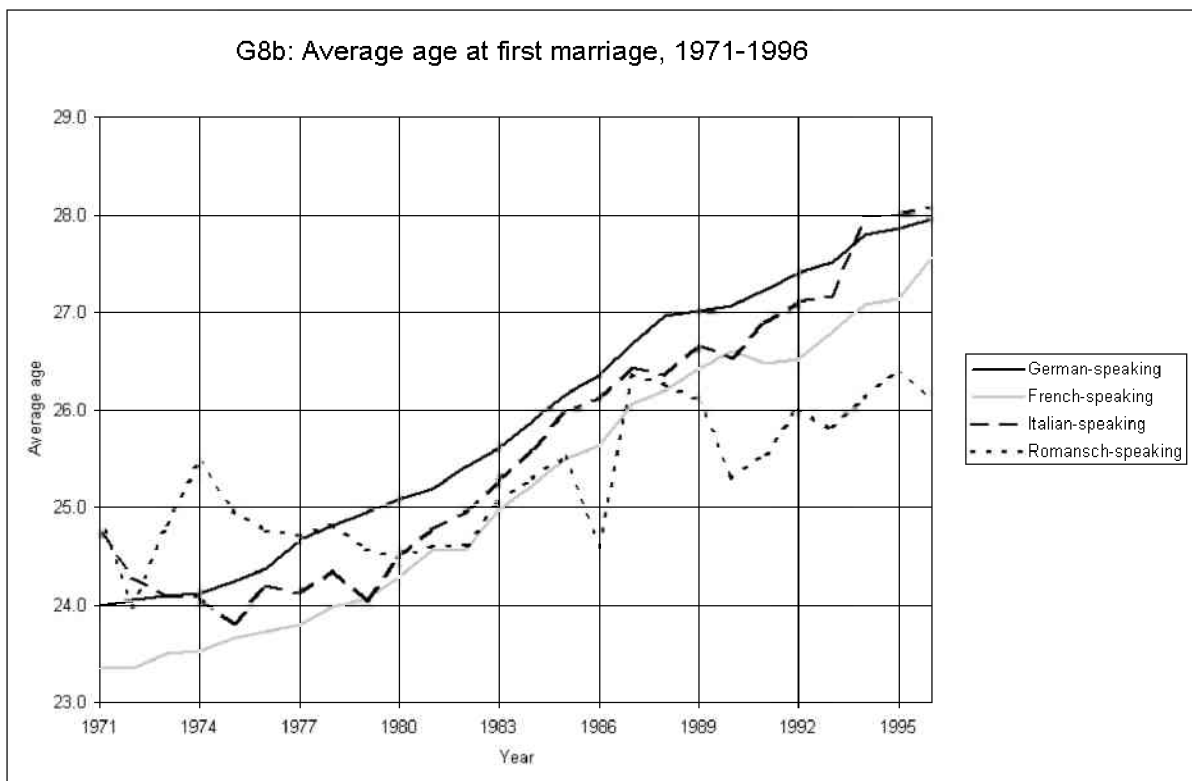
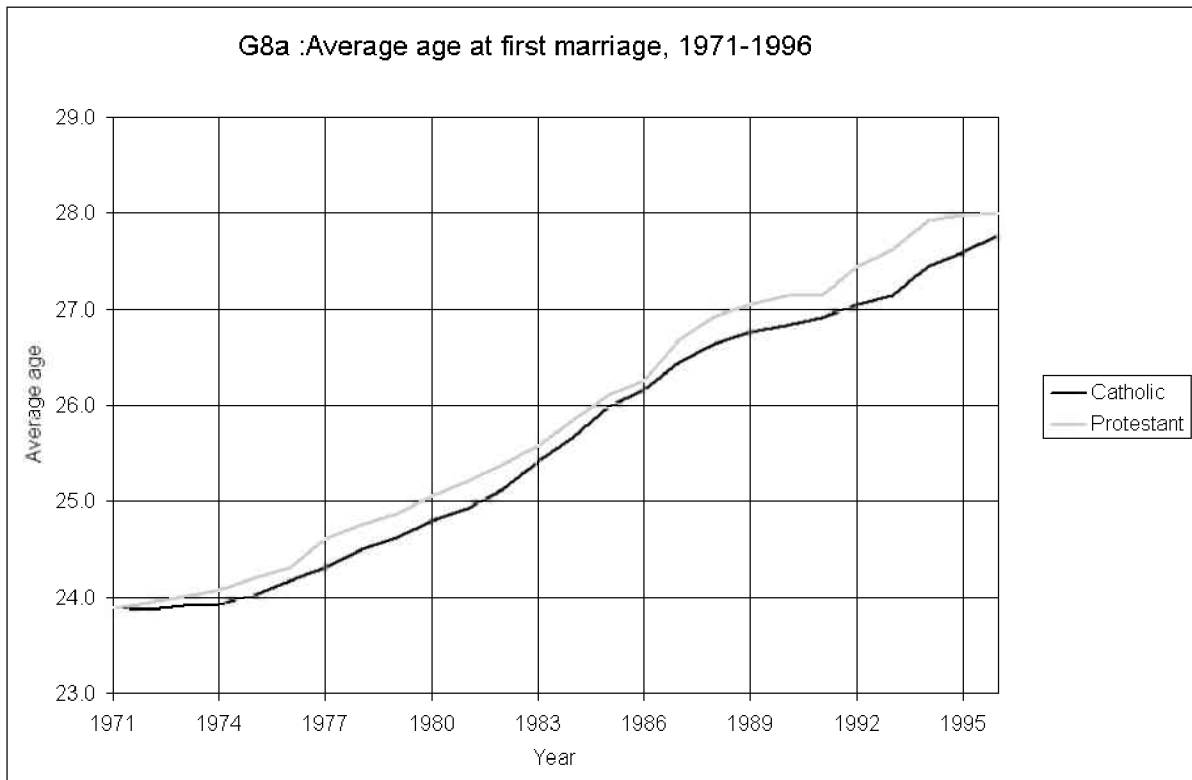
4.2.3 Marriage rates

The marriage rate transition, characterised by a decline in marriages from over 90% to about 60%, began in Switzerland in the mid-1960s. Ten years later, for the country as a whole and for all the groups concerned, the marriage rate transition was complete and the first-marriage indicator over time (FMOT) stood at slightly over 60 first marriages per 100 single women (Graphs 7a, b). Since then the rates have again changed because of the emergence of a new marriage trend, a key element of which was a revival of marriage during the late 1980s.

Since the beginning of the 1980s, reversing the situation of previous periods, Protestant women have recorded a higher marriage rate than Catholic women, although there is very little variation between their first marriage rates. A survey by language region shows marginal differences between German-speakers (FMOT slightly higher) and French- and Italian-speakers (FMOT lower). Rates in the different regions varied from 55 to 65 marriages per 100 single women in 1996. By contrast, the Romansch minority has not even entered the marriage transition and marriage is still virtually a universal practice among the group.

As in other European countries, the average age of Swiss women at first marriage has been rising, and this applies to all religious and linguistic groups (Graphs 8a, b). Catholic women marry earlier than Protestant women but the gap between the two groups is never more than half a year. Similarly, women living in German-speaking regions marry on average 8 months later than women living in French-speaking regions (the comparative figures were 24.0 as against 23.3 years in 1971, and 27.9 as against 27.1 years in 1995). The age at which Italian-speakers marry lies in between the two, while for Romansch-speakers it varies between the ages of 25 and 26. Additionally, there are marked differences among the five religio-linguistic groups studied, with Catholic French-speakers marrying earliest and Catholic and Protestant German-speakers marrying latest.





4.3 Death rates

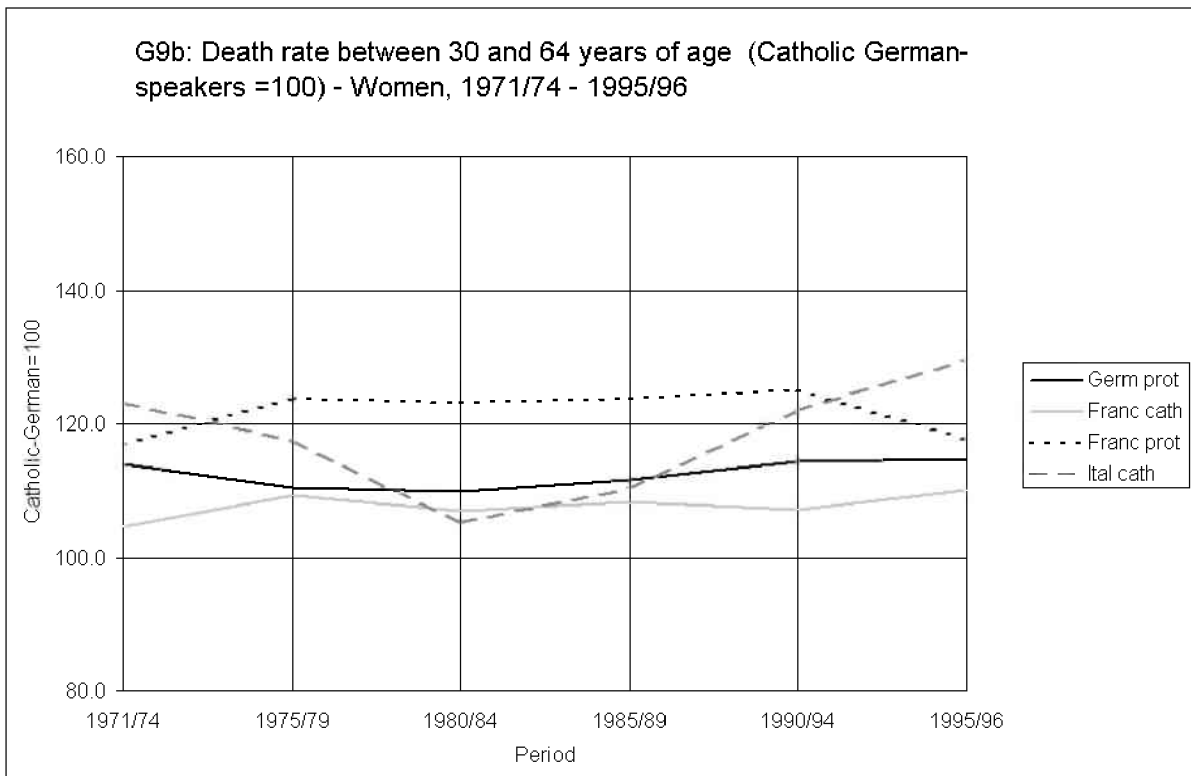
Crude death rates vary considerably from group to group (cf. section 4.1) but these are largely accounted for these by differences in age structure. More precise indicators show that real mortality differentials are slight and have decreased as the century has advanced, as has been noted at canton level by Peng Fei et al. (1998). In 1988-93 life expectancy at birth ranged over 1.5 years for men and 0.6 years for women (Table 7). A trend reversal may also be observed: up to 1978-83 Protestants lived longer than Catholics, but this is no longer the case. The average life span of German and Italian speaking males is also longer than in the corresponding groups of French- and Romansch-speakers. Among women the average life span shows only marginal variations.

Table 7: Life expectancy at birth of the Swiss population by religio-linguistic category, 1971/75 - 1988/93

Religio-linguistic category	Men			Women		
	1971/75	1978/83	1988/93	1971/75	1978/83	1988/93
Catholic	70.5	72.0	74.4	77.3	79.3	81.3
Protestant	71.3	72.9	74.2	77.3	79.4	80.9
German-speaking	71.3	72.8	74.5	77.3	79.4	81.0
French-speaking	70.3	71.6	73.5	77.6	79.4	81.1
Italian-speaking	69.9	72.0	74.4	77.3	79.6	81.3
Romansch-speaking	70.9	71.6	73.5	75.3	78.2	81.3
German-speaking Catholic	70.8	72.4	74.7	77.3	79.3	81.4
German-speaking Protestant	71.5	73.1	74.5	77.2	79.4	80.8
French-speaking Catholic	69.9	71.2	73.7	77.4	79.2	81.2
French-speaking Protestant	70.5	71.9	73.2	77.7	79.3	81.0
Italian-speaking Catholic	69.5	71.6	74.2	77.0	79.1	81.1

Around 1990, among males, Protestant French-speakers (73.2 years) recorded the lowest life expectancy at birth, and among women, Protestant German-speakers (80.8 years). Against that life expectancy was highest among Catholic German speaking males (74.7 years) and Catholic German speaking females (81.4 years). Differences in average life span according to region of residence have never been less marked and can mainly be put down to relatively high early death rates in the cantons of Fribourg, Jura and Valais (all three predominantly French-speaking), which may be attributed to accidental deaths and alcohol.

Mortality between the ages of 30 and 64 reflects different forms of risk behaviour leading to possible early death, and here there are marked fluctuations by religio-linguistic group with the Catholic German-speaking group recording the lowest death rate in this age range throughout the period under review. The corresponding rate among Protestant French-speakers was 45% higher in 1995-96 (20% higher in 1971-74) due to the higher risks of dying from violence, infectious diseases and certain types of cancer. It is clear that whereas the risk factors in men have increased in recent decades those for women have remained relatively stable.



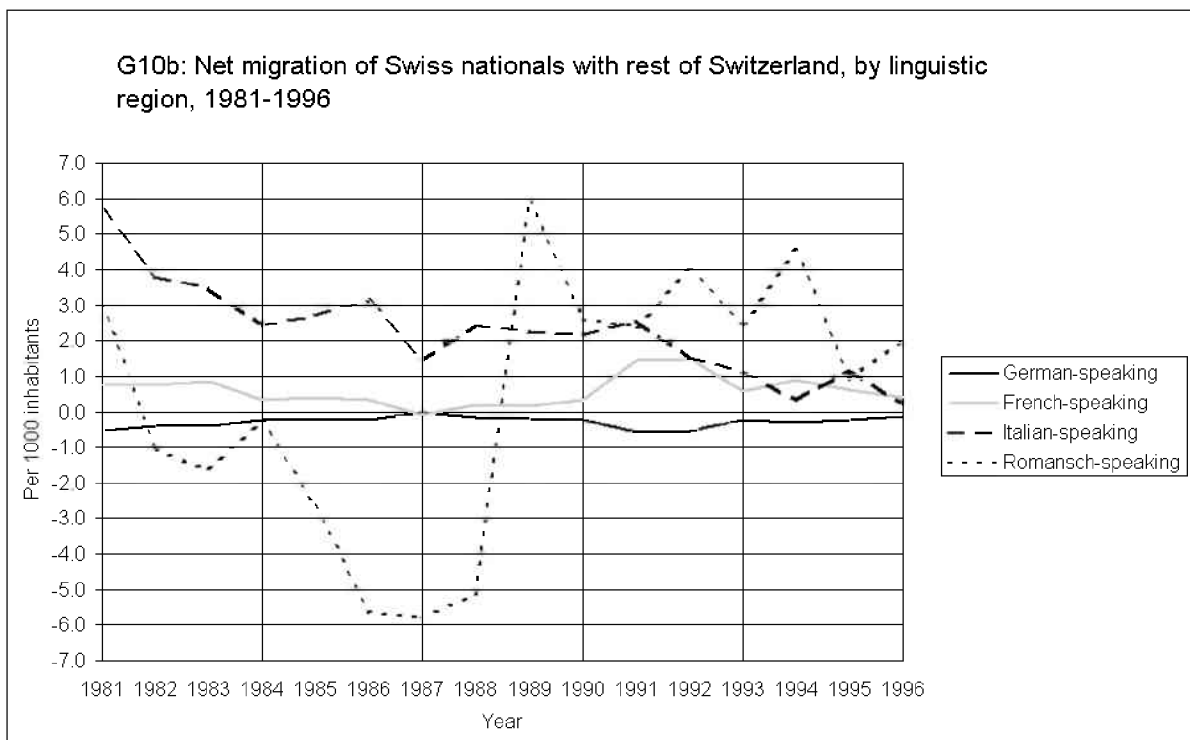
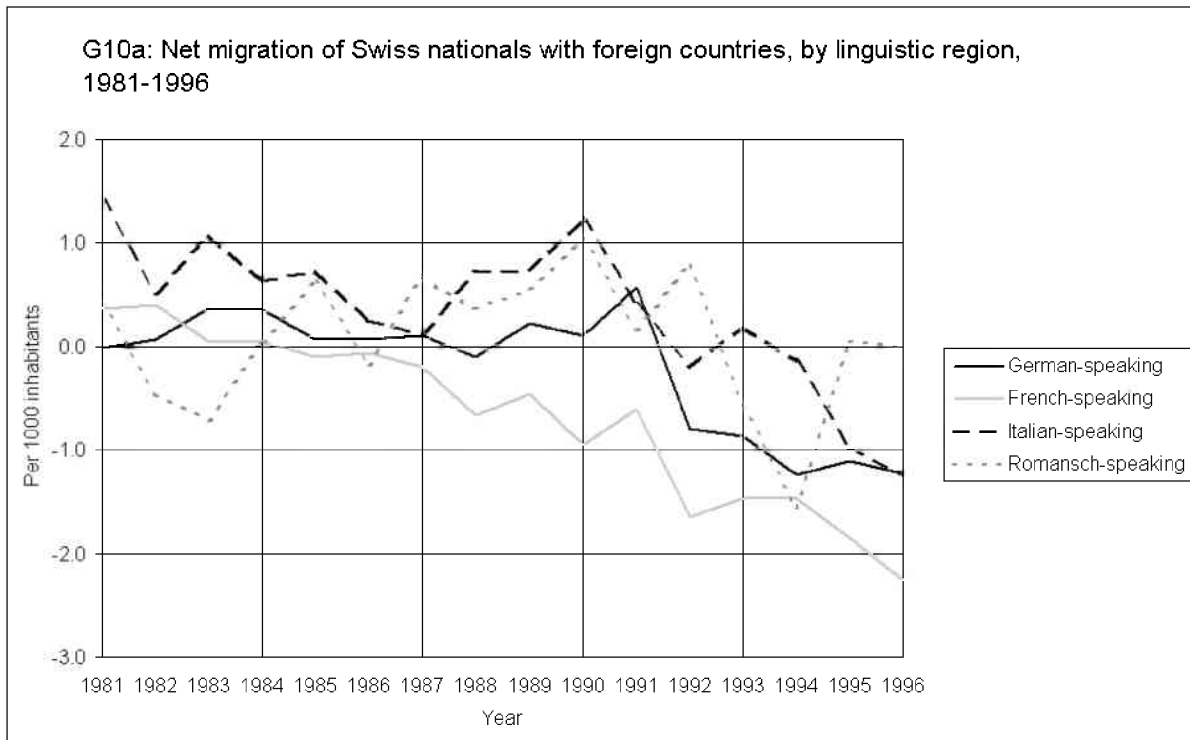
4.4 International migration

Migration, together with natural increase (the surplus of births over deaths) represent the second group of factors that have affected the language and religious composition of the Swiss population.

During the period 1971-96 the country gained considerably more Catholics than Protestants as a result of net migration. The Italian-speaking area also experienced a large surplus, with the net annual inflow, including naturalisations, standing at 6.8 per 1000 (Table 6). By contrast, the Romansch region lost people through migration.

Otherwise, the low migration gains of French- and German-speaking Protestant areas may be compared with the much greater rate of migration growth in French- and German-speaking Catholic regions.

For the period 1981 to 1996, there are regional figures for net flows to and from the rest of Switzerland and foreign countries. These show a sharp fall in migration from foreign countries into all regions, with the balance actually turning negative from the early 1990s on (Graphs 10a, b). The highest migration deficit is recorded by the French-speaking population, whereas the deficit is virtually nil in the Romansch region, and also in the Italian-speaking area up to 1994. It should be pointed out that before 1 January 1992, when a new law on naturalisation came into force, women migrating to Switzerland after marriage to a Swiss resident were counted as immigrants of Swiss nationality for statistical purposes and helped maintain a positive migration balance for Swiss women until 1991. However, the data for women present an essentially artificial picture since, when only men are taken into account, both French- and German-speaking areas of the country have recorded migration deficits since 1981 among their resident populations, except for the years 1983 and 1984 in the case of German-speaking areas. A migration deficit has therefore existed among Swiss people for a least 15 years and is nothing new.



The migration balance with the rest of Switzerland is negative for German-speakers - in other words, during the period under review, there has been a net movement of German-speakers to other regions, mainly to the Italian and French-speaking areas of the country. The Romansch is a case apart. The migration balance, markedly negative until 1988, became positive as from 1989.

4.5 Acquisition of Swiss nationality

Naturalisation is now the principal factor in growth of the population of Swiss nationality and has a key influence on the composition and evolution of the religious and linguistic groups of the country.

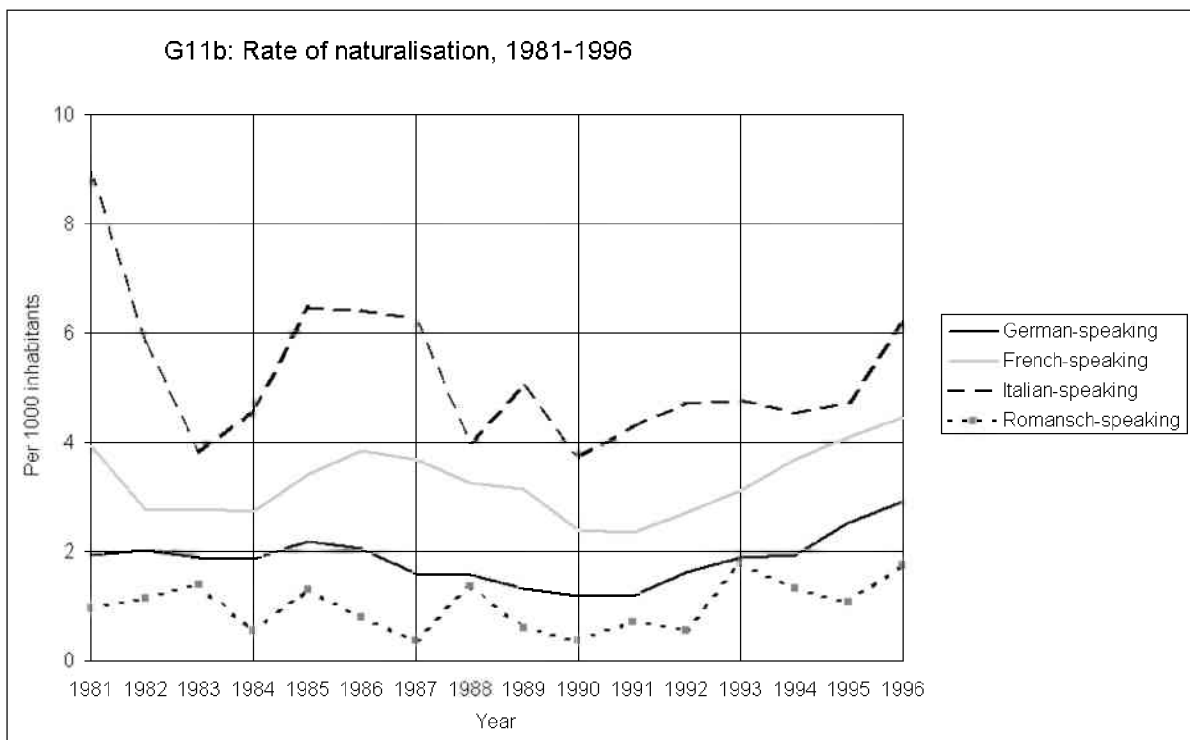
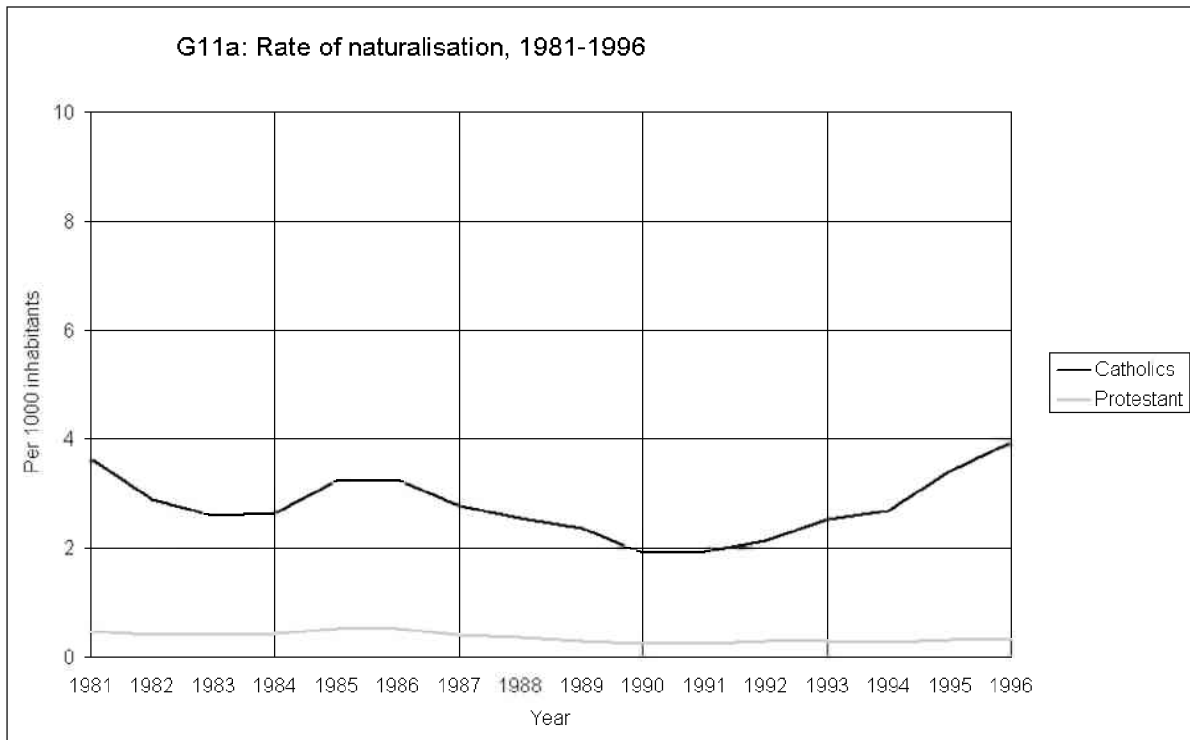
Information on persons acquiring Swiss nationality is limited to their region of residence and nationality before naturalisation. A breakdown of naturalisations, based on the pattern of religious affiliation in the country of origin, would suggest that, in recent years, slightly fewer than 60% of those acquiring Swiss nationality are Catholic, approximately 35% are of another religion and only 5% are Protestant (Table 8). The overall trend is towards fewer Catholic and Protestant naturalisations (mostly people from Europe) and correspondingly more naturalisations of people of other religions (from non-European countries).

Table 8: Acquisitions of Swiss nationality by religion ¹, 1981-96

	Total number	Distribution, as %			
		Catholic	Protestant	Other	Total
1981	14 299	64.2	9.5	26.3	100.0
1982	12 723	58.0	9.4	32.6	100.0
1983	11 831	56.1	9.9	34.0	100.0
1984	11 850	57.6	10.2	32.2	100.0
1985	14 393	58.5	10.5	30.9	100.0
1986	14 416	59.4	10.2	30.5	100.0
1987	12 097	60.9	9.5	29.6	100.0
1988	11 356	60.0	9.4	30.6	100.0
1989	10 342	61.3	8.3	30.4	100.0
1990	8 658	59.6	8.5	31.9	100.0
1991	8 757	59.7	8.4	32.0	100.0
1992	11 133	52.4	7.8	39.8	100.0
1993	12 898	53.6	6.5	39.8	100.0
1994	13 739	54.0	5.7	40.4	100.0
1995	16 790	56.3	5.4	38.4	100.0
1996	19 166	57.0	5.0	38.0	100.0

¹ Estimated according to religious composition of country of origin

In terms of absolute growth it is the Catholic population which continues to gain most from naturalisation, although when viewed relatively the rate of accretion to the group 'other religions' is the highest at almost 50 per 1000 compared with around 4 per thousand in the Catholic population and virtually zero among Protestants. The increments due to naturalisation amount to 2 to 3 per 1000 in German-speaking Switzerland, 2 to 4 in French-speaking Switzerland, 4 to 9 in Italian-speaking Switzerland but to only 1 per 1000 in the Romansch local authorities (Graph 11a, b). Variations observed in the language regions over time are mainly due to modifications of the Naturalisation Act and to changes in the numbers of f



4.6 Lifetime and inter-generational changes in religion and language

There are no statistical data on persons who change their religion during their lives, but thanks to the 1994-95 family survey we do have information on intergenerational changes of religion. A child is not systematically of the same religion as the parents and, when the latter are of different religions, various developments are possible.

The survey showed that when the religion of respondents was compared to that of their parents, there was an 89.9% probability that when both parents were Catholic the respondent would also be Catholic. The corresponding figure in the case of Protestants was 89.1% (Table 9). Also, among respondents whose parents did not share the same religion 10% were found to be Protestant and 6% Catholic. When one parent was Catholic and the other Protestant, the child was usually brought up as a Catholic. When one parent was neither Catholic nor Protestant and the other was Catholic, less than half of the respondents questioned adopted Catholicism (49.3% when the father was Catholic and 38.6% when the mother was Catholic). The corresponding proportions were higher among Protestants.

Since the focus is on language regions rather than the language of the individuals making up each region, changes in the language of individuals do not affect our findings. Lüdi and Werlen (1997) have shown that a change of language is not always the result of migration by individuals or of their families to another language region. It may also occur, for example, in an inter-language marriage and in an inter-generational sense, more frequently in the case of German-speakers resident in French- and Italian-speaking regions than vice-versa.

Table 9: Practice of religion by the persons questioned according to the practice of the parents (%)

Practice of the parents		Practice of the children			
Father	Mother	Regular	Irregular	Non-practising	Total
Regular	Regular	32.8	41.4	25.8	100.0
	Irregular	37.7	37.6	24.7	100.0
	Non-practising	44.2	22.4	33.4	100.0
Irregular	Regular	3.4	58.6	38.0	100.0
	Irregular	7.8	60.8	31.4	100.0
	Non-practising	25.4	22.8	51.8	100.0
Non-practising	Regular	1.5	37.4	61.1	100.0
	Irregular	2.3	37.8	59.9	100.0
	Non-practising	4.6	14.7	80.7	100.0

Source: FFS Survey, 1994/95

5. Age structure of groups and communities

There are specific structural features in the age pyramids of the different linguistic and religious groups (Graphs 12a-f). In the case of the Catholic population, the pyramid is fir-tree shaped, showing ageing from below starting in the early 1970s at the onset of the 'second' demographic transition. The ageing of the Protestant community has been going on for longer. Each region displays its own characteristic pyramid. That of the Romansch-speaking region is an interesting case since the pyramid, despite the fluctuations resulting from small numbers, still has a "classic" shape, with a relatively broad base. The indentation on either side of the age of 20 is caused by out migration for reasons of study and to find work.

The different indicators of ageing show that the process is more marked for Protestants than Catholics (Table 10). There are also noticeable structural differences between language regions, with relatively high numbers of elderly among Italian-speakers and a low proportion of people of economically active age among Romansch-speakers.

G12: Age pyramids, 1990 census

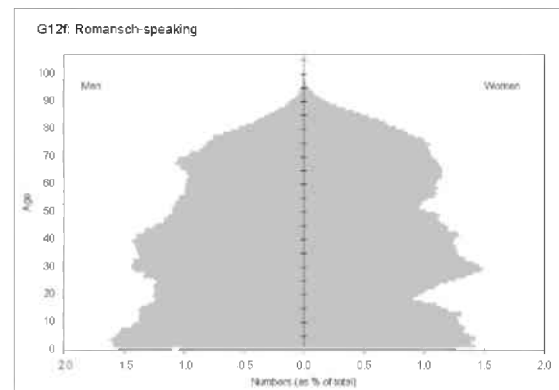
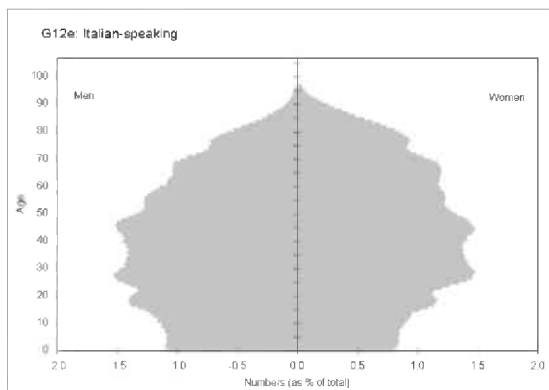
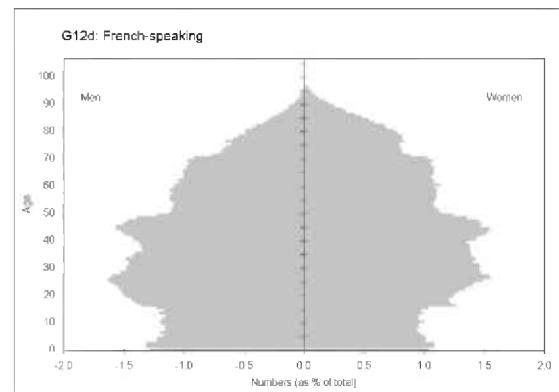
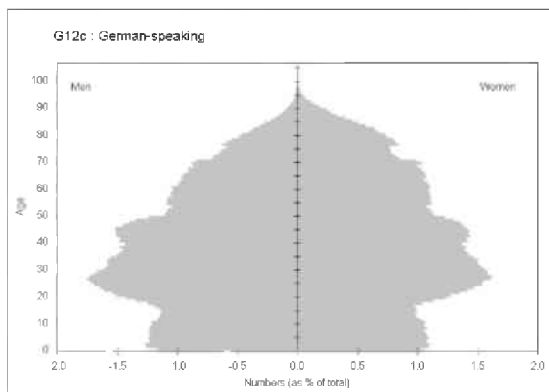
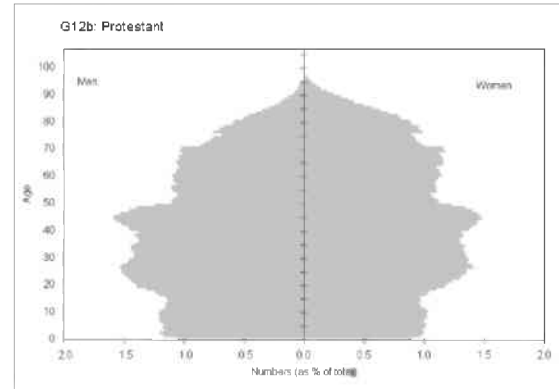
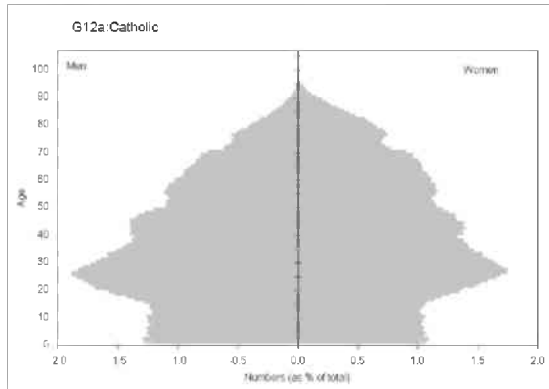


Table 10: Distribution of population by age and religio-linguistic category, 1990 census

Religio-linguistic category	Ratio			15-39/40-64	80+/65+
	%<15 years	% 15-64 years	% 65 years+		
Catholic	17.1	68.1	14.7	129.2	24.3
Protestant	16.1	64.3	19.6	108.4	27.4
German-speaking	16.9	66.7	16.4	120.9	25.7
French-speaking	16.4	66.3	17.3	114.5	26.7
Italian-speaking	14.8	66.5	18.7	105.1	25.1
Romansch-speaking	21.3	59.7	19.0	114.5	24.0
German-speaking Catholic	17.4	68.4	14.2	133.5	24.1
German-speaking Protestant	16.6	64.5	18.9	111.9	26.9
French-speaking Catholic	16.8	68.2	15.0	125.2	24.5
French-speaking Protestant	14.1	63.3	22.5	94.8	29.0
Italian-speaking Catholic	14.8	66.5	18.7	105.8	25.1
Sub-total	16.7	66.6	16.7	118.8	25.9

The Catholic population in the various language regions displays a higher proportion of young people and a lower proportion elderly. By contrast, Protestant French-speakers are marked out by a high proportion of people aged 65 and over (22.5%), of which almost 30% is aged 80 and over, and also by the fact that the proportion of working age aged 40 and 64 exceeds that aged 15 to 39. On the other hand, the working age population is younger among Catholic German-speakers, the 1990 census recording 133 people aged 15 to 39 for every 100 aged 40 to 64.

These disparities in the process and rate of ageing will affect the *demographic equilibrium* among the various groups. In 1990 there were still large cohorts of Catholic women nearing the age (approximately 30) of greatest fertility and for this reason alone the growth rate of the Catholic population will exceed that of Protestants in the coming years. Demographic projections provide a clearer picture of the demographic future of the populations studied.

6. Projections

Two factors are likely to influence the future of the groups studied:

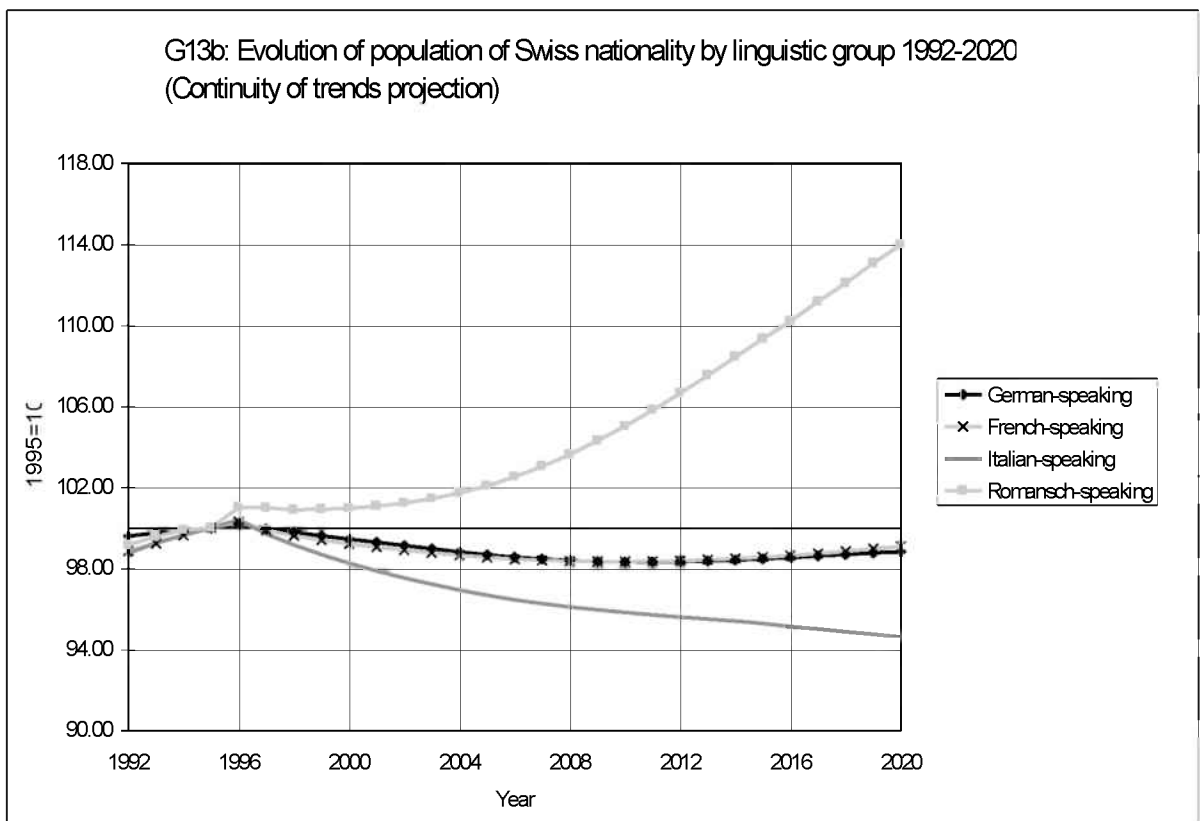
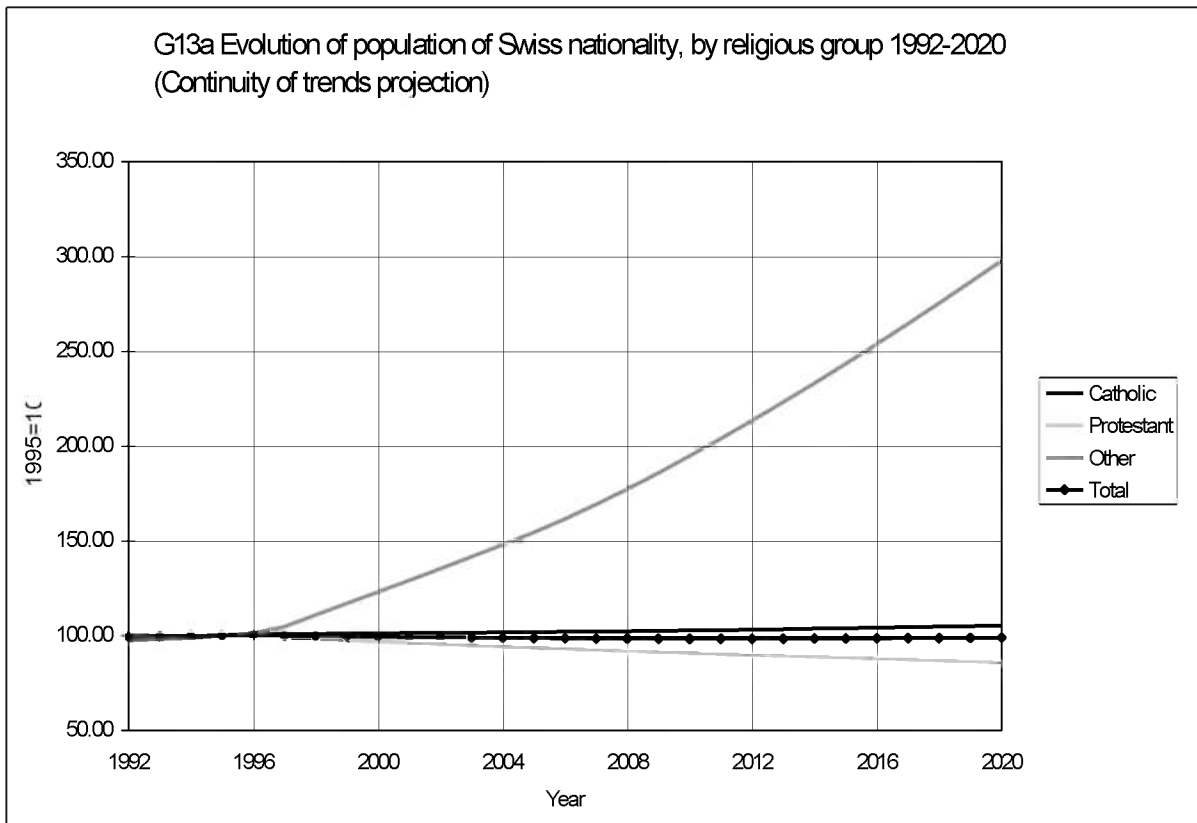
- the *structure* of a population influences the number of births and deaths, as well as in-migration and out-migration. Thus, a population with a large proportion of young people will probably experience more births, a higher rate of migration and fewer deaths than an older population.
- Specific patterns of demographic behaviour can alter the future evolution of a population.

Table 11 presents the results of two suggested scenarios, 'continuity of trends' and 'standardisation of behaviour patterns', the assumptions of which are set out in section 2.2. Both scenarios indicate that Catholics will probably be the majority group by the end of the 20th century and achieve an absolute majority by 2010. Although the distribution of population by region is likely to remain unchanged, the proportion of Catholic German-speakers will increase very significantly whereas that of Protestant German-speakers will fall. The 'continuity of trends scenario' also points to the emergence of a population not professing either of the two principal religions.

Table 10: Distribution of religio-linguistic categories according to population trend projection 1990-2020

Religio-linguistic category	'Continuity of trends' scenario				'Standardisation of behaviour patterns' scenario			
	1990	2000	2010	2020	1990	2000	2010	2020
Catholic	47.3	49.6	50.9	51.9	47.3	49.4	50.1	50.4
Protestant	51.1	48.4	45.8	43.1	51.1	49.0	48.2	47.8
Other	1.6	2.0	3.3	5.0	1.6	1.7	1.7	1.8
German-speaking	74.1	73.9	73.9	73.9	74.1	73.9	74.0	74.0
French-speaking	21.4	21.5	21.6	21.6	21.4	21.5	21.5	21.5
Italian-speaking	4.1	4.1	4.0	3.9	4.1	4.1	4.0	4.0
Romansch-speaking	0.4	0.5	0.5	0.6	0.4	0.5	0.5	0.5
German-speaking Catholic	31.9	33.6	34.6	35.4	31.9	33.4	33.9	34.2
German-speaking Protestant	40.9	38.8	36.9	34.9	40.9	39.3	38.8	38.6
French-speaking Catholic	11.4	12.0	12.3	12.6	11.4	11.9	12.2	12.3
French-speaking Protestant	9.6	9.0	8.4	7.8	9.6	9.1	8.9	8.7
Italian-speaking Catholic	3.6	3.7	3.6	3.6	3.6	3.7	3.6	3.6
Others	2.4	2.9	4.1	5.8	2.4	2.5	2.6	2.6
Sub-total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total (1)	5 623	5 757	5 810	5 894	5 623	5 757	5 810	5 894
	500	400	600	300	500	400	600	300

Graphs 13a-f show projected population change (1995 = 100) and the ratio of population aged 65 and over to the number aged 20 to 64 as represented by the 'continuity of trends' scenario. There are clear signs of the emergence of the 'other religions' group which, according to the scenario, is set to increase threefold in the next 25 years. The ratio of persons aged 65 and over to the working age aged 20-64 will rise much more significantly among Protestants than Catholics, while the 'other religions' category will stay comparatively young. The ageing of the population will be more marked in Ticino than in other regions and much less so for Catholic German- and French-speakers than for other groups.



7. Conclusions

The major survey conducted in the 1980s by Princeton University on the decline of fertility in Europe has shown that, apart from socio-economic factors, cultural factors, in particular language and religion, were important in determining the causes and pace of fertility decline in the states and provinces of Europe (Coal & Watching (Des), 1986). In 1870, between the fertility transition, Switzerland, like Belgium, Germany and France, was one of the demographically heterogeneous countries in western Europe, with the linguistic and religious diversity of the country being reflected in the marriage and fertility patterns (Watkins, 1991). The fertility rate in the Calvinistic city of Geneva was one of the lowest in Europe, with the exception of France, because of a low marriage rate and low birth rate within marriage. In the Catholic cantons of the more backward parts of the country, by contrast, (Uri, Schwyz and Unterwald), marriage was virtually universal and fertility rates were close to 'natural fertility' levels. The drop in fertility began relatively in the Protestant regions of the Swiss Confederation, namely before 1880, but was delayed until much later in most Catholic regions, which were less urbanised with a poorer educated population (van de Walle, 1988).

Together with socio-economic factors, religious and linguistic differences continued to play an important role during the second decline in fertility between 1960 and 1980. The fall started after 1964 in the more urban regions (cantons of Geneva, Vaud, Neuchâtel Ticino, Basel-Urban followed by Zürich) but only spread later to Catholic and outlying regions and did not appear in Appenzell Inner-Rhodes, Uri and Unterwald until 1980 (Fux, 1994).

This study has helped to show more clearly the impact of these trends on the numerical strength and composition of the different religious and linguistic groups. Since the religious and linguistic boundaries do not coincide, except in Italian-speaking Switzerland, where the population is almost entirely Catholic, we have also been able to examine the reciprocal effects of religious and linguistic affiliation. It should be noted in this context that Swiss demographic trends do not just depend on natural change in the population, but are also heavily influenced by both inter-regional and international migration. In addition, an important factor influencing the growth of certain groups has been the acquisition of Swiss nationality.

Changing demographic trends have led to a fundamental shift in the relative numerical strength of the two major religious groups, Catholic and Protestant. Instead of a clear Protestant majority as at the start of demographic transition, we now have a situation where the two major religions can, at best, claim to have a relative majority. In addition, there has been a significant increase in the number of mixed marriages. This development is not only due to the fact that the fertility transition occurred much earlier among Protestants than Catholics but also reflects the fact that it has been mainly Catholics who have migrated to Switzerland and have subsequently been naturalised, with very few Protestant immigrants settling the country. With the prevailing freedom of worship and freedom of residence, the delay in the fertility transition in the Catholic population, together with migration of foreign workers, has led to a gradual shift in the relative size of the religious groups and is in the process of producing a new majority.

Since the 1980s, however, the differences in mortality and fertility pattern between the two major religious groups have largely disappeared and future developments will be determined mainly by the demographic structures now in place, which are essentially a legacy from the past. The Protestant population is now a population which has aged considerably; and for the past 20 years its balance of births and deaths has been negative. By contrast, the number of Catholics may be expected to increase as a result of a much younger age structure.

The shift in majority is unlikely to undermine the 'religious peace' currently reigning in the Swiss Confederation, given that secularisation and religious freedom have greatly reduced the influence of the churches and organised religion on society and political life in general. It is also a trend that has weakened the cultural and socio-economic divide that has traditionally separated the Catholic and Protestant communities since the founding of the Confederation to such an extent that it no longer exists. This observation is borne out by the convergence of Catholic and Protestant demographic trends.

Other changes occurring over the past 20 years that will have a significant impact in the medium and long term may be noted:

- there has been a rapid increase in the number of people stating that they have no religious affiliation, particularly in the French-speaking regions and the cities. There are obvious differences between 'practising' and 'non-practising' members of the population in terms of lifestyle, values and demographic patterns;
- as a result of changes in migration patterns, new religious groups, mainly Orthodox and Moslem, have appeared in Switzerland. The appearance of new religious groups is a serious challenge for the religious establishment in Switzerland, an establishment which historically has been closely identified with geographical areas and has involved close collaboration between the traditional churches and the state. These new groups not only display higher fertility rates but their growth rates through migration also exceed those in the Catholic and Protestant populations.

Otherwise, the relative numerical strength of the four linguistic groups has remained remarkably stable during the past 150 years. This is certainly attributable to the principle of territoriality (see section 1.3), which acts as a counterweight to freedom of language and has helped to keep the "linguistic peace" and maintain the linguistic boundaries, although this has not prevented a steady decline in the number of Romansch-speakers. Being the smallest language group and having no political or economic centre, they have been ill-placed to resist the migration and assimilation pressures posed by German-speaking areas.

Although the linguistic groups have been relatively stable there have nevertheless been many and various population changes. Like northern Italy, the Italian-speaking region of Ticino has had an extremely low fertility rate for the past 30 years, and the same may be observed in the Protestant population, both German- and French-speaking. The total fertility rate was noticeably lower in French- than German-speaking areas for both religious groups until the mid-80s, although the lower rates of natural increase in the French- and Italian-speaking regions have been offset by migration gain. The Romance-language regions have also had the benefit of a higher than average share of north-south migration of German-speakers together with international migration, and have assimilated relatively large numbers of immigrants speaking other languages as well.

The Romansch-speaking regions are also interesting demographically in that the fertility transition there is not yet complete and marriage is still virtually universal; as a consequence, the Romansch population has a young age structure. But offsetting this has been the emigration of young adults for reasons of study and to find employment, and this has led to a noticeable reduction in the population of economically active age. In the most recent period since 1989, however, the migration balance has been positive thus bringing to an end a long period of net outflow.

The population of all the linguistic regions, with the exception of the Romansch regions, has aged considerably. This is much more clearly the case in French- and Italian-speaking areas than in German Switzerland. In future the evolution of the Italian-speaking and Romansch-speaking minorities is likely to diverge; whereas the number of Italian-speakers is expected to decline by about 6% over the next 25 years because of an excess of deaths over births, the Romansch population may well record an above average increase for the first time since the creation of the federal state, always providing that Romansch can hold its own against German and that there is no further emigration. During the first quarter of the next century, the relative sizes of the German- and French-speaking communities should remain more or less stable, even if the absolute size of the two groups declines slightly.

As with the religious groups, the real winners in the decades to come will in fact be languages other than the national languages. Not only are the four regions becoming linguistically more heterogeneous because of migration but the globalisation of the economy and of communications is leading to the increasing use of English as a "lingua franca". The principle of territoriality will find itself up against new forms of multilingualism and linguistic multiculturalism, and this will necessitate non-territorial measures for the promotion and protection of languages.

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