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Demographic statistics: Definitions and methods of collection in 31 European Countries

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3

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Population and social conditions **3/2003/E/n° 25**

DEMOGRAPHIC STATISTICS:

DEFINITIONS AND METHODS OF

COLLECTION IN 31 EUROPEAN

COUNTRIES

This study was commissioned by Eurostat from Statistics Netherlands (CBS) and with the assistance from the National Statistical Institutes of each of the 31 countries concerned.

The views expressed in this document are the author's and do not necessarily reflect the opinion of the European Commission

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INTRODUCTION

This Eurostat publication entitled “Demographic statistics: Definitions and methods of collection in 31 European countries” aims to describe and compare the systems used to collect demographic statistics, definitions of main vital events and the methods used to compute demographic indicators in 31 European countries. It has been compiled from information supplied by the national statistical institutes and is partly based on a 1994 publication entitled “Definitions and methods of collecting demographic statistics in the European Community countries”.

The publication comprises five chapters.

- Chapter 1 describes the general issues and net international migration.
- Chapter 2 gives information on statistics on births, abortions and fertility indicators.
- Chapter 3 describes death statistics and mortality indicators.
- Chapter 4 describes statistics on marriages, marriage indicators and types of living arrangements other than marriage.
- Chapter 5 describes divorce statistics.

Each chapter contains several tables — as complete as it has been possible to make them — designed to make comparisons between countries easier. The information in these tables has to some extent been standardised. This unfortunately results in a certain uniformity and impoverishment of the information initially available for the countries.

Facsimiles of registration forms (certificates of births, deaths and marriages) for each country have been added at the end of this publication, insofar as they have been provided by the country concerned. A glossary of the most frequently used demographic terms is also given.

This study was commissioned by Eurostat from Statistics Netherlands (CBS) and with the assistance from the National Statistical Institutes of each of the 31 countries concerned.

Eurostat wishes to thank the officials of the national statistical offices, without whose collaboration this publication would not have been possible.

Table 1.1 Ministry under which the National Statistical Institute operates

A	Federal Institution under Public Law (independent)
B	Ministry of Economy
BG	State Agency to the Council of Ministers
CY	Ministry of Finance
CZ	State Statistical Service
DK	Ministry of Economic and Business Affairs
EE	Ministry of Finance (independent)
FIN	Ministry of Finance
F	Ministry of Economics and Finance
D	Ministry of Interior
EL	Ministry of Economics and Finance
HU	Government
IS	NSI is Ministry itself
IRL	NSI is Ministry itself
I	Presidency of the Ministry Council
LV	Ministry of Economy
LI	Ministry of Economy
LT	Government
L	Ministry of Economy
MT	Ministry of Economic Services
NL	Ministry of Economic Affairs
NO	Independent body, reporting to Ministry of Finance
PL	Council of ministers
P	Council of Ministers Presidency
RO	Ministry of Development and Prognosis
SK	On the level of Ministries
SI	Government Service
E	Ministry of Economy
S	Ministry of Justice
CH	Ministry of Interior
UK (E+W)	HM Treasury
UK (NI)	Northern Ireland Parliament, department of Finance and Personnel

1 General issues and international migration

1.1 General issues

1.1.1 Position of the national statistical institute

In 15 countries (Belgium, Cyprus, Denmark, Estonia, Finland, France, Greece, Latvia, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Spain and United Kingdom) the national statistical institute operates under the Ministry of Finance or the Ministry of Economic Affairs (see Table 1.1). In Germany and Switzerland it operates under the Ministry of the Interior, in Romania under the Ministry of Development and Prognosis and in Sweden under the Ministry of Justice. In 12 countries (Austria, Bulgaria, Czech Republic, Hungary, Iceland, Ireland, Italy, Lithuania, Poland, Portugal, Slovak Republic and Slovenia), the national statistical institute does not operate under a ministry; its tasks and projects are either decided upon directly by the council of ministers or the prime minister, or it is a ministry itself.

Table 1.2 Civil registration and marital status

	Introduction of civil registration	Civil registration is secularised	Religious acts have an effect on marital status	
				If yes, which?
A	1784	Yes	No	
B	1804	Yes	No	
BG	1881	Yes	No	
CY	< 1881 [1)]	Yes	Yes	Religious marriage
CZ	1918	Yes	No	
DK	1646	Yes	Yes	Religious marriage
EE	1926	Yes	Yes	Religious marriage
FIN	1749	Yes	Yes	Religious marriage
F	1791	Yes	No	
D	1875	Yes	No	
EL	1931	Yes	Yes	Religious marriage
HU	1895	Yes	No	
IS	1734	Yes	No	
IRL	1845	Yes	Yes	Religious marriage
I	1870	Yes	Yes	Religious marriage
LV	1918	Yes	Yes	Religious marriage
LI	1974	Yes	No	
LT	1940	Yes	Yes	Religious marriage
L	1778	Yes	No	
MT	1863	Yes	No	
NL	1811	Yes	No	
NO	1801	Yes	Yes	Religious marriage
PL	1945-46	Yes	Yes	Religious marriage
P	1911	Yes	No	
RO	1950	Yes	No	
SK	1894	Yes	Yes	Religious marriage
SI	1819	Yes	No	
E	1870	Yes	Yes	Religious marriage
S	1686	Yes	Yes	Religious marriage
CH	1876	Yes	No	
UK (E+W)	1837	Yes	Yes	Religious marriage
UK (NI)	1845	Yes	Yes	Religious marriage
UK (SC)	1854	Yes	Yes	Religious marriage

[1)] Information on marital status was collected for the first time in the population census of 1881.

1.1.2 Civil registration

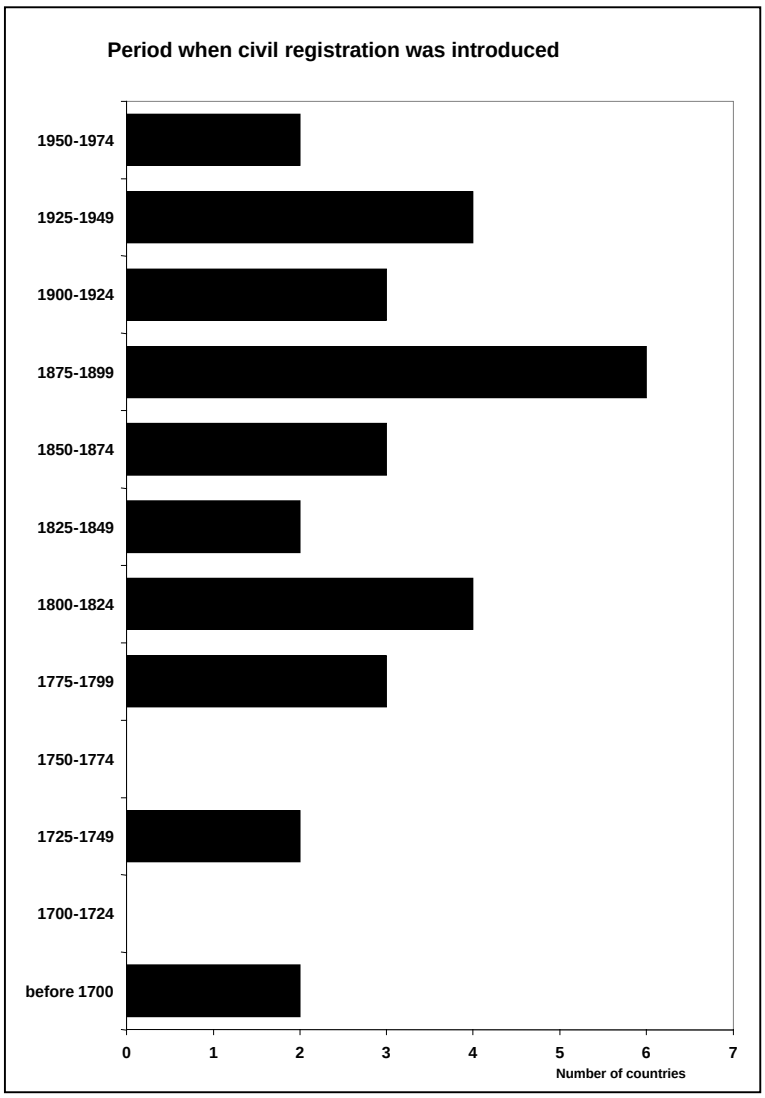
All 31 countries have systems of civil registration, but the northern countries were the first to introduce it. Denmark was the very first, in 1646, followed by Sweden in 1686 (see Table 1.2). Almost a century later it was introduced in two other countries in northern Europe: Iceland (1734) and Finland (1749). It was not until the last quarter of the 18th century that another three countries adopted it: Luxembourg in 1778, Austria in 1784 and France in 1791.

During the 19th century civil registration was introduced in 15 countries. The remaining nine countries followed in the 20th century. In three countries it was only after the Second World War that civil registration was introduced: Poland (1945-1946), Romania (1950) and Liechtenstein (1974).

Some countries indicate that statistics on changes in marital status only became available some time after the introduction of civil registration. The laws and practices with regard to civil registration have sometimes undergone changes, such as the introduction of divorce or the introduction of marriages between persons of the same sex.

In all 31 countries civil registration is secularised, but this does not mean that churches play no role in it. In 15 countries (Cyprus, Denmark, Estonia, Finland, Greece, Ireland, Italy, Latvia, Lithuania, Norway, Poland, Slovak Republic, Spain, Sweden and United Kingdom) a religious marriage has a direct effect on marital status in the sense that religious marriages are also recognised by the state as civil marriages.

In many countries the local registrar deals with the civil registration. In the northern countries Denmark, Finland, Iceland and Sweden, church authorities are also responsible for it. In countries where religious marriages are recognised by the state, registration is also carried out by church authorities.



1.1.3 Official documents and registrations

All 31 countries draw up a birth certificate when a child is born, a death certificate when a person dies and a marriage certificate when people marry (see Table 1.3). This is an important finding because, generally speaking, in all 31 countries these certificates and registrations form a basis for statistics on the births, deaths and marriages that occur within each separate country. It is acknowledged that not all residents marry, give birth or die within the boundaries of their country. This is why compiling statistics on births, deaths and marriages cannot rely on certificate-based information alone.

In countries with a population register, where demographic statistics are based on population-register information, the corresponding work is carried out by the register authorities when updating the register. Thus, births, deaths, marriages and divorces that apply to residents are updated in the register, while those that apply to non-residents are not. This means that national statistical institutes that receive information on demographic events from the population-register authorities need not filter information on residents from information on non-residents. In countries where demographic statistics are heavily based on information from the registrar, national statistical institutes must do much of this work themselves. For more information on this topic, see Chapters 2 (Births), 3 (Deaths) and 4 (Marriages).

Some countries have official documents and certificates for events other than births, deaths and marriages, as follows:

- For recognition of a child, a certificate is drawn up in France, Slovenia and Switzerland.
- In the case of a stillborn child, a certificate is drawn in Austria, France, and Ireland.
- In Belgium an official document is drawn up when a person acquires Belgian citizenship.
- Netherlands and Norway have introduced a certificate for registered partnerships, primarily or exclusively intended for same-sex couples.
- Germany and Portugal have separate official documents for divorces.

In most countries, official documents relating to birth, death, marriage and other events are preserved by the local or national registrar. In Denmark they are preserved by the church, in Malta by the national government, in Norway by the population-register authorities and in Poland by the regional statistical offices. In Lithuania copies of such documents are kept by Statistics Lithuania.

Most countries require these official documents to be kept at national level as well. For this purpose Ireland has a national registrar, while other countries (Cyprus, Czech Republic, Estonia) have such documents preserved by the Ministry of the Interior. Austria, Bulgaria, Germany, Greece, Luxembourg, Netherlands, Romania, Slovenia, Sweden and Switzerland are the only countries where official documents are preserved exclusively by local authorities.

Table 1.3 Official documents and registrations in use

	Birth registration	Birth doc/certif.	Death registration	Death doc/certif.	Marriage registration	Marriage doc/certif.	Court decision (divorce)
A	x	x	x	x	x	x	x
B	x	x	x	x	x	x	x
BG	x	x	x	x	x	x	x
CY	x	x	x	x		x	x
CZ	x	x	x	x	x	x	x
DK		x		x		x	
EE	x	x	x	x	x	x	x
FIN	x	x	x	x	x	x	x
F		x		x		x	
D		x		x		x	x
EL		x		x		x	
HU	x	x	x	x	x	x	x
IS	x	x	x	x	x	x	x
IRL		x		x		x	x
I	x	x	x	x	x	x	x
LV	x	x	x	x	x	x	x
LI		x		x		x	x
LT	x	x	x	x	x	x	x
L	x	x	x	x	x	x	x
MT		x		x		x	
NL	x	x	x	x	x	x	x
NO		x		x		x	x
PL		x		x		x	x
P	x	x	x	x	x	x	x
RO		x		x		x	x
SK		x		x		x	x
SI		x		x		x	x
E	x	x	x	x	x	x	
S		x		x		x	
CH	x	x	x	x	x	x	x
UK	x	x	x	x	x	x	

1.1.4 Estimation of the size of the population

Almost all European countries aim to measure the population on the basis of the *de jure* population concept, under which all persons who have residence in the country are meant to be covered. People who habitually live in a country are included in the population figures, even if they are temporarily abroad. On the other hand, people from abroad who are temporarily in the country are not included.

The *de jure* population concept should be distinguished from the *de facto* population concept, which includes all people who are actually present in the country at a given moment in time, regardless of whether they have residence there or not. The latter population concept includes, for instance, all non-residents who are on holiday in the country, and discounts all residents who are on holiday abroad.

Countries that produce their population statistics from population-register information automatically seem to follow the *de jure* population concept. Indeed, it must at least be assumed that population registers include only residents who habitually live in the country. All countries that carry out traditional population censuses follow the United Nations regulations, which recommend counting on the basis of the *de jure* population concept.

In practice, countries may encounter problems of one kind or another when attempting to accurately determine the population size according to the *de jure* concept. Such problems may arise, for instance, from not being able to accurately determine the births and deaths within the merely resident population. As can be seen from Chapters 2 and 3 and Tables 2.4 and 3.4 respectively, births and deaths of residents abroad are not always taken into account, while in a number of cases births and deaths to non-residents in the country itself are included in statistics.

The above applies partly or fully to Austria, Cyprus, France, Germany, Greece, Hungary, Ireland, Italy, Liechtenstein, Poland, Portugal, Spain and United Kingdom. This does not mean that these countries apply the *de facto* population concept, but certain aspects of that concept do creep in, at least when updating the population size via the component method.

In 13 of the countries under study, determination of the population size is based on population-register data (see Table 1.4). In some countries, population registers have a long history, while in others population registers are quite new. In Austria such registers were introduced very recently, i.e. on 1 January 2002.

The countries that do not base their population figures on register-data use the population census as their main source. A population census is usually held every ten years, in accordance with United Nations and Eurostat regulations. Data on the intercensal period are updated when new census data become available. Only six countries did not carry out a population census in 1999-2002:

- Denmark and the Netherlands produced their latest census over 30 years ago.
- The most recent population census in Iceland was held in 1981.
- Germany, Sweden and Malta carried out their most recent population census in 1987, in 1990 and in 1995 respectively.

Table 1.4 Population characteristics

	Date of most recent population census	Sources for estimating population			Reference date of population estimates			Methods for estimating population	
		Population register	Census-based	Other	01.01	31.12	Midyear	Component method	Population registers
A	15.05.2001	x[1]			x		x		x
B	01.10.2001	x			x				x
BG	01.03.2001		x			x		x	
CY	01.10.2001		x[2]			x	x	x	
CZ	01.03.2001		x		x	x	x	x	
DK	09.11.1970	x			x		x		x
EE	31.03.2000		x		x			x	
FIN	31.12.2000	x				x			x
F	08.03.1999		x		x		x	x	
D	25.05.1987		x		x		x	x	
EL	18.03.2001		x		x		x	x	
HU	01.02.2001		x		x		x	x	
IS	31.01.1981	x				x	x		x
IRL	28.04.2002		x[3]				x[4]	x	
I	21.10.2001		x		x			x	
LV	31.03.2000	x			x				x[5]
LI	05.12.2000	x				x	x		x
LT	06.04.2001	x	x		x		x	x	
L	15.02.2001		x		x				x
MT	16.11.1995		x			x		x	
NL	28.02.1971	x			x		x		x
NO	03.11.2001	x			x				x
PL	21-5 - 8-6-2002		x			x	x	x	
P	12.03.2001		x			x	x	x	
RO	18-27.03.2002		x		x		x	x	
SK	26.05.2001		x			x	x	x	
SI	01-15.04.2002	x				x	x		x
E	01.11.2001		x[6]	x[6]		x	x	x	
S	01.11.1990	x			x		x		x
CH	05.12.2000	x	x			x	x	x	
UK	29.04.2001		x				x	x	

[1] Since 1.1.2002.
[2] Migration data from various sources (Passenger Survey, Aliens Register).
[3] Quarterly National Household Survey.
[4] 15th of April.
[5] Up to 1999 the component method was used. Data from the administrative Residents' Register have been used since the 2000 population census.
[6] Based on population projections.

The countries where the population is based on population-register data derive their annual figures on population size directly from the population registers. In the other countries this method cannot be applied. Those countries apply some variant of the component method. This method is described in the box.

The component method is used to determine the population size, given the size of the population at a previous moment and the demographic events that influence the population size. Given the size of the population on a given date, usually 1 January of a calendar year *t*, the numbers of births and immigrants during the calendar year *t* are added, and the number of deaths and emigrants during that year are subtracted. By doing so, the number of inhabitants on 1 January of calendar year *t+1* is obtained. As a rule, the data collected in the population census are the basis for this method.

Application of the component method requires data on births, deaths and external migration. Almost all countries have good or even excellent statistics on births and deaths, but not all countries are able to produce reliable data on international migration. Births are discussed in Chapter 2; deaths in Chapter 3 and international migration in Chapter 1.2.

In Spain the population figures are derived by a projection method that is based on the latest population census figures. New projections are made if the difference between the projected and the observed data on births, deaths and international migration is considered to be too big.

For all countries except Ireland and the United Kingdom, 1 January or 31 December is the reference date on which the population is estimated. The difference between these two dates is practically nil: at the national level, the population on 1 January of the calendar year *t* is usually equal to the population on 31 December of the calendar year *t-1*. In Ireland the reference date is 15 April, in the United Kingdom it is 30 June.

It should be noted that many countries produce population figures on other dates within the calendar year. For instance, monthly data are produced by Austria, Germany, Netherlands and Sweden, while Denmark, Poland, Slovak Republic and Slovenia indicate that they produce quarterly population figures. In general, these figures are less detailed than those with reference date 1 January or 31 December.

1.2 International migration

1.2.1 International migration estimation methods

The quality and completeness of international migration statistics vary widely between the European countries. A number of countries (Bulgaria, Cyprus, Czech Republic, France, Greece, Ireland, Malta, Portugal, Slovak Republic, Slovenia, Spain and United Kingdom) do not have a registration system covering international migration. Most of these countries make estimates of immigration, emigration or net international migration by combining data from various sources, or rely on sample survey data.

In countries where a registration system exists, the quality and completeness of the system depend heavily on the willingness of the public to supply the competent authorities promptly with correct and timely information about their arrival or their departure. Arrivals that are not registered (including persons who do not leave the country when their residence permit is no longer valid) lead to underestimation of the population size, while departures that are not registered lead to an overestimation of the population size. In general, cases of the latter are more numerous than the former.

It should be added that in comparison with births and deaths, migration registration is more difficult and less complete as a result of intentional or unintentional violations of the regulations. Intentional violations may occur, for instance, if a person moves to a country where it is impossible for him or her to obtain a residence permit for that country. Examples of unintentional violations are changes in the intentions of persons moving to a different country, such as staying in the country for a longer period than originally planned, for whatever reason.

A similar problem may affect the quality of estimates based on sample survey data. When interviewed, individuals may only intend to stay in a country for a short time, and will be counted as visitors. A change in circumstances or intention may mean that they stay for a longer period and should really be counted as migrants.

International migration is registered in 19 of the 31 countries under study (see Table 1.5). The other 12 countries apply various methods in order to obtain data on international migration.

In Bulgaria international migration is estimated by combining various administrative and statistical sources that register population movements from and to the country for various population categories. Work is under way to set up an information system that meets the requirements of a complete and accurate estimation of international migration in Bulgaria.

Cyprus collects information about immigration from the Passenger Survey, which is carried out at the points of arrival (seaports, airports). Statistics on emigrants are obtained by combining sources: expiry of residence permits for foreigners (Aliens Register) and the Passenger Survey carried out at the points of departure.

The Czech Republic obtains data on immigration and emigration of foreigners from the registers of the Immigration Police, while data on the external migration of Czech citizens are collected from the Residents' Registration Office.

France applies a model based on the most recent population census. The net migration during the intercensal period is estimated by comparing the population sizes at the time of two censuses and natural increase between those two censuses. A figure for net international migrants is derived from these data and is used to estimate the size of the population in years to come. As soon as data from a new population census become available, net international migration and population size are adapted to the new data.

In Greece there are no data on emigration. The figure for immigration is regarded as net international migration.

In Ireland the principal source of information for the estimation of gross migration flows is the Quarterly National Household Survey (formerly the annual Labour Force Survey). But other migration indicators are also used:

- the continuous Country of Residence Inquiry of passengers, conducted at airports and seaports;
- the Register of Electors;
- the Child Benefit Scheme;
- the number of visas granted;
- the number of work permits issued/renewed;
- the number of asylum applications.

In Malta emigration is practically nil. The only source available for emigration is for those emigrating to the United Kingdom, and these data come from the British High Commission in Malta. Data on returning emigrants and foreign settlers are derived from monthly returns from the Controller of Customs, since such prospective settlers have to declare their personal effects. Further data on immigration come from the registration of work-permit and residence-permit holders (net balance at the end of each year).

In Portugal the migration component is estimated from a set of key sources. The immigration estimate is derived from the database of the Immigration and Border Department (SEF) within the Ministry of the Interior, from the population-census data on previous residence, from the Labour Force Survey, and from the data available in statistical institutes on immigrants' countries of origin (Portuguese or foreign). The SEF also provides data on the total foreign population (the "stock" of foreigners) legally resident in the country. For the estimation of emigration, the main sources used are the out-migration survey carried out annually close to the Labour Force Survey and data from the statistical institutes of the main countries of destination for Portuguese emigration. Every ten years, when new census data become available, the estimated migration data are adjusted accordingly.

In the Slovak Republic international migration data on foreigners are obtained from the Foreigner and Border Police. For Slovak nationals, registration by civic authorities, local authorities and police authorities (in Bratislava and Kosice) are sources for the estimation of international migration.

Table 1.5 International migration

	International migration is registered	Model, based on most recent census	Combining various sources	Other
A	x			
B	x			
BG			x	
CY			For emigrants only	Immigrants: Passenger Survey
CZ			x	Foreigners: Immigration Police; Czech nationals: Residents' Registration Office
DK	x			
EE	x			
FIN	x			
F		x		
D	x			
EL		x	x	Data on emigrants aer not available; the number of immigrants is considered as net migration
HU	x			
IS	x			
IRL			x	
I	x			
LV	x			
LI	x			
LT	x			
L	x			
MT			x	
NL	x			
NO	x			
PL	x			
P			x	
RO	x			
SK			x	Foreigners: Foreigner and Boarder Police. Slovak nationals: registration through civic authorities, local authorities, and in Bratislava and Košice through the Police authorities
SI		x	x	Immigration: registered. Emigration of nationals: registered. Emigration of foreigners: estimates from resident population data
E			x	
S	x			
CH	x			
UK			x	

In Slovenia data on immigration are complete for both Slovenian residents and foreigners. Data on emigration include Slovenian residents who emigrate for a period of at least three months and who give notice of their departure to the relevant administrative unit. These data do not include emigration of Slovenian citizens who did not give notice of their departure. Data on emigrated foreigners are estimated on the basis of the numbers of foreigners at the beginning and the end of the calendar year and of births, deaths and immigration of foreigners. Data on acquisition of Slovenian citizenship are also taken into account.

In Spain figures for international migration are obtained from various sources. For immigrants with Spanish nationality, the Change of Residence Statistics (CRS) are the most adequate source. Information about immigration of foreigners is derived from both the CRS and the Foreigners Resident in Spain Survey, which is carried out by the Police General Management and is based on the residence permits and cards issued to legally registered foreigners. Emigration figures (very low in the case of Spain) are based on the population register.

In the United Kingdom three main sources of data on international migration are available:

- the International Passenger Survey (IPS), which is a sample survey of passengers arriving at, and departing from, the main United Kingdom air and sea ports and the Channel Tunnel;
- Home Office data on applications for asylum and applications by other "visitor-switchers", i.e. people who originally entered the United Kingdom as short-term visitors but were subsequently granted an extension of stay for a year or longer. There can be a number of reasons for switching from visitor to resident status other than seeking asylum, e.g. for study purposes or as a result of marriage;
- estimates of migration between the United Kingdom and the Irish Republic, using information from the Irish Labour Force Survey and the Country of Residence Survey, as agreed between Ireland's Central Statistical Office and the UK Office for National Statistics.

Table 1.6 Variables registered in the statistics on administrative corrections [1)]

	Not applicable	Age	Sex	Nationality	Place of residence	Marital status	Country of birth
A	x						
B		x	x	x	x	x	x
BG	x						
CY	x						
CZ	x						
DK	x						
EE		x	x	x	x	x	x
FIN		x	x	x	x	x	x
F	x						
D		x	x	x	x	x	
EL	x						
HU	x						
IS	x						
IRL	x						
I		x	x	x	x	x	x
LV	x						
LI	x						
LT	x						
L		x	x	x	x	x	
MT	x						
NL		x	x	x	x	x	x
NO	x						
PL	x						
P	x						
RO	x						
SK	x						
SI	x						
E	x						
S	x						
CH		x	x	x	x		
UK	x						

[1)] Administrative corrections are arrivals and departures that cannot be accounted for as birth, death, immigration or emigration. For instance: someone who has left the country at an unspecified date and who did not notify the local authorities of his or her leaving the country. Changes in demographic data of residents who remain a member of the population (for instance: a correction of birth date or a correction of address inside the country) are not classified as administrative corrections.

1.2.2 Administrative corrections

Countries where international migration is registered collect data on this component from their registration. However, complete and timely registration of all migrants is not always possible in practice. In addition to births, deaths and international migration, a number of countries therefore distinguish a fourth component of population change, i.e. administrative corrections (see Table 1.6). These are arrivals and departures that cannot be accounted for as births, deaths, immigration or emigration, e.g. in the case of people who left the country at an unspecified date and did not notify the local authorities of their departure. Changes in demographic data on residents that do not affect the size of the population (e.g. correction of a birth date or an address inside the country) are not classified as administrative corrections.

Statistics on administrative corrections are produced by Belgium, Estonia, Finland, Germany, Italy, Luxembourg, Netherlands and Switzerland. In most of these countries, these statistics comprise age, sex, marital status, nationality, (former) place of residence and country of birth. The German and Luxembourg statistics do not cover country of birth, while the Swiss statistics cover neither country of birth nor marital status (see Table 1.6).

Table 1.7 Age definition for international migration

	Age completed	Age reached during the calendar year	Age not available
A	x		
B		x	
BG			x
CY			x
CZ	x		
DK	x	x	
EE	x	x	
FIN	x	x	
F			x
D		x	
EL			x
HU	x	x	
IS	x		
IRL	x		
I	x		
LV		x	
LI			x
LT	x		
L	x	x	
MT			x
NL	x	x	
NO	x		
PL	x		
P			x
RO	x		
SK	x	x	
SI	x		
E	x		
S	x	x	
CH	x		
UK	x		

1.2.3 Age definition

Countries that include age in their international migration statistics usually measure age as the number of completed years at the migration date (see Table 1.7). Only three countries (Belgium, Germany and Latvia) exclusively use the age reached during the calendar year of migration. In a number of countries (Denmark, Estonia, Finland, Hungary, Luxembourg, Netherlands, Slovak Republic and Sweden), both age definitions are used.

2 Births

2.1 The declaration of a birth

As pointed out in section 1.2, births are registered in all the 31 countries under study. This means that all children born within the territories of the 31 countries are, in principle, registered as being born.

2.1.1 Persons who can make the declaration

There are, however, differences in the way the countries have organised the registration and in the way the information needed for this registration is collected. Countries can be divided into two groups, as set out below.

The first group consists of the countries where the place of birth (at home, in a hospital, elsewhere) determines who is entitled to make the declaration, while the second consists of countries where the place of birth plays no role in who can declare the birth. In the first group (consisting of Czech Republic, Germany, Greece, Hungary, Iceland, Slovenia and Sweden), children born in a hospital or other health-care institution must be declared by that institution. If the child is born outside a hospital or health-care institution, the parents or the medical personnel who assisted in the delivery must declare the child. In the Czech Republic and Slovenia, any person who learns of the birth of a child is obliged to declare it if the parents or the medical personnel do not do so themselves.

In the other group of 24 countries, the parents or the doctor or midwife are usually the persons who should declare the birth. In order to ensure that all births are declared, a number of countries (Austria, Belgium, Hungary, Ireland, Netherlands, Norway, Romania, Spain, Switzerland and United Kingdom) require the occupier of the house where the baby was born — or anyone who was present at the delivery or learnt of the birth — to declare the child if no-one else does so.

In Iceland all births are declared by hospitals, irrespective of the place of birth. Here the cooperation of the parents is not needed, since all midwives are employed by maternity hospitals.

2.1.2 Place where the declaration can be made

In most countries the declaration of birth is made at a local (municipal) or district civil registration office. The following countries are, however, exceptions:

- In Denmark births must be declared at the parishes, which pass on the information to the local population register.
- In Norway and Finland births must be declared directly in the population register.
- In Sweden the local tax office serves as a local civil registration office.

In a number of countries, the hospital prepares the declaration that is to be completed at the local civil registration office.

Table 2.1 Time limit for birth declaration

A	1 week
B	15 days
BG	3 days
CY	42 days
CZ	3 days
DK	5 days
EE	1 month
FIN	2 days
F	3 days
D [1)]	1 week
EL	10 days
HU [2)]	1 day
IS	1 week
IRL [3)]	42 days
I	3 to 10 days
LV	1 month
LI	3 days
LT	3 months
L	5 days
MT	5 days
NL	3 days
NO	1 week
PL	2 weeks
P	1 month
RO [4)]	15 days
SK	3 days
SI [1)]	15 days
E	20 days
S	1 day
CH	3 days
UK (E+W) [5)]	42 days
UK (NI) [5)]	42 days
UK (SC)	21 days

[1)] In the event of a stillbirth, the declaration should be made on the following working day.
[2)] When the birth has taken place outside the hospital, the birth should be declared within 8 days.
[3)] The declaration is deemed late after 12 months.
[4)] When the child dies within 15 days after birth, the declaration should be made the day after the child has died.
[5)] It is possible to declare the birth after more than 42 days.

2.1.3 Time limit for birth declaration

The range in how soon a birth declaration must be made varies widely, from (within) 1 day in Hungary and Sweden to 3 months in Lithuania (see Table 2.1). In Hungary the declaration should be made on the following working day if the child is born in a hospital and within 8 days if the child is born outside a hospital. Cyprus, Ireland and United Kingdom require a declaration to be made within 42 days. In Ireland declarations made after 12 months are deemed late. In 13 countries the maximum number of days is more than 7 (= 1 week).

Declaration within three days is required in ten countries: Bulgaria, Czech Republic, Finland, France, Hungary, Liechtenstein, Netherlands, Slovak Republic, Sweden and Switzerland.

In general, a distinction must be made between calendar days and working days. If the requirement is for a declaration to be made within one or two days, this usually refers to working days. Liechtenstein states that it is often not possible in practice to declare births within three days.

2.2 The contents of a birth declaration

The contents of a declaration of birth vary widely between the 31 countries under study (see Table 2.2). In all of the 31 countries, the child's sex and date of birth are registered on the birth certificate. In almost all countries the certificate also gives the child's name, place of birth, mother's age, mother's address and father's age. Birth order, birth weight, multiple of singleton, as well as name and occupation of the mother and the father are also frequently registered.

Most countries register data on the declaration itself, such as declaration number, registration district, register date.

Data on the person who makes the declaration of birth are not widely registered. In 16 countries (Austria, Belgium, Czech Republic, Germany, Ireland, Italy, Latvia, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Switzerland and England and Wales), the declaring person's name is on the declaration. In 11 of these countries that person's address is registered as well. A few countries record further characteristics of the declaring person, such as date of birth (Italy, Latvia, Luxembourg, Norway, Poland and Slovak Republic), place of birth (Italy, Netherlands, Norway, Poland and Slovak Republic) and occupation (Latvia, Switzerland and England and Wales).

Many countries register data on medical assistance at the delivery, type of delivery (spontaneous birth, caesarean section, forceps-delivery, etc.) and/or place of birth. However, 14 countries (Belgium, Czech Republic, Denmark, Germany, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Sweden, Switzerland and United Kingdom) do not register any of these details.

12 countries (Austria, Cyprus, Estonia, Finland, Iceland, Ireland, Latvia, Luxembourg, Norway, Poland, Slovak Republic and Slovenia) register the name of the hospital where the child was born. Pregnancy duration is on the birth declaration in 15 countries.

As mentioned above, details of name, sex, date of birth, place of birth, birth order, birth weight of the newborn child and whether the child is from a multiple or a single birth are registered on the declaration of birth in most countries. Some additional characteristics about the child are mentioned by a smaller number of countries. Legitimacy, born alive or stillborn, multiple or singleton and birth order are frequently registered characteristics. In 14 countries (Austria, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, Greece, Iceland, Latvia, Luxembourg, Norway, Poland, Romania and Slovenia), all four of these characteristics are registered on the birth certificate.

Austria, Bulgaria, Czech Republic, Estonia, Finland, Germany, Iceland, Latvia and Slovak Republic register birth weight and length at birth. In Greece, Ireland, Poland, Romania and Spain, birth weight is included on the declaration of birth, but length at birth is not. Hungary is the only country where length at birth is registered and birth weight is not. The other 16 countries register neither birth weight nor length at birth.

The APGAR score — i.e. the outcome of a test on Activity (muscle tone), Pulse, Grimace (reflex, irritability), Appearance (skin colour) and Respiration) performed one and five minutes after birth) — is included on the declaration of birth in Austria, Estonia, Finland, Hungary and Poland. Finland is the only country where the language of the child is registered. In Finland and Hungary, the language of both parents is included on the declaration of birth, while Estonia and Malta register only the mother's language. Other multilingual countries, such as Belgium and Switzerland, do not register language when a birth is declared.

Declarations of birth usually include data on the parents. Name, age (sometimes: date of birth), place of birth, address, marital status, nationality, education, occupation and date when the previous child was born are frequently registered characteristics. Religion is registered by nine countries: Austria, Cyprus, Finland, Germany, Greece, Iceland, Latvia, Liechtenstein and Norway. Six countries register the parents' socio-economic status: Austria, Estonia, Malta, Poland, Romania and Slovenia. Portugal and Spain are the only countries where data on the grandparents are included on the declaration of birth.

In 14 countries (Austria, Bulgaria, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Ireland, Poland, Slovak Republic, Slovenia, Spain and Northern Ireland), the marriage date is registered on the declaration of birth. Some countries include duration of the marriage (Bulgaria, Czech Republic, Hungary and Northern Ireland) or place of marriage (Austria and France).

The amount of information registered on the declaration of birth varies widely between countries. Generally speaking, eastern European countries tend to register more items than western European countries. Estonia and Latvia register over 40 items on the declaration of birth, while in Denmark and Sweden the number of items is very modest. It should be added that in the latter countries, additional data are taken from the population register.

Table 2.2 Contents of a birth declaration (selected information)

	Declaring person		Delivery			Pregnancy duration	Child				
	Name	Address	Medical assistance	Type [1]	Place [2]		Name	PIN	Sex	Birth date	Birth place [3]
A	x	x	x	x	x	x	x		x	x	x
B	x	x					x		x	x	x
BG			x		x	x	x	x	x	x	x
CY			x		x		x	x	x	x	x
CZ	x					x	x	x	x	x	x
DK [6]								x	x	x	
EE			x	x	x	x	x	x	x	x	x
FIN			x		x	x	x	x	x	x	x
F					x		x		x	x	
D [7]	x						x		x	x	x
EL			x		x	x	x		x	x	x
HU			x		x	x			x	x	x
IS			x	x	x	x			x	x	x
IRL	x	x			x	x	x		x	x	x
I	x	x	x				x		x	x	x
LV	x	x	x	x	x	x	x	x	x	x	x
LI							x		x	x	x
LT					x		x	x	x	x	
L	x						x	x	x	x	
MT							x		x	x	
NL	x						x		x	x	x
NO	x	x				x			x	x	x
PL	x	x	x	x	x	x			x	x	x
P	x	x					x		x	x	x
RO			x		x	x	x	x	x	x	x
SK	x[8]	x[8]				x	x[9]	x	x	x	x[9]
SI					x		x	x	x	x	x
E	x		x		x	x	x		x	x	x
S									x	x	x
CH	x	x					x		x	x	x
UK (E+W)	x	x					x		x	x	x
UK (NI)							x		x	x	x

[1] Spontaneous birth, caesarian, etc.
[2] Hospital, at home, etc.
[3] Municipality or commune where the child was born.
[4] Sometimes date of birth.
[5] Recorded only if the mother of a child is married to its father.
[6] No declarations are used, the indicated data are received from the Central Population Register.
[7] Data on the father is required only if parents are a married couple.
[8] This item is only for the purposes of the Ward Register Office for elaborating the book on births.
[9] Is not subject to statistical processing.
[10] Nationality - both ethnic nationality and citizenship are surveyed.

Table 2.2 Contents of a birth declaration (selected information) - continued

						Mother		Father		
Live or stilbirth	Cause of death	Legitimacy	Nationality	Birth order	Multiple or singleton	Age[4]	Marital status	Age[4]	Marital status	
x		x	x	x	x	x	x	x[5]	x[5]	A
						x		x		B
x	x	x	x	x	x	x		x		BG
x		x		x	x	x		x		CY
x		x		x	x	x	x	x		CZ
						x	x	x		DK [6]
x	x	x	x	x	x	x	x	x	x	EE
x	x	x	x	x	x	x	x	x	x	FIN
		x		x		x		x		F
x			x	x	x	x	x	x	x	D [7]
x	x	x	x	x	x	x		x		EL
x			x	x	x	x	x	x		HU
x		x	x	x	x	x	x	x	x	IS
				x	x	x	x	x		IRL
						x	x	x	x	I
x		x	x	x	x	x	x	x	x	LV
						x		x		LI
x			x	x	x	x	x	x	x	LT
x		x	x	x	x				x	L
						x		x	x	MT
						x		x		NL
x		x	x	x	x	x	x	x	x	NO
x		x		x	x	x	x	x		PL
			x			x	x	x	x	P
x	x	x	x	x	x	x	x	x		RO
x			x[10]	x	x	x	x	x	x[7,9]	SK
x		x	x	x	x	x		x		SI
x	x			x	x	x	x		x	E
										S
					x	x		x		CH
										UK (E+W)
						x		x		UK (NI)

Table 2.3 Definition of a live birth

	WHO definition	Other definition
A	x	
B	x	
BG [1)]		>= 1000 grams and signs of life
CY	x	
CZ [2)]		>= 500 grams and signs of life
DK	x	
EE	x	
FIN	x[3)]	
F	x	
D	x	
EL	x	
HU	x	
IS	x	
IRL	x	
I	x	
LV	x	
LI	x	
LT	x	
L	x	
MT	x	
NL	x	
NO	x	
PL	x	
P	x	
RO	x	
SK	x	
SI	x	
E	x	
S	x	
CH	x	
UK	x	

[1)] In case the child weighs less than 1000 grams, it must live at least 6 days.
[2)] In case the child weighs less than 500 grams, it must live at least 24 hours.
[3)] At least 500 grams and 22 weeks of pregnancy.

2.3 The definition of a live birth

According to the definition drawn up by the World Health Organisation (WHO), a live birth means the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which — after such separation — breathes or shows other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live-born.

In most countries the definition of a live birth matches the WHO definition (see Table 2.3). The most common exception to this definition is that further criteria on birth weight and/or length of gestational period are added (Bulgaria, Czech Republic and Finland).

Table 2.4 Children born abroad and births to non-residents

	Children born abroad included in national birth statistics		Births to non-residents included in national birth statistics	
	Yes	No	Yes	No
A		x		x
B	x			x
BG	x			x
CY	x		x	
CZ	x			x
DK	x			x
EE	x			x[1)]
FIN	x			x
F		x	x	
D		x		x
EL	x		x	
HU	x		x	
IS	x			x
IRL		x	x	
I	x			x[2)]
LV	x			x
LI	x			x
LT	x			x
L	x			x
MT	x			x
NL	x			x
NO	x			x
PL		x		x
P		x	x	
RO	x			x
SK	x			x
SI	x			x
E	x		x	
S	x			x
CH	x			x
UK (E+W)		x	x[3)]	
UK (NI)		x		x
UK (SC)		x	x	

[1)] For 1999 and before, they were included.
[2)] For 1998 and before, they were included.
[3)] They are shown in the category elsewhere.

2.4 Children born abroad

Most of the 31 countries under study include children born abroad to own residents in their national statistics (see Table 2.4). It goes without saying that most countries exclude children born within their territories to non-residents. Usually countries handle this factor in a logical way, i.e. those that include/exclude children born abroad to own residents exclude/include children born within their territories to non-residents. But there are some exceptions.

- Austria, Germany, Poland and Northern Ireland exclude both categories, thus underestimating the number of births.
- Cyprus, Greece, Hungary and Spain include both categories, thus overestimating the number of births.
- France, Ireland, Portugal, England and Wales and Scotland base their birth statistics on the births in their own country, thus excluding the births to residents abroad and including the births to non-residents in their own country. This may lead to over- or underestimation of the number of births. If the number of births to non-residents in these countries is higher than the number of births to residents who are abroad, the number of births will be underestimated. However, if the number of births to non-residents is lower, this will lead to overestimation of the number of births.

Countries can be divided into two main groups as regards the registration of children born abroad to own residents. The first group consists of the countries that take the foreign birth certificate as a basis: Austria, Bulgaria, Denmark, Finland, Germany, Hungary, Iceland, Liechtenstein, Lithuania, Malta, Netherlands, Norway, Romania, Slovenia and Sweden are among these countries. Malta requires the foreign birth certificate to be authenticated. Other countries (Cyprus, Czech Republic, Estonia, France, Greece, Italy, Latvia) require the birth to be declared at an embassy, consulate or other type of office abroad, and draw up a declaration of birth based on the foreign birth certificate. Citizens of the Slovak Republic who give birth to a child outside the Slovak Republic can choose between declaring the child at a Slovakian office abroad, at the Ward Register Office in Bratislava or at the Ward Register Office in the place of residence.

It should be added that the registration of children born abroad is not a simple task, and there is some doubt as to whether such registrations will be complete. Countries that have a population register do not usually register these children unless they come to live there. In the United Kingdom, declaring a child born abroad to a British resident is not compulsory, and in the case of civilian registrations by the British Consuls and High Commissions, a fee is charged for the service.

Table 2.5 Age definition of live births

	Age completed	Age reached during the calendar year
A	x	x
B	x	
BG	x	x
CY	x	
CZ	x	x
DK	x	x
EE	x	x
FIN	x	x
F	x	x
D	x [1)]	x
EL	x	
HU	x	x
IS	x	
IRL	x	x
I	x	x
LV		x
LI	x	
LT	x	x
L	x	
MT	x	
NL	x	x
NO	x	x
PL	x	
P	x	x
RO	x	x
SK	x	x
SI	x	x
E	x	x
S	x	x
CH	x	
UK	x	x

[1)] Since 2000.

2.5 Quality of the registration

Almost all countries consider their registrations of birth as accurate and complete. However, a small number of the countries described their registrations as ´acceptable´ or ´fairly good´.

2.6 Age definition

Almost all countries are able to produce birth data by both age definitions: age reached at 31 December and age in completed years (see Table 2.5). Age in completed years is also referred to as age at last birthday. In Belgium, Cyprus, Greece, Iceland, Liechtenstein, Luxembourg, Malta, Poland and Switzerland, only age at last birthday is applied, while Latvia is the sole country where only age reached at 31 December is registered.

Table 2.6 Abortions

	Abortion legalised		
	No	**Yes**	**Since what date**
A		x	1 January 1975
B		x	3 April 1990 [1)]
BG		x	1 February 1990 [2)]
CY		x	1974 [3)]
CZ		x	30 December 1957
DK		x	1973
EE		x	1955
FIN		x	1970
F		x	1975
D		x	1973 (former GDR), 1976 (former FRG)
EL		x	1987
HU		x	1956
IS		x	22 May 1975
IRL	x		
I		x	May 1978
LV		x	1953
LI	x		
LT		x	23 November 1955
L		x	15 November 1978
MT	x		
NL		x	1984
NO		x	13 June 1975
PL		x	27 April 1956
P	x		
RO		x	1990
SK		x	1950
SI		x	1 July 1977
E		x	1985
S		x	1975
CH		x	1942, new law since 1 October 2002
UK (E+W)		x	27 April 1968
UK (NI)	x		
UK (SC)		x	27 October 1967

[1)] Before 1990 only possible when life of mother was at risk.
[2)] Since 1990 for all women. Before 1990 there were restrictions for women without children or with one child, with the exception of women with a medical testification.
[3)] Revision of the law in 1974 provides for medical termination of pregnancy only under certain conditions.

2.7 Abortions

2.7.1 Introduction

Abortion is legal in almost all of the 31 countries (see Table 2.6). The only exceptions are Ireland, Liechtenstein, Malta, Portugal and Northern Ireland. In most countries abortion laws were passed in the 1970s and 1980s. Switzerland has the oldest abortion law in Europe.

Table 2.7 Abortion regulations

	Upper limit (number of weeks pregnant)	Exceptions possible	Carried out by doctor	Other limitations
A	12 weeks	yes	yes	
B	12 weeks	yes	yes	For pregnancies older than 12 weeks there are limitations
BG	12 weeks	yes	yes	Risk of health, risk of life
CY	24 weeks	no	yes	Rape, risk of life, mental or psychological injury
CZ	13 weeks	yes	yes	For pregnancies older than 12 weeks there are limitations [1)]
DK	13 weeks	yes	yes	
EE	12 weeks	yes	yes	For pregnancies older than 12 weeks there are limitations
FIN	12 weeks	yes	yes	Risk of health, social reasons
F	12 weeks	yes	yes	
D	12 weeks	yes	yes	Risk of health, sexual offence
EL	12 weeks	yes	yes	Rape, incest, seduction of minor, serious foetal abnormalities
HU	12 weeks	yes	yes	Risk of health; pregnancy is result of crime
IS	12 weeks	yes	yes	Social reasons or medical reasons; de facto no restrictions.
IRL	-	-	-	-
I	90 days	yes	yes	Exceptions are allowed if there is risk to life or health
LV	12 weeks	yes	yes	Risk of life
LI	-	-	-	-
LT	12 weeks	yes	yes	Risk of health, risk of life of woman, child will be born with several health risks (< 21 weeks)
L	12 weeks	yes	yes	Physical and psychological health of mother
MT	-	-	-	-
NL	22 weeks	no	yes	Emergency; woman must be given information about other solutions.
NO	12 weeks	yes	yes	For pregnancies older than 12 weeks there are limitations (risk of life/health mother or child)
PL	12 weeks	yes	yes	Pregnancy is result of a crime - below 12 weeks; risk of giving birth to a seriously handicapped child - up to arriving an ability to alone life; risk of health of mother - no limitation
P	-	-	-	-
RO	12 weeks	yes	yes	Medical reasons - de facto no restrictions
SK	12 weeks	yes	yes	There are limitations in case of pregnancies older than 12 weeks, and of a woman under 16. For the latter the agreement of a legal representative, or of a person charged with bringing up of such a woman, is required
SI	10 weeks	yes	yes	For pregnancies over 10 weeks of gestation special procedures and limitations
E		yes	yes	Risk of mother´s health, result of rape, child will be born with severe health risks
S	18 weeks	yes	yes	Untill 22 weeks possible in exceptional cases (life of woman endangered, risk of foetal malformations)
CH	13 weeks	yes	yes	
UK (E+W)	24 weeks	yes	yes	Risk of life, risk of health, risk of health of existing children, child will be born with severe health risks
UK (NI)	-	-	-	-
UK (SC)	24 weeks	yes	yes	Risk of life, risk of health, risk of health of existing children, child will be born with severe health risks

[1)] After 12 weeks of pregnancy abortion is possible only in case when life woman is endangered or if the foetus is severely impaired or not able to stay alive.
- Not applicable.

2.7.2 Circumstances under which abortion is allowed

Abortion laws usually aim at protection of the unborn life, but provide for limitations and regulations as to the termination of the pregnancy. In many countries, the decision is entirely up to the woman during the first few weeks of the pregnancy (see Table 2.7). Pregnancies that last longer than this upper limit can only be terminated under some additional conditions.

Various forms of counselling — under a legal basis in which the decision to end the pregnancy cannot be made by the woman alone — are compulsory in Belgium, Cyprus, France, Germany, Hungary, Netherlands, Poland, Spain, Switzerland and England and Wales. In these countries the request for an abortion is granted under specified conditions, such as health risks, pregnancy resulting from a sexual offence, continuation of the pregnancy involving grave damage to physical or mental health, etc.

Certain legislations require a waiting period after counselling, normally of between three and eight days. This is the case in Belgium, France, Germany, Hungary, the Netherlands and Poland.

In Germany and the Netherlands, the woman must undergo an interview with an advisory board or a physician, who must verify that she has thoroughly considered the pros and cons of continuing the pregnancy. The Dutch law even requires a reflection period of five days.

In most countries abortions are carried out if the pregnancy is below 12 or 13 weeks. Exceptions are usually possible, for instance if there is a risk to life or a severe health risk.

When the woman is a minor, parental consent is needed from the parents in the majority of the countries.

Abortions on non-resident women are not included in most countries' national figures on abortions. In Italy, Latvia, Lithuania, Netherlands, Slovenia, Spain and England and Wales, they are included, but can be distinguished from abortions on residents. In Germany, Hungary and Iceland they cannot be distinguished.

Table 2.8 Contents of registrations of abortion

	Medical form	Made by doctor (hospital)	Information on form							Aggregate data compiled by clinic
			Age	Marital status	Previous live births	Previous abortions	Country of residence	Nationality	Medical data	
A	:	:	:	:	:	:	:	:	:	:
B	x	x	x	x	x		x		x	
BG	x	x	x		x[1)]		x		x	
CY	:	:	:	:	:	:	:	:	:	:
CZ	x	x	x	x	x	x		x	x	
DK [2)]	x	x	x	x						
EE	x	x	x		x				x	
FIN	x	x	x	x	x	x	x	x	x	
F	x	x	x	x	x	x	x	x	x	
D	x	x	x	x	x				x	
EL	x[3)]	x[3)]								
HU		x	x	x	x	x			x	x
IS	x	x	x	x	x				x	
IRL	-	-	-	-	-	-	-	-	-	-
I	x	x	x	x	x	x	x	x	x	
LV	x	x	x				x		x	x
LI	-	-	-	-	-	-	-	-	-	-
LT	x	x	x	x	x	x			x	
L	:	:	:	:	:	:	:	:	:	:
MT	-	-	-	-	-	-	-	-	-	-
NL		x	x				x		x	x
NO	x	x	x	x				x	x	
PL	x	x	x[4)]							x
P	-	-	-	-	-	-	-	-	-	-
RO	x	x	x	x					x	x
SK	x	x	x	x	x	x			x	
SI	x	x	x	x	x	x	x		x	
E	x	x	x	x	x[5)]	x	x		x	
S	x	x	x		x	x	x		x	
CH	:	:	:	:	:	:	:	:	:	:
UK (E+W)	x	x	x	x	x		x		x	
UK (NI)	-	-	-	-	-	-	-	-	-	-
UK (SC)	x	x	x	x	x		x		x	

[1)] Only for free-will abortions.
[2)] Statistics Denmark receives statistics on abortions (not the individual data) from the national Board of health.
[3)] Data provided by the NSI relate only to abortions carried out in national hospitals, and are therefore not representative.
[4)] Since 2003.
[5)] Alive on abortion date.
- Not applicable.
: No registration of abortions.

2.7.3 The contents of a registration of abortion

As with birth certificates, the data on abortions vary between countries (see Table 2.8). Austria, Cyprus, Luxembourg and Switzerland do not have a registration for abortion. In all other countries where abortion is legalised, a medical form needs to be filled in by the hospital where the abortion was carried out or by the doctor who carried it out. Most registrations include age, marital status, number of previous live births and country of residence, as well as medical data. Czech Republic, Finland, France, Hungary, Italy, Lithuania, Slovak Republic, Slovenia, Spain and Sweden register the number of previous abortions, while the woman's nationality is registered by Czech Republic, Finland, France, Italy and Norway.

Table 2.9 Total Fertility Rate (TFR)

	Mother's age		Mother's age		Mothers of other ages		Method for calculating ASFR's	
	Single years	5-year age groups	Lowest	Highest	When they are younger they are assigned to	When they are older they are assigned to	Square [1]	Parallelogram with vertical sides [2]
A	x		10	49	10	49	x	
B	x		15	49	not included	not included	x	
BG	x		15	49	15	49	x	
CY	x		15	49	15	49	x	
CZ	x		15	49	15	49	x	
DK	x		15	49	not included	not included	x	
EE	x	x	15	49	15	49	x	
FIN	x		15	49	15	49	x	
F	x		15	49	not included	not included		x
D	x		15	49	15	49	x[3]	x
EL	x		15	49	15	49	x	
HU		x	15-19	45-49	not included	not included	x	
IS		x	<20	>=45			x	
IRL		x	15-19	45-49	15-19	45-49	x	
I	x		15	49	15	49	x	
LV		x	15-19	45-49	15-19	45-49	x	
LI	-	-	-	-	-	-	-	-
LT	x		15	49	15	49	x	
L	x		15	49	15	49	x	
MT	x		14	49	14	49		x
NL	x		15	49	15	49		x
NO	x		15	49	15	49		x
PL	x		15	49	15	49	x	
P	x		15	49	15	49	x	
RO	x		15	49	15	49		x
SK	x[4]	x	15	49	not included	not included	x	
SI	x		15	49	15	49	x	
E	x		15	49	15	49	x	
S	x		15	49	15	49	x	
CH	x		15	49	15	49	x	
UK	x		15	46	15	46	x	

[1] Square: births in the same year to mothers who had the same age in completed years at the time of birth of their child (mothers of two cohorts).
[2] Parallelogram with vertical sides: births in the same year to mothers who reached the same birthday during the year of birth of their child (mothers of the same cohort).
[3] Since 2000.
[4] Possible to calculate.
- Not applicable.

2.8 Fertility indicators

2.8.1 Total fertility rate (TFR)

All countries except Liechtenstein produce total fertility rates (see Table 2.9). Of these 30 countries, there are five (Hungary, Iceland, Ireland, Latvia and Slovak Republic) that do not make use of fertility rates by single years of age. These five countries compile TFRs from rates by five-year age groups.

In almost all countries, 15 is the youngest age and 49 the highest age distinguished in the TFR. Exceptions are Austria, where 10 is the youngest age, Malta, where the youngest age is 14, and the United Kingdom where 44 is the highest age. For countries that make use of five-year age groups, 15-19 is the youngest age group and 45-49 is the highest.

Births to women who are younger than the youngest age or older than the highest age are usually assigned to those youngest or highest ages. However, in Belgium, Denmark, France, Hungary and Slovak Republic they are not included. Consequently the TFRs for these countries will be slightly underestimated.

As to the calculation method, most countries make use of what is called the square method (see Appendix I). This means that the numerator of the age-specific birth rates includes all females who gave birth to a child during the calendar year under study and whose age when giving birth is measured as the age reached at the most recent birthday. The denominator is the arithmetic mean of the number of women of that age at the beginning of the calendar year and the number of women of that age at the end of it.

Six countries (France, Germany, Malta, Netherlands, Norway and Romania) calculate age-specific fertility rates by using the parallelogram with vertical sides method. In this method, the numerator includes all women who gave birth to a child during the calendar year under study and whose age equals the age at the end of that calendar year. In other words, their age equals the age they reach at the birthday in that calendar year, irrespective of what comes first, the birthday or the birth of the child.

There are no countries that apply the parallelogram with horizontal sides method when calculating age-specific fertility rates.

Table 2.10 Cohort Fertility Rate (CFR)

	No calculation of CFR	Mother's age	Mother's age		Mothers of other ages		Method for calculating ASFR's	
		Single years	Lowest	Highest	When they are younger they are assigned to	When they are older they are assigned to	Parallelogram with vertical sides [1]	Parallelogram with horizontal sides [2]
A	x							
B	x							
BG	x							
CY	x							
CZ		x	15	49	15	49		x
DK	x							
EE	x							
FIN		x	15	49	15	49	x	
F		x	15	49	not included	not included	x	
D		x	15	49	15	49	x	
EL	x							
HU	x							
IS	x							
IRL	x							
I		x	15	49	15	49	x[3]	
LV	x							
LI	x							
LT		x	15	49	15	49		x
L		x	15	49	15	49	x	
MT	x							
NL		x	15	49	15	49	x	
NO		x	15	49			x	
PL		x	12	54	12	54	x	
P	x							
RO		x	15	49	15	49		x
SK	x							
SI	x							
E		x	15	49	15	49		x
S		x	15	49	15	49	x	
CH	x							
UK		x	15	46	15	46	x	

[1] Parallelogram with vertical sides: births in the same year to mothers who reached the same birthday during the year of birth of their child (mothers of the same cohort).
[2] Parallelogram with horizontal sides: births in two consecutive years to mothers of the same cohort who had the same age in completed years in the year of birth of their child.
[3] Estimated from square observations.

2.8.2 Cohort fertility rate (CFR)

Only 13 of the 31 countries calculate cohort fertility rates (CFRs): see Table 2.10. All these 13 countries (Czech Republic, Finland, France, Germany, Lithuania, Luxembourg, Netherlands, Norway, Poland, Romania, Spain, Sweden and United Kingdom) make use of age-specific fertility rates for single ages. All countries distinguish 15 as the youngest age and 49 as the highest, with the exception of the United Kingdom, where 46 is the highest age. Births to women who have not yet reached the age of 15 are assigned to the age 15, while births to women who are 50 or older (UK: 47 or older) are included in the age 49 (UK: 46). France is the only country that excludes births to women aged under 15 or over 49.

Nine of the thirteen countries (Finland, France, Germany, Luxembourg, Netherlands, Norway, Poland, Sweden and United Kingdom) use age-specific fertility rates calculated according to the parallel method with vertical sides. In four countries (Czech Republic, Lithuania, Romania and Spain) age-specific fertility rates are calculated according to the parallel method with horizontal sides. Since the square method does not relate to birth cohorts (see box), it is only logical that no country applies age-specific fertility rates that are calculated by the square method.

Table 2.11 Mean age of mother at birth of child

	Calculation of mean age of mother		Age of mother at birth of child	
	Rate-based	Event-based	Age completed	Age reached during the calendar year
A	x	x	x	
B		x	x	
BG		x	x	
CY	x	x	x	
CZ	x	x	x	
DK		x	x	
EE	x		x	
FIN		x	x	
F	x			x
D		x		x
EL		x	x	
HU		x	x	
IS		x	x	
IRL		x	x	
I	x		x	
LV		x		x
LI	-	-	-	-
LT	x		x	
L		x	x	
MT		x		x
NL	x	x		x
NO		x		x
PL		x	x	
P		x[1)]	x	
RO		x	x	
SK		x	x	
SI	x	x	x	
E	x		x	
S		x	x	
CH	x	x	x	
UK		x	x	

[1)] Will be rate-based in the future.

- Not applicable.

2.8.3 Mean age of the mother at birth of child

When calculating the mean age of the mother at birth of a child it is necessary to decide which age definition is to be applied. There are two possibilities, i.e. the age in completed years (in other words, the age reached at the most recent birthday) or the age reached during the calendar under study (in other words, the age reached at the birthday in that calendar year, or the age in completed years that one has at the end of that calendar year). Under the latter definition, the mean age at birth of child is 0.5 year higher than under the age-at-last-birthday approach.

Apart from age definition, it must also be decided whether the mean is calculated from the observations during the calendar year (event-based) or from the age-specific fertility rates (rate-based). The latter method has the advantage of being independent of variation in the successive birth-cohort sizes (see box in Chapter 4 - Marriages).

All countries except Liechtenstein produce figures on the mean age of the mother at birth of a child (see Table 2.11). Most countries calculate the figure by means of the event method, but 11 countries (Austria, Cyprus, Czech Republic, Estonia, France, Italy, Lithuania, Netherlands, Slovenia, Spain and Switzerland) calculate it by using the age-specific fertility rates. Of these countries, five (Austria, Cyprus, Netherlands, Slovenia and Switzerland) also produce event-based figures on the mean age of the mother at birth of a child.

Most countries measure age as the number of completed years. Only six countries (France, Germany, Latvia, Malta, Netherlands and Norway) prefer to use the age reached during the calendar year under study. Not surprisingly, most of these countries also calculate age-specific fertility rates by means of the parallel method. Latvia is the only exception.

Again, all countries except Liechtenstein produce figures on the mean age of the mother at birth of a first child (see Table 2.12). In general, countries apply the same procedures with respect to the age and calculation method (rate-based vs. event-based) as used when calculating mean age of the mother at birth of child. The only exceptions are Cyprus and Finland. In Cyprus, mean age at birth of a first child is calculated on the basis of events only, while in Finland both rates and events are applied. Here, birth order can be interpreted in two ways, i.e. birth order to the mother (biological birth order) and birth order within the current marriage. In most countries first birth is measured as the first birth to the mother. Belgium, Bulgaria, Germany, Luxembourg, Malta and United Kingdom are the only countries where birth order is exclusively measured with respect to the current marriage. Finland, France, Portugal and Slovenia indicate that both approaches are followed. This means that these countries produce two figures, one based on birth order to the mother and one based on birth order within the current marriage.

Table 2.12 Mean age of mother at birth of first child

	Calculation of mean age of mother		Child's birth order		Age of mother at birth of child	
	Rate-based	Event-based	Biological birth order	Birth order within the current marriage	Age completed	Age reached during the calendar year
A	x	x	x		x	
B		x		x	x	
BG		x		x	x	
CY		x	x		x	
CZ	x		x		x	
DK		x	x		x	
EE	x		x		x	
FIN	x	x	x	x	x	
F	x		x[1)]	x		x
D		x		x		x
EL		x	x		x	
HU		x	x		x	
IS		x	x		x	
IRL		x	x		x	
I	x		x		x	
LV		x	x			x
LI	-	-	-	-	-	-
LT	x		x		x	
L		x		x	x	
MT		x		x		x
NL	x	x	x			x
NO		x	x			x
PL		x	x		x	
P		x[2)]	x	x	x	
RO		x	x		x	
SK		x	x		x	
SI	x	x	x	x	x	
E	x		x		x	
S		x	x		x	
CH	x	x	x		x	
UK		x		x	x	

[1)] Since 1998.
[2)] Will be rate-based in the future.
- Not applicable.

Table 3.1 Time limit for declaration of death

A	1 working day
B	3 working days
BG	1 day
CY	5 days
CZ	1 day
DK	5 days
EE	3 days
FIN	1 day
F	1 day
D	1 day
EL	24 days
HU	1 day
IS	Before funeral takes place
IRL	12 months
I	10 days
LV	6 days
LI [1)]	1 day
LT	3 days
L	3 days
MT	Without delay
NL	Without delay
NO	7 days
PL	3 days
P	2 days
RO [2)]	3 days
SK	3 days
SI	2 days
E	Without delay
S	Without delay
CH	2 days
UK (E+W)	5 days
UK (NI)	5 days
UK (SC)	8 days

[1)] According to Liechtenstein, this is not possible in practice.
[2)] In the event of a crime, the declaration should be made within 2 days.

3 Deaths

3.1 The declaration of a death

As pointed out in section 1.2, deaths are registered in all the 31 countries under study. This means that all people who die within the territories of the 31 countries are, in principle, registered as deceased.

3.1.1 Persons who can make the declaration

In almost all countries doctors or relatives can make the declaration of death. In ten countries (Bulgaria, Czech Republic, Denmark, Finland, Italy, Lithuania, Norway, Poland, Slovak Republic, Slovenia and Sweden), the doctor who determines the death is the only authority to make the declaration of death. In a number of countries, friends, neighbours or people who live in the same house are obliged to declare a death if there are no relatives who do so.

3.1.2 Place where the declaration can be made

In most countries the declaration of death must be made at a local or district civil registration office. There are a number of exceptions. In Denmark deaths must be declared at the parishes, which pass on the information to the local population register. In Finland, however, deaths must be declared directly in the population register. In Sweden the local tax office serves as a local civil registration office. In Norway deaths must be declared at the probate court.

3.1.3 Time limit for declaration of death

In general, a distinction must be made between days in calendar days and working days. If the requirement is for a declaration within one or two days, this usually refers to working days.

In many countries the period for making a declaration of death is much shorter than the period for making a declaration of birth. In all but eight countries, a death declaration must be made within a small number of days after the death has occurred (see Table 3.1). These eight countries are:

- Cyprus, Denmark, Latvia, Norway and United Kingdom, where a declaration of death is allowed to be made within 5, 6 or 7 days.
- Italy, which permits a period of 10 days.
- Greece, which allows 24 days.
- Ireland, where a death may be declared as long as 12 months after the man or woman has passed away.

Table 3.2 Contents of the declaration of death (selected information)

	Deceased person												
	Name	PIN [1]	Date of death	Date of birth	Age	Place of birth	Place of death (municipality, …)	Place of death (at home, hospital, …)	Address	Sex	Marital status	Nationality	Cause of death
A	x		x	x		x	x	x	x	x	x	x	x
B	x		x	x		x			x				
BG	x	x	x	x	x		x	x	x	x	x	x	x
CY	x	x	x	x		x	x		x	x	x		x
CZ	x	x	x	x	x		x	x	x	x	x	x	x
DK	x	x	x						x	x			
EE	x	x	x	x		x	x	x	x	x	x	x	x
FIN	x	x	x	x		x	x	x	x	x	x	x	x
F	x		x	x		x	x	x	x	x	x	x	
D	x		x	x		x	x		x	x	x	x	x
EL	x		x	x			x	x		x	x	x	x
HU	x		x	x			x		x	x	x	x	
IS	x		x	x	x	x	x	x	x	x	x	x	x
IRL	x		x		x		x	x	x	x	x		x
I	x		x	x	x	x	x	x	x	x	x	x	x
LV	x	x	x	x	x	x	x	x	x	x	x	x	x
LI	x		x	x		x	x		x	x	x	x	x
LT	x	x	x	x	x	x	x		x	x	x	x	x
L	x		x	x		x		x	x	x	x	x	x[2]
MT	x		x		x		x	x		x	x	x	x
NL	x		x	x		x	x		x				
NO	x	x	x	x	x	x	x		x	x	x	x	x
PL	x		x	x			x	x	x	x	x		x
P	x	x	x	x		x	x	x	x	x	x	x	x
RO	x	x	x	x		x	x		x	x	x	x	x
SK	x	x	x	x		x[3]	x[3]	x	x	x	x	x[4]	x
SI	x	x	x	x		x	x	x	x	x	x	x	x
E	x	x	x	x		x	x		x	x	x	x	x
S	x	x	x				x		x				x
CH	x		x	x		x	x		x		x		
UK	x		x	x		x	x		x	x	x		x

[1] Personal Identification Number.
[2] This information is not on the declaration but on a separate form.
[3] These variables are not subject to the statistical survey, but they are included in the Death Declaration.
[4] Nationality - both ethnic nationality and citizenship are surveyed.

3.2 The contents of a declaration of death

The contents of a declaration of death vary between the 31 countries (see Table 3.2). In all countries the deceased person's name and date of death are on the declaration of death, while date of birth (or age), place of birth, place of death (at home, hospital, etc.), most recent address, sex, marital status, nationality and cause of death are registered in over 20 countries. Fifteen countries register the Personal Identification Number (PIN), which in a number of countries permits a link with other registered data.

Eight countries record the deceased person's religion: Austria, Cyprus, Finland, Germany, Greece, Iceland, Latvia and Liechtenstein. In Bulgaria, Czech Republic, Estonia, Italy, Lithuania, Poland, Romania and Slovenia, educational level is registered on the declaration of death. Iceland records the place and date of the burial, while Sweden records whether the deceased person had a pacemaker (an important factor in view of the risk of explosion at cremation or the risk of pollution after the burial).

Data on the parents are registered by a limited number of countries. In Iceland the mother's name appears on the declaration of death if the deceased child did not yet have a name. Slovenia and the United Kingdom register parental data in the case of deceased children under 7 (Slovenia) or 16 (United Kingdom). In Finland the parents' causes of death are registered on the declaration of death. Slovenia registers data on the mother's education, occupation, socio-economic status and the number of children to whom she has given birth. In that country the type of family into which the deceased child was born is also registered.

Name of spouse is registered by 12 countries (Austria, Belgium, Finland, Latvia, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovenia, Switzerland and United Kingdom), and spouse's date of birth (or age) by eight countries (Austria, Finland, Germany, Greece, Hungary, Norway, Romania and Slovenia). Four countries (Austria, Finland, Norway and Slovenia) register both variables. Finland, Latvia, Norway and Switzerland register the spouse's address; while the United Kingdom registers the spouse's occupation. In Austria, Hungary and Switzerland, the marriage date is recorded on the declaration of death.

Fifteen countries (Austria, Belgium, Cyprus, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Spain, Switzerland and United Kingdom) register the name of the person who makes the declaration of death. In all of these countries except Belgium, Cyprus, Germany, Italy and Norway, that person's address is also registered. Belgium, Italy, Luxembourg, Netherlands and Norway record the declaring person's date of birth. Belgium, Cyprus, Italy, Latvia and Switzerland record the relationship of the declaring person to the deceased, while Latvia, Luxembourg and United Kingdom require the declaring person's occupation to be registered.

Table 3.3 Definition of a death

	UN definition	Other definition
A		Irreversible loss of brain function
B [1)]	x	
BG	x	
CY	x	
CZ		Irreversible loss of brain function
DK		Irreversible loss of brain function
EE		Irreversible loss of brain and/or heart function
FIN	x	
F	x	
D [2)]		Irreversible loss of brain function
EL	x	
HU	x	
IS		Irreversible loss of brain function
IRL	x	
I	x	
LV	x	
LI	x	
LT	x	
L	x	
MT	x	
NL	x	
NO		Irreversible loss of heart function
PL	x	
P	x	
RO	x	
SK	x	
SI	x	
E	x	
S	x	
CH	x	
UK	x	

[1)] In cases of doubt, an ECG will be made to establish loss of brain function.
[2)] Also other signs, such as rigor mortis or decomposition.

Seven countries (Austria, Estonia, Finland, Germany, Iceland, Latvia and Poland) register the name of the hospital where the death took place. Eleven countries (Austria, Estonia, Finland, Germany, Greece, Iceland, Latvia, Poland, Portugal, Slovak Republic and Spain) record the name of the doctor who determined the person to be deceased. In Norway the names, PINs and addresses of the heirs are registered on the declaration of death.

Slovenia and Latvia register the greatest number of items on the declaration of death, while Denmark and Sweden register only a limited number of items. The latter countries make a link to the population register, where many data on the deceased person are stored.

In general, there is a relationship between the number of items on birth and death certificates. Countries that register many/few items on the birth certificate tend to register many/few items on the death certificate. Furthermore, in most countries the number of items on the death certificate is smaller than on the birth certificate. Italy, Portugal, Spain and United Kingdom are an exception to this rule.

3.3 The definition of a death

According to the United Nations (UN) definition, a death is the permanent disappearance of all evidence of life at any time after live birth has taken place (postnatal cessation of vital functions without capability of resuscitation). This definition therefore excludes foetal deaths.

The majority of countries (20) follow the UN definition (see Table 3.3). Austria, Czech Republic, Denmark, Germany and Iceland depart somewhat from this definition and use only the irreversible loss of brain function as a definition of death.

Table 3.4 Deaths abroad and deaths of non-residents

	Deaths of residents abroad included in national statistics		Deaths of non-residents included in national death statistics	
	Yes	No	Yes	No
A		x		x[1)]
B	x			x
BG	x			x
CY	x		x	
CZ	x			x
DK	x			x
EE	x			x[2)]
FIN	x			x
F	x		x	
D	x			x
EL	x		x	
HU	x		x	
IS	x			x
IRL		x	x	
I	x		x	
LV	x			x
LI	x		x	
LT	x			x
L	x			x
MT	x			x
NL	x			x
NO	x			x
PL	x			x[1)]
P		x	x	
RO	x			x
SK	x			x
SI	x			x
E	x		x	
S	x			x
CH	x			x[1)]
UK		x	x	

[1)] They are registered as a separate category, but not included in the statistics.
[2)] Since 2000.

3.4 Persons dying abroad

Persons who have died abroad are included in in most countries' national death statistics (see Table 3.4). Exceptions are Austria, Ireland, Portugal and United Kingdom. In line with this, most countries exclude deceased non-residents from the national statistics. However, no fewer than 10 countries (Cyprus, France, Greece, Hungary, Ireland, Italy, Lithuania, Portugal, Spain and United Kingdom) include non-residents in their death statistics.

From this it can be concluded that 20 countries act according to the *de jure* population concept. This means that residents who have died abroad are included and deaths of non-residents are excluded. The 11 other countries can be grouped as follows:

- In seven countries (Cyprus, France, Greece, Hungary, Italy, Liechtenstein and Spain), the number of deaths in statistics is too high because both groups are included.
- By contrast, in one country (Austria) this number is too low because both groups are left out.
- In three countries (Ireland, Portugal and United Kingdom), the number of deaths may be over- or underestimated. If the number of deaths of non-residents in these countries is higher than the number of deaths among residents who are abroad, the number of deaths will be underestimated. However, if the number of deaths of non-residents is lower, this leads to overestimation of the number of deaths.

Countries can be divided into two main groups as regards the registration of deaths abroad. The first group consists of those countries that take the foreign death certificate as a basis. Austria, Bulgaria, Denmark, Finland, Germany, Lithuania, Malta, Netherlands, Norway, Romania and Slovak Republic are among these countries. Malta requires the foreign death certificate to be authenticated.

Other countries (Cyprus, Czech Republic, Estonia, France, Greece, Hungary, Italy, Latvia and Sweden) require the death to be declared at an embassy, consulate or other type of office abroad, and draw up a declaration of death based on the foreign death certificate. Sweden has the declaration of death drawn up by an authorised doctor in the country in question.

3.5 Quality of the registration

Most countries consider their registrations of deaths as accurate and complete. However, a small number of the countries described their registrations as ´acceptable´ or ´fairly good´. In Cyprus about 70% of the deaths are registered, and the total number of deaths is obtained by matching the individual data with the data provided by the priests at cemeteries.

Table 3.5 Definition of stillbirths

	No signs of life	Minimum gestational period	Minimum length	Minimum weight
A	x			500 gr
B	x	180 days		
BG	x	28 weeks	35 cm	
CY	x	28 weeks		
CZ	x			1 000 gr
DK	x	28 weeks		
EE	x	28 weeks		
FIN	x	22 weeks		500 gr
F	x	180 days		
D	x			500 gr
EL	x		30 cm	
HU	x	24 weeks	30 cm	500 gr
IS	x	28 weeks		1 000 gr
IRL	x	24 weeks		500 gr
I	x	180 days		
LV	x	22 weeks		
LI	x	21 weeks	30 cm	500 gr
LT	x	22 weeks		500 gr
L	x		30 cm	
MT [1)]	x	22 weeks		500 gr
NL	x	24 weeks		
NO	x	28 weeks		
PL	x	28 weeks		
P	x	28 weeks		
RO	x	28 weeks		
SK	x			1 000 gr
SI	x	22 weeks	25 cm	500 gr
E	x	180 days		
S [2)]	x	28 weeks		
CH	x		30 cm	
UK (E+W)	x	24 weeks		

[1)] For international statistics, stillbirths of 1 000 grams or more are included.
[2)] When unsure about the pregnancy week, length should be at least 35 cm.

3.6 Form to be completed in case of infant mortality

Most countries do not have special forms to be filled in for children who die before their first birthday, although a number of countries require some special questions to be answered on the certificate that applies to all deaths. Only some countries have special forms to be completed when a young child has died. In Belgium a special form exists for children not older than 1 year and for stillbirths. In Estonia there is a special form for children not older than 6 days and for stillbirths. Finland and Portugal have a special form for children who die within 28 days of birth. In Hungary a certificate on the examination of a perinatal death and a notice regarding these deaths must be completed. In Italy a special form exists for children not older than 1 year. In Norway a medical birth-registration form and a declaration must be filled in by a medical examiner. England and Wales have a neonatal death certificate that includes both maternal and foetal conditions from which it is not possible to assign a single underlying cause of death.

3.7 Definition of a stillbirth

Generally speaking, a stillbirth is the product of a birth that shows no signs of life during and after the whole process of being born. All countries follow these definitions, but there is less homogeneity as to pregnancy-duration and length and weight at birth (see Table 3.5). Most countries require the pregnancy to have lasted at least 22, 24 or 28 weeks. In Belgium, France, Italy and Spain the pregnancy must have lasted over 180 days, in Liechtenstein over 21 weeks. Five countries (Bulgaria, Hungary, Liechtenstein, Slovenia and Switzerland) require a minimum length at birth, varying between 25 and 35 centimetres. In Sweden a stillbirth is recorded if the pregnancy-duration is unsure and the length of the foetus is at least 35 centimetres. A number of countries require a minimum birth weight of 500 or 1 000 grams.

3.8 Age definition

Almost all countries are able to give deaths by both age definitions: age reached on 31 December and age at last birthday (see Table 3.6). In Belgium, Cyprus, Greece, Iceland, Liechtenstein and Malta, only age at last birthday is applied, while Latvia is the sole country where only age reached on 31 December is registered.

Table 3.6 Age definition of deaths

	Age completed	Age reached during the calendar year
A	x	x
B	x	
BG	x	x
CY	x	
CZ	x	x
DK	x	x
EE	x	x
FIN	x	x
F	x	x
D	x[1)]	x
EL	x	
HU	x	x
IS	x	
IRL	x	x
I	x	x
LV		x
LI	x	
LT	x	x
L	x	x
MT	x	
NL	x	x
NO	x	x
PL	x	x
P	x	x
RO	x	x
SK	x	x
SI	x	x
E	x	x
S	x	x
CH	x	x
UK	x	x

[1)] Since 2000.

3.9 Mortality indicators

3.9.1 Death rates

All 31 countries except Liechtenstein produce death rates. Most countries (21 in number) have death rates for 1-year age groups available, but Bulgaria, Cyprus, Estonia, France, Iceland, Ireland and UK calculate death rates only for 5-year age groups. In the Slovak Republic rates for five-year age groups are processed on a regular basis, but that country is able to calculate rates for single ages as well. This means that all countries except Liechtenstein are able to produce at least rates for 5-year age groups.

Sweden is the only country that does not fix the maximum age for which death rates are calculated. In that country rates are calculated for all ages, which means that the oldest deceased person determines the highest distinguished age. In the other countries, the highest age for which death rates are calculated varies between 80+ (Cyprus) and 110+ (Greece).

There are several ways to calculate death rates. At first sight, the concept of a death rate is an easy one, i.e. the number of deaths in a certain age group divided by the number of living people in that age group. However, carrying out such a calculation in practice poses a number of difficulties and obstacles that vary from country to country. Furthermore, if a country is able to calculate death rates in more than one way, a practical decision must be made. Three ways of calculating death rates are practised. These are referred to as

1. the square method;
2. the parallelogram with vertical sides method;
3. the parallelogram with horizontal sides method.

The names of these three methods relate to the persons included in the denominator and numerator of the death rate, from a Lexis diagram point of view. For this, the reader is referred to appendix I (Age-specific demographic rates).

For countries that apply the square method, the age-specific death rate for people of age *a* is calculated as the number of deaths at age *a* (in completed years) in a given calendar year, divided by the average number of inhabitants of age *a* (in completed years) in that calendar year.

Countries that apply the parallel method with vertical sides define the age-specific death rate for people of age *a* as the number of deaths at age *a* (age at 31 December) in a given calendar year, divided by the average number of inhabitants of age *a* (age at 31 December) in that calendar year.

Countries that apply the parallel method with horizontal sides calculate the age-specific death rate for people of age *a* as the number of deaths at age *a* (completed years) of people born in a given calendar year, divided by the average number of inhabitants of age *a* (completed years) born in that calendar year.

Table 3.7 Age-specific death rates

	Death rates available for both sexes	Age					Method for calculating ASDR's		
		Single ages	5 year age groups	Other	Highest age distinguished	Persons who die at a higher age are assigned to	Square [1]	Parallelogram with vertical sides [2]	Parallelogram with horizontal sides [3]
A	x	x			95+	95+	x		
B	x	x			109	109	x		
BG	x		x	1-4	99	100 +	x		
CY	x		x		80+	80+	x		
CZ	x	x	x		95+	95+	x		
DK	x	x			99	99			x
EE	x		x	1-4	100+	100+	x		
FIN	x	x			100+	100+	x		
F	x		x	1-4	90+	90+		x	
D	x	x			90+	90+	x		
EL	x	x			110+	110+	x		
HU	x	x	x		100+	100+	x		
IS	x		x		100+	100+	x		
IRL	x		x		85+	85+	x		
I	x	x			94	95			x
LV	x	x	x		85+	85+	x		
LI	-	-	-	-	-	-	-	-	-
LT	x	x			90+	90+	x		
L	x	x	x	x	100+	100+	x		
MT	x	x	x		99	99		x	
NL	x	x			98.5+	98.5+	x	x	
NO	x	x			99	99			x
PL	x	x			100	100	x		
P	x	x	x		85+	85+	x	x	
RO	x	x	x		85+	85+			x
SK	x	x[4]	x[5]		85+[4], 100+[5]	85+[4], 100+[5]	x		
SI	x	x			100+	100+	x		
E	x	x			100+	100	x		
S	x	x			all ages	-	x		
CH	x	x	x		99	99	x		
UK (E+W)	x		x	1-4	85+	85+	x		

[1] Square: deceased in the same year and who had the same age in completed years at the time of death (members of two cohorts).
[2] Parallelogram with vertical sides: deceased in the same year and who (would have) reached the same birthday during the year of death (members of the same cohort).
[3] Parallelogram with horizontal sides: deceased in two consecutive years and who reached the same birthday during the year of death (members of the same cohort).
[4] Generally used.
[5] Possible to calculate.

Most of the 31 countries use the square method to calculate the age-specific death rates (see Table 3.7). Four countries (France, Malta, Netherlands and Portugal) use the parallelogram with vertical sides method, while another four (Denmark, Italy, Norway and Romania) use the method with horizontal sides.

3.9.2 Infant death rates

Infant death rates are calculated according to the methods used to calculate death rates for ages 1 and over. For countries that apply the square method, infant mortality is calculated as the number of deaths under 1 year of age (before the first birthday is reached) in a given calendar year, divided by the number of live births in that calendar year. Lithuania and Portugal use a variant of this method. They calculate the infant death rate in the calendar year *t* as the number of deaths under 1 year of children born in year *t* divided by the number of live births in year *t*, plus the number of deaths of children under 1 year born in year *t-1* divided by the number of live births in year *t-1*. In this variant, the dead children are related to the number of live births in the year when they were born rather than to the number of live births in the year they died.

Countries that apply the parallel method with vertical sides define the infant death rate as the number of children that die in the year of birth divided by the number of live births in that calendar year. In the Netherlands an additional correction for external migration is made. Note that from a Lexis diagram point of view, this death rate applies to a lower triangle only. This means that compared with the two other methods, this method slightly underestimates the infant death rate.

Countries that apply the parallel method with horizontal sides calculate the infant death rate as the number of children born in a given calendar year who die before their first birthday is reached, divided by the number of live births in that calendar year.

Table 3.8 Life expectancy at birth (e0)

	Available by sex	Highest age distinguished in life table	Life table based on unsmoothed death rates	Life table based on smoothed death rates	
					Method used
A	x	95/100[1)]		x	Spline functions
B	x	105	x		
BG	x	100	x		
CY	x	80+		x	Mortpak-lite
CZ	x	103		x	Gompertz-Makeham
DK	x	99		x	2 years average
EE	x	100		x	Gompertz-Makeham
FIN	x	100+	x		
F	x	120	x		
D	x	90	x		
EL	x	110		x	Weighted averages
HU	x	100		x	Böckh
IS	x	95		x	Developed by Statistics Iceland
IRL	x	105		x	Kings method
I	x	120		x	Weighted averages (0-94); Kannisto (95-120)
LV	x	92		x	Mortpak-lite
LI	-	-	-	-	-
LT	x	90+		x	Exponential method
L	x	100+		x	3 years average
MT	x	85	x		
NL	x	98.5+	x		
NO	x	99	x		
PL	x	100		x	Moving parabolic fit - for age 0-84; exponential polynomial survivership function - for age 85+
P	x	85+		x	Reed-Merrell
RO	x	100	x		
SK	x	x[2)] (100+), x[3)] (85+)		x	Gompertz-Makeham
SI	x	85+, 100+[4)]		x	Reed-Merrell
E	x	100		x	Variate difference method
S	x	all ages		x	Developed by Statistics Sweden
CH	x	99	x		
UK	x	85	x		

[1)] In Austria annual life tables are calculated until age 95 using unsmoothed death rates. Decennial ("official") life tables based on smoothed death rates are calculated until age 100 for three-year periods around the censuses.
[2)] Complete life tables.
[3)] Abridged life tables.
[4)] Every 10 years.

3.9.3 Life expectancy at birth

All 31 countries except Liechtenstein produce separate life tables for males and females (see Table 3.8). Sweden is the only country that has no fixed highest age in the life table. In other countries the highest age varies between 80+ (Cyprus) and 120 (France). Eleven countries base their life tables on unsmoothed rates, while in 19 countries a smoothing technique is applied to the age-specific death rates when a life table is produced. Cyprus produces two types of life table, one based on unsmoothed rates and the other on smoothed rates. The smoothing method applied varies widely between the countries. Two countries (Cyprus and Latvia) use the UN-software Mortpak-lite, Czech Republic, Estonia and Slovak Republic use the Gompertz-Makeham method, while Portugal and Slovenia apply the Reed-Merrell method. The other 13 countries apply 12 different methods.

A smoothing method may be used when calculating life tables. It aims at obtaining a smooth series of age-specific death rates. For the ages between 0 and, say, 15, the death rates are assumed to get smaller. On the other hand, the successive age-specific death rates are assumed to increase as age increases.

Table 4.1 Marriage

	Civil marriage is possible	Religious marriage influences civil status
A	Yes	No
B	Yes	No
BG	Yes	No
CY	Yes	Yes
CZ	Yes	No
DK	Yes	Yes
EE	Yes	Yes [1)]
FIN	Yes	Yes
F	Yes	No [2)]
D	Yes	No
EL	Yes	Yes
HU	Yes	No
IS	Yes	No
IRL	Yes	Yes
I	Yes	Yes
LV	Yes	Yes
LI	Yes	No
LT	Yes	Yes
L	Yes	No
MT	Yes	No
NL	Yes	No
NO	Yes	Yes
PL	Yes	Yes [3)]
P	Yes	No
RO	Yes	No
SK	Yes	Yes
SI	Yes	No
E	Yes	Yes
S	Yes	Yes
CH	Yes	No
UK (E+W)	Yes	Yes
UK (NI)	Yes	No
UK (SC)	Yes	Yes

[1)] Since December 2001.
[2)] Exception for religious marriages contracted abroad.
[3)] Must be registered within 5 days at the local registration office.

4 Marriages

4.1 Registration of marriages

In all the 31 countries under study, contracting a civil marriage is possible (see Table 4.1). However, the relation between a civil marriage and a religious marriage is not the same in all countries. In 15 countries a religious marriage has consequences for the civil marriage in the sense that a religious marriage is recognised by the state as equivalent to a civil marriage. France states that a religious marriage has no consequences for marital status, unless that religious marriage has been contracted abroad.

Table 4.2 Documents to be filled in when declaring a marriage

	Marriage register	Marriage doc/certificate	Statistical bulletin
A	x	x	x
B	x	x	x
BG	x	x	
CY		x	
CZ	x	x	
DK		x	
EE	x	x	
FIN	x	x	
F		x	x
D		x	
EL		x	x
HU	x	x	x
IS	x	x	
IRL		x	
I	x	x	x
LV	x	x	
LI		x	
LT	x	x	
L	x	x	
MT		x	
NL	x	x	
NO		x	
PL		x	x
P	x	x	x
RO		x	x
SK		x	x
SI		x	
E	x	x	x
S		x	
CH	x	x	
UK	x	x	

In a number of countries registration of a marriage by the authorities that perform the marriage is not sufficient. It goes without saying that in countries with a population register, the marital status of the newly married persons must be updated. This does not mean that (a copy of) the marriage certificate itself is stored in this register, but (part of) the information is.

In countries where religious marriages are recognised by the state, the civil registrar should also register the wedding. There are also some country-specific features, as follows:

- In Cyprus all civil marriages must also be registered at the Ministry of the Interior.
- In the Czech Republic certificates are stored per registry district.
- In the Slovak Republic this is done by the Ward Register Office.
- In Spain marriage certificates are stored by the Civil Register.
- In Sweden the local tax office is informed about the marriage.
- In the United Kingdom copies of marriage certificates are forwarded to the General Register Office.

In most countries the information about a new marriage should be forwarded to the other organisations without delay, or within a few days. Exceptions are Cyprus and Greece. The Cyprus Ministry of the Interior is supposed to receive the information within 45 days, the Greek Registrar within 40 days.

In most countries marriages can be performed by the civil registrar and/or by clergymen. In addition, in Norway the district court judge and in Spain civil servants from the Ministry of Justice are also authorised to perform marriages.

Table 4.3 Minimum marriageable age

	Males	Females	Exceptions	
			Age	Possible exceptions
A	18	18	females 15 / 16	15: court; 16: parent / guardians
B	18	18	<18	Consent needed from juvenile court
BG	18	18	16	Permission of chairman of the regional court of justice
CY	18	18 (cvl) / 16 (rel.)	16 (civil)	Consent of both parents needed
CZ	18	18	16[1)]	If it is in harmony with the social purpose of marriage
DK	18	18		
EE	18	18		
FIN	18	18		
F	18	15		Consent needed from the *procureur de la république*
D	18	18	16	When spouse is aged 18 or over
EL	14	12		
HU	18	18	16	Special permit of court of guardians
IS	18	18	<18	Consent needed from both parents
IRL	21	21	18-21 / <18	18-21: parental consent; <18:permission of court judge
I	18	18	16	Authorisation of parents
LV	18	18	16-17	Consent parents needed when partner >=18
LI	18	18		
LT	18	18	<18	Judgement from court
L	18	18		
MT	18	18	16	Parental consent
NL	18	18	16	Bride is pregnant or has already given birth to a child
NO	18	18	<18	Marriage license, to be applied for to the King
PL	18	18		
P	16	16		
RO	18	16	16 (f) / 18 (m)	When mayor comes to terms with the parents
SK	18	18	16	Court order, or when bride is pregnant
SI	18	18	<18[2)]	Consent needed from parents and centre for social work
E	18	18	16 / 14	16: parental consent, judicial decision; 14: age dispense
S	18	18	<18	Consent of county administration needed
CH	18	18		
UK (E+W)	18	18	16	Consent of parents or guardians needed
UK (NI)	18	18	16	Consent of parents needed
UK (SC)	16	16		

[1)] For marriages to persons aged 16 or 17, a permit is needed. Without such permission a marriage is not valid and a court will nullify it even without an application. However, nullification does not take place and such marriages become valid if a spouse who was minor at the time the marriage was concluded has already become 18 or if the wife has become pregnant.

[2)] The lower age limit is not determined. As a rule, people under 15 do not marry.

4.2 Minimum marriageable age

In most countries the minimum age for contracting a civil marriage is 18, valid for both men and women (see Table 4.3). Ireland is the only country where the minimum age is 21. In that country people of 18-20 can get married with parental consent, but youngsters under 18 need the permission of a court judge.

In a number of countries the minimum marriageable age is below 18. This applies mainly to women.

- In France the minimum marriageable age for women is 15.
- In Romania it is 16.
- Greece and Portugal are the only countries where the minimum age is below 18 for both sexes. Greek men are allowed to get married when they are 14, while Greek women need to be 12 or older. In Portugal the minimum age is 16 for both sexes.

In most countries people who are younger than the minimum legal age can get married if a court or parents or guardians grant permission, or if certain specified conditions are met. However, these conditions vary widely between countries.

- Austrian women aged 16 or 17 can get married with parental consent, while women aged 15 need the permission of a court. Such permission may be granted if the woman seems mature enough to get married. In Spain the same rule exists, but the minimum age to get married with the permission of a court is even lower, i.e. 14.
- In Bulgaria, Czech Republic and Hungary, youngsters aged 16 or 17 can get married with the permission of a court.
- In Cyprus women aged 16 or 17 are allowed to contract a religious marriage, while the minimum age to contract a civil marriage is 18. With parental consent, women aged 16 or 17 can contract a civil marriage.
- In France men under 18 and women under 15 can get married with the permission of *le procureur de la République* (i.e. public prosecutor).
- German women of 16 or 17 can get married if their intended spouse is 18 or over.
- In Italy, Malta and United Kingdom, youngsters aged 16 or 17 can get married with parental consent.
- In Lithuania people under 18 need the permission of a court.
- In the Netherlands a marriage can be contracted if both would-be spouses are 16 or over and if the bride is pregnant or has already given birth to a child.
- Norwegian youngsters must obtain the permission of the King or his representative at county level.
- In Romania men under 18 and women under 16 can get married in special cases (e.g. when, according to the Family Judicial Code, the mayor reaches an agreement with the parents).
- In the Slovak Republic a court permits people of 16 or 17 to contract a marriage if the bride is pregnant.
- In Slovenia people under 18 can get married with the consent of their parents and the centre for social work, provided there are justified reasons for doing so. As a rule, people under 15 do not marry.

Table 4.4 Contents of the declaration of marriage (selected information)

	Marriage date	Place of marriage	Surnames before marriage	Surnames after marriage	Level of education	Home address	Religion	Date of birth
A	x	x	x	x		x	x	x
B	x	x	x	x		x		x
BG	x	x	x	x		x		x
CY	x	x	x			x	x	
CZ	x	x	x	x	x	x		x
DK	x	x	x					x
EE	x	x	x	x	x	x		x
FIN	x	x	x			x	x	x
F	x	x	x			x		x
D	x	x	x	x			x	x
EL	x	x	x		x		x	x
HU	x	x	x		x	x		x
IS	x	x	x			x	x	x
IRL	x	x	x			x		x
I	x	x	x		x	x		x
LV	x	x	x	x		x	x	x
LI	x	x	x	x		x		x
LT			x		x			x
L	x	x	x			x		x
MT	x		x					
NL	x	x	x	x				x
NO			x			x		x
PL	x	x			x	x	x	x
P	x	x	x	x	x	x		x
RO	x	x	x		x			x
SK	x	x[1)]	x[1)]	x[1)]	x	x		x
SI	x	x	x	x	x	x		x
E	x	x	x			x		x
S	x		x			x		
CH	x	x	x	x		x		x
UK (E+W)	x	x	x			x		
UK (NI)	x		x					x
UK (SC)	x	x	x			x		x

[1)] These variables are not subject to statistical survey, but they are included in the Report on Marriage.
[2)] The Ward Register Office requires this information (i.e.country of birth) for the purpose of the marriage.
[3)] Ethnic nationality.

Table 4.4 Contents of the declaration of marriage (selected information) - continued

Age	Place of birth	Country of birth	Nationality	Marital status	Date of divorce	Number of previous marriages	Number of children	
	x	x	x	x	x	x	x	**A**
	x		x	x	x			**B**
x	x	x	x	x		x	x	**BG**
x	x	x	x	x		x		**CY**
x		x[1)]	x	x	x	x		**CZ**
	x		x	x				**DK**
	x	x	x	x	x	x	x	**EE**
	x	x	x	x				**FIN**
	x			x			x	**F**
	x		x	x			x	**D**
			x	x		x		**EL**
			x	x	x	x	x	**HU**
x	x	x	x	x	x	x		**IS**
x				x				**IRL**
x	x		x	x	x			**I**
	x	x	x	x		x	x	**LV**
	x			x				**LI**
x	x		x	x		x		**LT**
	x	x	x	x				**L**
x			x					**MT**
	x							**NL**
	x		x					**NO**
				x	x	x		**PL**
	x	x	x	x	x	x	x	**P**
			x	x		x		**RO**
x	x[2)]	x[2)]	x[3)]	x	x	x		**SK**
	x	x	x	x	x	x		**SI**
	x		x	x	x	x		**E**
								S
	x	x		x			x	**CH**
x				x				**UK (E+W)**
	x		x	x				**UK (NI)**
		x	x	x				**UK (SC)**

4.3 The contents of a declaration of marriage

In most countries the names of the spouses, date and place of marriage, home address, place and date of birth (in some countries: age), nationality and former marital status of both spouses are recorded on the marriage certificate (see Table 4.4).

As with birth and death certificates, there is a wide variety between countries as to any further data recorded on the marriage certificate. Such data include maiden names, the names borne by the spouses when married, names of the parents, names of the witnesses, education, profession, religion, country of birth, number of children, number of previous marriages and (for people who have been married before) the date when the previous marriage ended.

In Austria the name, address, date of birth, place of birth, birth certificate number and nationality of dependent children are registered on the marriage certificate. The Czech Republic and the United Kingdom register the father's profession. In Finland the language of the spouses is mentioned on the marriage certificate. Malta records the identity papers of the bride and bridegroom.

4.4 Marriages performed abroad and marriages contracted between non-residents

Unlike births and deaths, which can be treated on an individual basis, marriages are contracted between two persons who do not necessarily belong to the same population. Moreover, marriages may be contracted outside the country of residence. It is therefore useful to make a distinction between the following four situations:

Spouses by country of residence and country of marriage

	Country of residence		Country of
	spouse 1	spouse 2	marriage
Case 1	X	X	X
Case 2	X	Y	X
Case 3	X	X	Z
Case 4	X	Y	Z

Case 1 represents the most common situation, i.e. two people who reside in the same country get married in that country. The marriage certificate is drawn up in that country, the marriage enters the marriage statistics of that country and no other country is involved, neither in the sense of population administration nor in the sense of population statistics. With respect to the three other cases, two or even three countries are involved.

In the three other cases, the reasoning is from the point of view of spouse 1 or of his/her country of residence respectively.

- Case 2 relates to the situation where the marriage is contracted in the country where spouse 1 lives, but spouse 2 is from a different country. This situation occurs frequently in regions near foreign borders.
- Case 3 relates to the situation where spouse 1 marries a fellow-countryman but the marriage is contracted in another country, for instance during a holiday. Some immigrants also belong to this category.
- Case 4 relates to the situation where the spouses are from two different countries and the marriage is contracted in a third country (e.g. a man from the Netherlands and a woman from Belgium who marry in Portugal). This situation will be the rarest of the four cases presented.

Marriages that are contracted abroad relate to Cases 3 and 4. Most countries require the marriage to be declared to official representatives of the country abroad, such as embassies or consulates. However, there are some country-specific differences, as follows.

- In Bulgaria, Czech Republic and Slovak Republic, a country-specific marriage document is drawn up, based on a copy of the marriage certificate drawn up abroad.
- Cyprus, Ireland and Portugal, on the other hand, do not register marriages contracted abroad.

- Denmark, Finland, Netherlands and Norway require the marriage to be reported in the population register.
- A number of countries require the marriage to be declared at an embassy or consulate abroad, but no new marriage certificate is drawn up. Among these countries are Estonia, Hungary and Italy.
- In Germany, Romania and Slovenia, marriage data are stored in a central register. Furthermore, Germany requires that a copy of the foreign marriage certificate be sent to the central Registrar's Office in Germany.
- In France, a marriage is registered by the civil registrar at the request of the married couple, provided the foreign authorities pass on the necessary information to the French registrar.
- In Lithuania and Malta, marriage certificates of residents who have married abroad must be legalised.
- In the Netherlands, the law to prevent marriages of convenience allows the registrar to refuse the registration of marriages.
- Swedish residents who have married abroad must themselves provide proof of this at the Local Tax Authority.
- In the United Kingdom, only a court can decide whether a marriage that has taken place outside the United Kingdom is recognised under British Law.

Most countries include marriages of residents contracted abroad and exclude marriages by non-residents (see Table 4.5). But there are a number of exceptions, as follows:

- Austria is the only country that excludes both categories. In that country, marriages are included in the statistics only if they concern Austrian citizens who marry in Austria.
- Cyprus, Germany, Ireland, Portugal and United Kingdom base their marriage statistics on the marriages contracted within the country, irrespective of the country of residence of the marrying persons. In fact, they exclude marriages of residents who marry abroad and include the marriages of non-residents who marry within the country.
- France, Greece, Hungary, Italy and Spain include both categories. The marriage statistics of these countries include all marriages contracted within the country (irrespective of whether they concern residents or non-residents) and all marriage of residents who get married abroad.

From the foregoing it may be concluded that, in respect of Europe as a whole, marriages are not uniformly counted in terms of statistics. A marriage may even not be covered at all, as the following shows:

- With reference to the four hypothetical cases introduced above, Case 1 is the easiest. It applies to two persons who are residents of the same country and who get married in that country. Such a marriage will be covered by the statistics of that country, and by no other country.
- A Case 2-type marriage will be covered by the marriage statistics of country X. It may also be included in the statistics of country Y if that country includes marriages of residents that are performed abroad. That is the case in all the 31 countries except Austria, Cyprus, Germany, Ireland, Portugal and United Kingdom.

- A Case 3-type marriage will be in the statistics of country X if that country includes marriages of residents that are performed abroad. That is the case in all the 31 countries except Austria, Cyprus, Germany, Ireland, Portugal and United Kingdom. However, this marriage will also be covered by country Z if the statistics of that country include all marriages that are contracted in that country. This is the case for Cyprus, France, Germany, Greece, Hungary, Ireland, Portugal, Spain and United Kingdom.
- A Case 4-type marriage is similar to case 3, although "country X" should be understood as "countries X and Y".

A Case 2-type marriage can be in the statistics of 1 or 2 countries. In any event, it is in the statistics of the country where the marriage is contracted, which is also the country of which the first spouse is a resident. If the second spouse is a resident of Austria, Cyprus, Germany, Ireland, Portugal or United Kingdom, the marriage is recorded only in the statistics of the country where the marriage was contracted. If the marriage was contracted in a country other than Austria, Cyprus, Germany, Ireland, Portugal or United Kingdom, it is recorded in the statistics of that country, too.

A Case 3-type marriage can be in the statistics of 0, 1 or 2 countries. An example is given of all three situations:

- If two Irish residents get married in Belgium, the marriage will not be included in the marriage statistics of any country.
- If two Belgian residents get married in Luxembourg, their marriage will only be included in the Belgian statistics. Similarly, two Irish residents who get married in the United Kingdom will only be covered in the UK statistics.
- If, however, two Belgian residents get married in Ireland, the marriage will be included in the marriage statistics of both Belgium and Ireland.

A Case 4-type marriage can be in the statistics of 0, 1, 2 or 3 countries. An example is given of all four situations:

- If an Irish and a British resident get married in Belgium, the marriage will not be included in the marriage statistics of any country.
- If a Belgian and an Irish resident get married in Luxembourg, their marriage will only be included in the marriage statistics of Belgium.
- If a Belgian and a Dutch resident get married in Luxembourg, their marriage will be included in both the Belgian and Netherlands marriage statistics.
- If a Belgian and a Dutch resident get married in Ireland, their marriage will be included in the marriage statistics of Belgium, Netherlands and Ireland.

Table 4.5 Marriages performed abroad and marriages of non-residents

	Marriages performed abroad included in national statistics		Marriages of non-residents included in national statistics	
	Yes	No	Yes	No
A		x		x
B	x			x
BG	x			x
CY		x	x	
CZ	x			x
DK	x			x
EE	x			x
FIN	x			x
F	x		x	
D		x	x	
EL	x		x	
HU	x		x	
IS	x			x
IRL		x	x	
I	x		x	
LV	x			x
LI	x			x
LT	x			x
L	x			x
MT	x			x
NL	x			x
NO	x			x
PL	x			x
P		x	x	
RO	x			x
SK	x			x
SI	x			x
E	x		x	
S	x			x
CH	x			x
UK		x	x	

4.5 Quality of marriage registration

In general the registration of marriages is reported to be complete and accurate. However, a small number of the countries described their registrations as ´acceptable´ or ´fairly good´. Marriages that are contracted abroad are sometimes reported with delay.

4.6 Living arrangements other than marriage

4.6.1 Types of living arrangements other than marriage

Since the 1960s living arrangements other than marriage have become more common in the countries of Europe. In the northern countries such living arrangements became common practice many years earlier than, for instance, in the Mediterranean countries or Ireland. Some countries have fully or partially legalised living arrangements other than marriage, and allow such couples to be registered in a more or less similar way to married couples. In other countries, living arrangements other than marriage are no longer forbidden or neglected, but registration — if any — remains poor.

It should be noted that the cohabitation of same-sex couples or couples of the opposite sex is practised in all countries, although in most it is not recognised or officially registered. However, such relationships are covered by population censuses in a number of countries.

4.6.2 Registration of living arrangements other than marriage

Registration of living arrangements other than marriage, such as registered partnerships and same-sex partnerships, exists in only a few countries (see Table 4.6). Moreover, regulatory frameworks to cover such arrangements have existed for only a short period of time. In Belgium, Denmark, Finland, Germany, Iceland, Norway and Sweden, registered partnerships are intended exclusively for couples of the same sex. However, in France and the Netherlands registered partnerships are also allowed between men and women. In Iceland registered partnerships have not been introduced, but the rights and duties of persons living in a heterosexual consensual union are stated in several legal acts.

In Belgium, Denmark, Finland, Germany, Iceland and Netherlands, partnerships are registered by the local registrar. In France this is done by the *Tribunal d'instance* (magistrates' court), while in Norway and Sweden it is done by the district court.

Slovenia reports that men and women who cohabit in long-lasting relationship have the same rights as married couples under the Matrimony and Family Relations Act. However, data on cohabiting couples are not collected or recorded in registers.

The Netherlands is the only country in which same-sex couples can get married officially. Such marriages are registered by the local registrar. Same-sex marriages are also scheduled to be introduced in Belgium.

Registered partnerships or marriages of same sex couples that are contracted abroad are often not officially recognised.

Table 4.6 Living arrangements other than marriage

	Legal status	Type	Registration done by
A	No		
B	Yes	Registered partnerships	Civil registration
BG	Yes	Living together	They are not registered, but considered as de facto marriages and counted only during population censuses
CY	No		
CZ	No		
DK	Yes	Registered partnerships	Municipalities
EE	No		
FIN	Yes	Registered partnerships	Civil registration
F	Yes	Registered partnerships	Registrar at magistrates' court
D	Yes	Registered partnerships	Depends on regulation of each federal state; mostly registrars or other local authority
EL	No		
HU	No		
IS	Yes	Formal consensual unions & same-sex partnerships	Civil registration
IRL	No		
I	No		
LV	No		
LI	No		
LT	No		
L	No		
MT	No		
NL	Yes	Registered partnerships and same-sex marriages	Local registrar
NO	Yes	Registered partnerships	Ceremony performed by the district court judge, report sent to the local population registry
PL	No		
P	No		
RO	No		
SK	No		
SI [1)]	Yes		
E	No		
S	Yes	Registered partnerships	Judge at the district court or other persons selected by the county administrative board
CH	No		
UK	No		

[1)] No data is being collected on this.

4.7 Marriage indicators

4.7.1 Mean age at marriage

All 31 countries except Liechtenstein produce figures on age at first marriage and age at marriage (see Table 4.7). In the latter figure, all (first, second, third, ..) marriages are included.

Three countries restrict themselves to first marriages, in the sense that mean age at marriage is produced only for first marriages. These countries are Czech Republic, Spain and Lithuania. In the Czech Republic, indicators are produced for single, widowed and divorced persons separately, but not for all marriages together. On the other hand, Malta is the only country that calculates mean age at marriage irrespective of the previous marital status, while the mean age at first marriage is not available.

Mean age at marriage can be calculated by two different methods, i.e. based on events and based on rates. Both methods are described in Appendix II.

Most of the countries (22 in number) that produce mean ages for both first and all marriages are consistent in their way of calculating, i.e. both indicators are calculated via the same method.

- 15 countries that calculate mean ages for both first and all marriages in a consistent way apply the event-based method. These countries are Belgium, Bulgaria, Denmark, Germany, Greece, Iceland, Ireland, Latvia, Luxembourg, Poland, Portugal, Romania, Slovak Republic, Sweden and United Kingdom.
- Four countries (Estonia, Finland, Italy and Switzerland) produce mean age at marriage exclusively based on rates, for first and all marriages.
- In three countries (France, Netherlands and Norway), both methods are applied for both types of mean age.

The remaining four countries that produce mean ages for both first and all marriages can be grouped as follows:

- Austria and Cyprus calculate mean age at first marriage according to both calculation methods, but restrict themselves to an event-based mean age for all marriages.
- Hungary produces rate-based mean age at first marriage, but applies both calculation methods in respect of all marriages.
- In Slovenia event-based mean ages are computed for first marriages, but both methods are used in respect of all marriages.

With respect to the age definition, all countries except Latvia use age in completed years (age at last birthday). Eleven countries (Denmark, France, Germany, Luxembourg, Netherlands, Norway, Poland, Slovak Republic, Spain, Sweden and Switzerland) also apply age reached during the calendar year (age at 31 December). France indicates that it uses age reached during the year in computing rate-based mean age at marriage, and age in completed years in computing event-based mean age at marriage.

Table 4.7 Mean age at marriage

	Calculation of mean age at first marriage		Age at first marriage		Calculation of mean age at marriage		Age at marriage	
	Rate-based	Event-based	Age completed	Age reached during the calendar year	Rate-based	Event-based	Age completed	Age reached during the calendar year
A	x	x	x			x	x	
B		x	x			x	x	
BG		x	x			x	x	
CY	x	x	x			x	x	
CZ	x	x	x		-	-	-	-
DK		x	x			x	x	
EE	x		x		x		x	
FIN	x		x		x		x	
F	x	x	x (event-based)	x (rate-based)	x	x	x (event-based)	x (rate-based)
D		x	x			x	x	
EL		x	x			x	x	
HU	x		x		x	x	x	
IS		x	x			x	x	
IRL		x	x			x	x	
I	x		x		x		x	
LV		x		x		x		x
LI	-	-	-	-	-	-	-	-
LT	x		x		-	-	-	-
L		x	x			x	x	
MT	-	-	-	-		x		x
NL	x	x		x	x	x		x
NO		x		x		x		x
PL		x	x			x	x	
P		x	x			x	x	
RO		x	x			x	x	
SK		x	x			x	x	
SI		x	x		x	x	x	
E	x		x		-	-	-	-
S		x	x			x	x	
CH	x		x		x		x	
UK		x	x			x	x	

- Not applicable.

Table 4.8 Age definition of marriages

	Age completed	Age reached during the calendar year
A	x	
B	x	
BG	x	
CY	x	
CZ	x	
DK	x	x
EE	x	
FIN	x	
F	x	x
D	x	x
EL	x	
HU	x	
IS	x	
IRL	x	
I	x	
LV		x
LI	x	
LT	x	
L	x	x
MT	x	
NL	x	x
NO	x	x
PL	x	x
P	x	
RO	x	
SK	x	x
SI	x	
E	x	x
S	x	x
CH	x	x
UK	x	

Table 4.9 Total First Marriage Rate (TFMR)

	Available for both sexes		Age						Method for calculating ASFMR's	
					Lowest age		Highest age			
	Yes	No	Single ages	5 year age groups	Males	Females	Males	Females	Square [1]	Parallelogram with vertical sides [2]
A	x		x		15	14	49	49	x	
B	-	-	-	-	-	-	-	-	-	-
BG				x	-	16	-	49	x	
CY	x		x		15	15	49	49	x	
CZ	x		x		16	16	49	49	x	
DK		x (females)	x	x		15		49	x	
EE	x			x	15	15	49	49	x	
FIN	x		x		15	15	60	60	x	
F	x		x		17	15	49	49		x
D	x		x		16	16	49	49	x	
EL	x			x	15	15	75+	75+	x	
HU	x		x		15	15	59	49	x	
IS	x			x	15-19	15-19	60+	60+	x	
IRL	x		x		16	16	75+	75+	x	
I	x		x		16	16	49	49	x	
LV	x			x	15	15	49	49	x	
LI	-	-	-	-	-	-	-	-	-	-
LT	x		x		15	15	49	49	x	
L	x		x	x	18	15	all ages	all ages	x	
MT	-	-	-	-	-	-	-	-	-	-
NL	x		x		15	15	all ages	all ages		x
NO	x			x	15	15	49	49		x
PL	x		x		15	15	49	49	x	
P	x			x	15	15	49	49	x	
RO	x			x	<20	<20	60+	60+		x
SK	-	-	-	-	-	-	-	-	-	-
SI	x			x	15	15	49	49	x	
E	x		x		14	14	60	60	x	
S	x		x		20	20	49	44	x	
CH	x		x		15	15	49	49	x	
UK (E+W)	x			x	<20	<20	55+	55+	x	
UK (NI)	-	-	-	-	-	-	-	-	-	-
UK (SC)	-	-	-	-	-	-	-	-	-	-

[1] Square: marriages in the same year to persons who had the same age in completed years at the time of marriage (members of two cohorts).
[2] Parallelogram with vertical sides: marriages in the same year to persons who reached the same birthday during the year of marriage (members of the same cohort).
- Not applicable

4.7.2 Total first marriage rate (TFMR)

Six countries (Belgium, Liechtenstein, Malta, Slovak Republic, Northern Ireland and Scotland) do not produce total first marriage rates (TFMRs). In most of the other countries separate TFMRs for males and females are produced. Bulgaria and Denmark, which produce TFMRs for females only, are the sole exceptions (see Table 4.9).

The number of countries that make use of single years of age is higher than that of the countries that produce TFMRs from five-year, age-group-specific marriage rates. Denmark and Luxembourg make use of both approaches.

The most common situation is that the TFMR sums from 15 (the youngest age) to 49 (the highest age). This is the case in ten countries, i.e. Cyprus, Denmark, Estonia, Latvia, Lithuania, Norway, Poland, Portugal, Slovenia and Switzerland. The ways of calculating the TFMR in the other countries show slight or major deviations from this pattern. In the following enumeration, only the deviations are mentioned. This means that ages that comply with the most common situation (youngest age of 15, oldest age of 49) are not mentioned.

- In Austria the youngest age for females is 14.
- In Bulgaria the youngest age for females is 16.
- In Czech Republic, Germany, and Italy the youngest age for both males and females is 16.
- In Finland the highest age for both males and females is 60.
- In France the youngest age for males is 17.
- In Greece the highest age for both males and females is 75+.
- In Hungary the highest age for males is 59.
- In Iceland the highest age is 60 for both sexes.
- In Ireland the youngest age for both sexes is 16, while the highest age is 75 for both males and females.
- In Luxembourg the youngest age for males is 18.
- In Luxembourg and the Netherlands all available ages are used.
- In Romania and England and Wales the highest age for both sexes is 60.
- In Spain the youngest age for both males and females is 14.
- In Sweden the youngest age for both sexes is 20, while the highest age for females is 44.

In most countries, the age-specific marriage rates used to compute the TFMR are produced according to the so-called square method (see Appendix I). In this method the age-specific marriage rate is calculated by relating the number of marrying persons of a certain age (in completed years) to the average number of residents of that age (also in completed years). A different method is the parallelogram with vertical sides method. Computing an age-specific marriage rate in this way requires age to be defined as the age reached during the calendar year, irrespective of whether the marriage is before or after the birthday in that calendar year. Only France, Netherlands and Romania produce age-specific marriage rates in this manner. No country makes use of the parallelogram with horizontal sides method.

Table 5.1 Divorce regulations

	Divorce is possible	Divorce possible or statistics on divorce available
A	Yes	For people without religion: 1870. For catholics: 1938. Statistics since 1884
B	Yes	1840
BG	Yes	Statistics since 1928
CY	Yes	Statistics since 1966
CZ	Yes	1919
DK	Yes	Before 1900
EE	Yes	1926
FIN	Yes	1878
F	Yes	1791
D	Yes	Statistics since 1895
EL	Yes	1945
HU	Yes	Statistics since 1876
IS	Yes	16th century
IRL	Yes	1995
I	Yes	1970
LV	Yes	1921
LI	Yes	1974
LT	Yes	1940
L	Yes	1794
MT	No	-
NL	Yes	1804
NO	Yes	Statistics since 1871
PL	Yes	Statistics since 1918
P	Yes	1975
RO	Yes	Statistics since 1930
SK	Yes	1894
SI	Yes	1946
E	Yes	1981
S	Yes	Statistics since 1831
CH	Yes	First federal law passed in 1874. Statistics since 1876
UK (E+W)	Yes	1858
UK (NI)	Yes	1939
UK (SC)	Yes	1976

- Not applicable.

5 Divorces

5.1 Divorce regulations

Divorce is possible in all countries except Malta (see Table 5.1). The oldest regulations were made in Iceland, where divorce has been possible since the 16th century. In France divorce was introduced in 1791 and in Luxembourg in 1794. In Austria, Belgium, Denmark, Finland, Germany, Hungary, Netherlands, Norway, Slovak Republic, Sweden, Switzerland and England and Wales, divorce was made possible in the 19th century. In Ireland (1995), Italy (1970), Liechtenstein (1974), Portugal (1975), Spain (1981) and Scotland (1976), divorce has only been possible since relatively recently.

Table 5.2 Conditions for a divorce

	Decision by court	By request of one or both partners	Structural disruption	Adultery	Lower limit of marriage duration	Lower limit of duration living apart	Interests of other partner must be met	No prospect of reconciliation	Proper provision for dependents
A	x	x	x	x		x		x	
B	x	x	x	x					
BG	x	x	x	x				x	x
CY	x	x							
CZ	x	x	x		x	x	x	x	x
DK	x	x	x	x					
EE	x	x							
FIN	x	x							
F	x	x	x			x			
D	x	x				x		x	
EL [1)]	x	x	x						
HU	x	x	x						
IS	x	x	x	x		x		x	
IRL	x	x	x		x	x		x	x
I	x	x				x			
LV	x	x		x					
LI	x	x	x	x		x			
LT	x	x	x	x		x			
L	x	x	x	x					
MT	-	-	-	-	-	-	-	-	-
NL	x	x	x						
NO	x					x			x
PL	x	x	x			x		x	
P [2)]	x	x							
RO	x		x					x	
SK	x	x	x		x	x	x	x	x
SI	x	x	x						x
E	x	x		x	x	x	x	x	x
S	x	x							
CH	x	x				x			
UK	x	x	x	x		x			

[1)] Further conditions are: dissappearance, presumption of death; mutual consent divorce.
[2)] By request of one partner, the court takes a decision; by request of both partners a civil registration is sufficient.
- Not applicable.

5.2 Conditions for a divorce

In all countries decisions about divorces are taken by the court (see Table 5.2). However, for a number of countries additional remarks can be made, as follows:

- In Portugal a decision can be taken by the civil registrar if both spouses agree to getting a divorce. In most countries, structural disruption of the marriage and no prospect of reconciliation are necessary conditions for a divorce.
- In Austria, Belgium, Bulgaria, Denmark, Iceland, Latvia, Liechtenstein, Lithuania, Luxembourg, Spain and United Kingdom, adultery is a reason to grant a divorce.
- Only in four countries (Czech Republic, Ireland, Slovak Republic and Spain) is a lower limit of marriage duration set.
- In 15 countries (Austria, Czech Republic, France, Germany, Iceland, Ireland, Italy, Liechtenstein, Lithuania, Norway, Poland, Slovak Republic, Spain, Switzerland and United Kingdom), there are regulations regarding the minimum period that the spouses must have lived apart in order to have a divorce granted. This minimum period varies widely among countries.

Seven countries (Bulgaria, Czech Republic, Ireland, Norway, Slovak Republic, Slovenia and Spain) require proper provisions for dependent children before a divorce is granted.

Table 5.3 Registrations of a divorce

	No registration	Registration at the court	Registration in population register	Registration on marriage certificate	Various demographic data
A		x	x[1)]	x	x
B		x	x	x	
BG		x	x	x	x
CY	x				
CZ		x	x		x
DK		x	x		
EE		x	x		x
FIN		x	x	x	x
F		x		x	x
D		x	x[1)]		x
EL		x	x	x	
HU		x	x	x	x
IS			x		
IRL	x				
I		x	x		x
LV		x	x	x	x
LI		x	x		
LT		x	x	x	x
L		x	x	x	
MT	-	-	-	-	-
NL		x	x	x	x
NO		x	x	x	x
PL		x			x
P		x	x	x	x
RO		x			x
SK		x[2)]	x[3)]	x[4)]	x
SI		x	x	x	x
E		x		x	
S [5)]		x	x		x
CH		x			x
UK		x		x	x

[1)] Registration in birth register.
[2)] The court decides about divorce but does not register it.
[3)] Through the authority in the place of permanent residence.
[4)] Registered by the Ward Register Office regardless of where the marriage was concluded.
[5)] The registration is passed on from the court to the Tax Authority.
The Tax Authority sends this information to, for example, the Population register.

5.3 Registration of divorces

In almost all countries divorces are registered at the court (see Table 5.3). Iceland, Cyprus and Ireland are the only exceptions. A number of countries also register the divorce on the marriage certificate, or on the birth certificate. In Sweden the information about divorces is sent to the Tax Authority, which forwards it to the Swedish population register.

Table 5.4 Divorces of non-residents

	Included in national statistics	
	Yes	No
A		x
B		x
BG		x
CY	x	
CZ		x
DK		x
EE [1)]		x
FIN		x
F	x	
D		x
EL	x	
HU	x	
IS		x
IRL		x
I	x	
LV		x
LI	x	
LT		x
L		x
MT	-	-
NL		x
NO		x
PL		x
P	x	
RO		x
SK		x
SI [2)]		x
E	x	
S		x
CH		x
UK (E+W)		x
UK (NI)	x	
UK (SC)		x

[1)] If one of the partners is a non-resident his / her data will appear in statistics, since every divorce has two partners and number of divorces is equal for males and females.

[2)] At least one person has to be an inhabitant of the Republic of Slovenia.

5.4 Divorces of non-residents

In Cyprus, France, Greece, Hungary, Italy, Liechtenstein, Portugal, Spain and Northern Ireland, divorces of non-residents are included in the national statistics on divorces (see Table 5.4), while in the other countries they are not. However, in the latter countries, divorce statistics usually include divorces where at least one of the former spouses is a resident of that country. Summed over all countries, this may lead to an overestimation of the number of divorces. In this respect these statistics are comparable to those on marriages.

Table 5.5 Age definition of divorces

	Age completed	Age reached during the calendar year	Age is not collected
A	x		
B	x		
BG	x		
CY			x
CZ	x		
DK	x	x	
EE	x	x	
FIN	x	x	
F		x	
D	x	x	
EL		x	
HU	x		
IS	x		
IRL			x
I	x		
LV		x	
LI	x		
LT	x		
L	x	x	
MT	-	-	-
NL	x	x	
NO	x		
PL	x		
P	x		
RO	x		
SK	x	x	
SI	x		
E	x	x	
S	x	x	
CH	x	x	
UK	x		

5.5 Age definitions of divorces

In divorce statistics, most countries use the age at the observation date (see Table 5.5). However, France, Greece and Latvia use the age reached during the year (age at 31 December), while Denmark, Estonia, Finland, Germany, Luxembourg, Netherlands, Slovak Republic, Spain, Sweden and Switzerland use both definitions. The divorce statistics in Cyprus and Ireland do not have information by age.

Appendix I:
Age-specific demographic rates

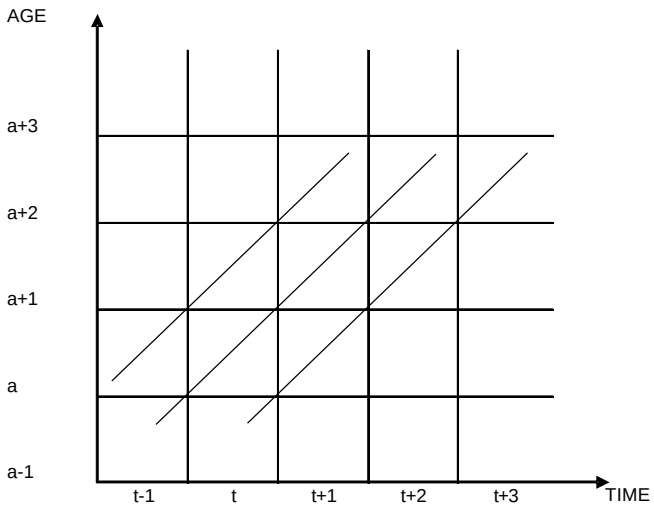
Age-specific demographic rates

All 31 countries were asked to indicate how the following demographic rates are calculated:

- Total fertility rate
- Cohort fertility rate
- Mean age of mother at birth of first child
- Mean age of mother at birth of child
- Mean age at first marriage
- Mean age at marriage
- First-marriage rate
- Death rates
- Infant death rates
- Life expectancy at birth

Several of these rates have in common that they are the ratio of a number of persons experiencing a demographic event (here the birth of a child, death or marriage) to the number of persons who might experience that event (the so-called "risk population"). Other rates are composed of a number of such ratio-type rates. The ratio-type rates at issue are age-specific birth rates, age-specific death rates and age-specific marriage rates.

There are three main ways to define the denominator and numerator of ratio-type rates. These ways can be clarified by means of a Lexis diagram. A Lexis diagram is a two-dimensional plane where the horizontal axis represents time (*t*) and the vertical axis represents age (*a*). Both time and age are presented as continuous variables. In this diagram a lifeline is drawn for each person. A lifeline is a straight line which starts at a point on the horizontal axis (the date of birth). The angle between a lifeline and either axis is 45°. A lifeline ends when the person dies. The horizontal coordinate of that point is the date when the person dies; while the vertical component is the age at death. Each moment in the life of a person is a point on his or her lifeline. That point gives his or her age at that moment and the calendar date. In particular, all moments at which a person experiences a demographic event can be attached to a point on his or her lifeline.

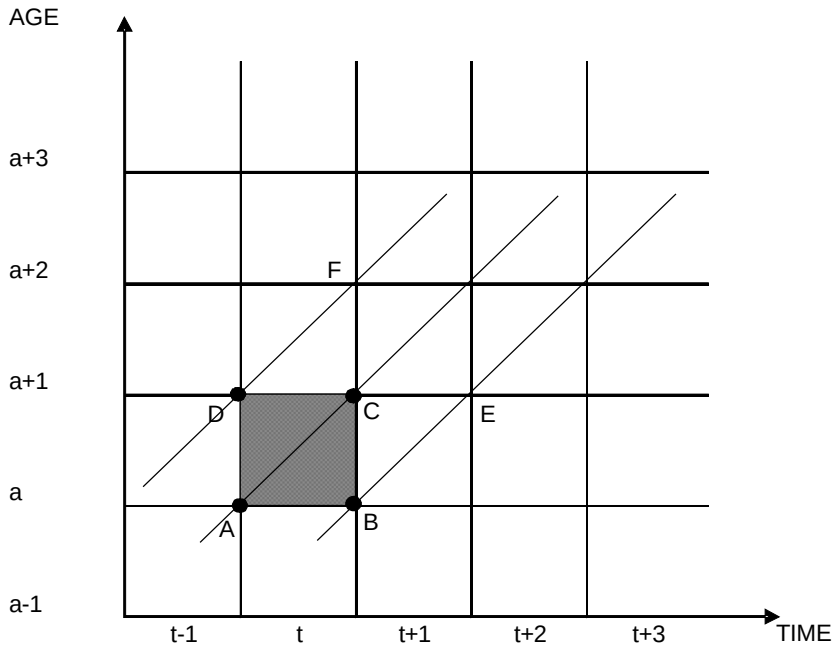


Here, the way of defining age-specific demographic rates is described for age-specific birth rates. The same text holds, *mutatis mutandis,* for death rates and for marriage rates. It should be noted that birth rates usually refer to females, and death rates and marriage rates to males and females separately.

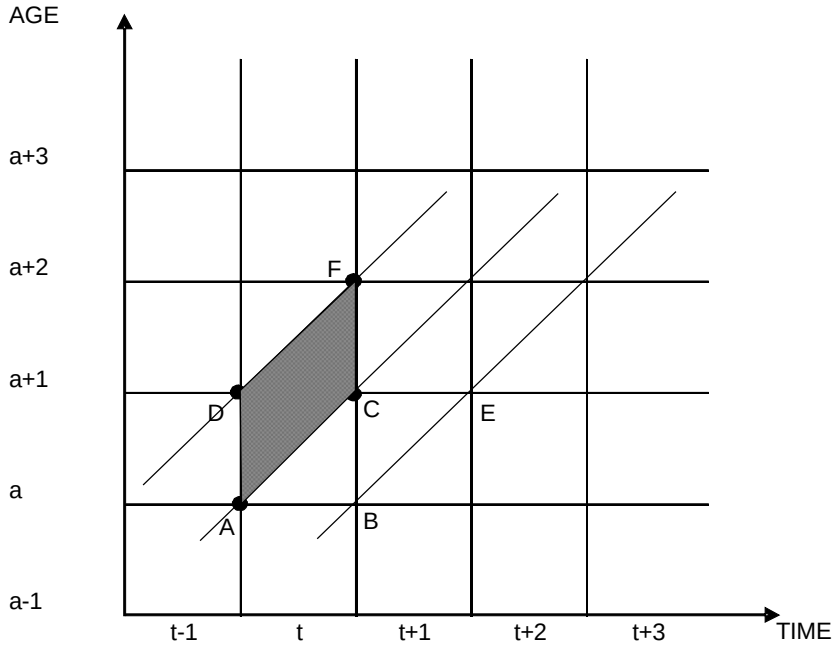
The numerator of an age-specific birth rate includes all females who give birth to a child at a given age at a given time. Here age and time can be chosen in different ways and in different combinations.

Time is usually chosen as a calendar year. The most common ways of defining age are the age reached at the most recent birthday (the age-last-birthday or the age at the observation date) and the age that is, will or would be reached at the birthday in a given calendar year (the age on 31 December or the age reached during the year of observation). The people to be included in the numerator of the age-specific birth rate can be chosen in three different ways (here *a* is the age in question):

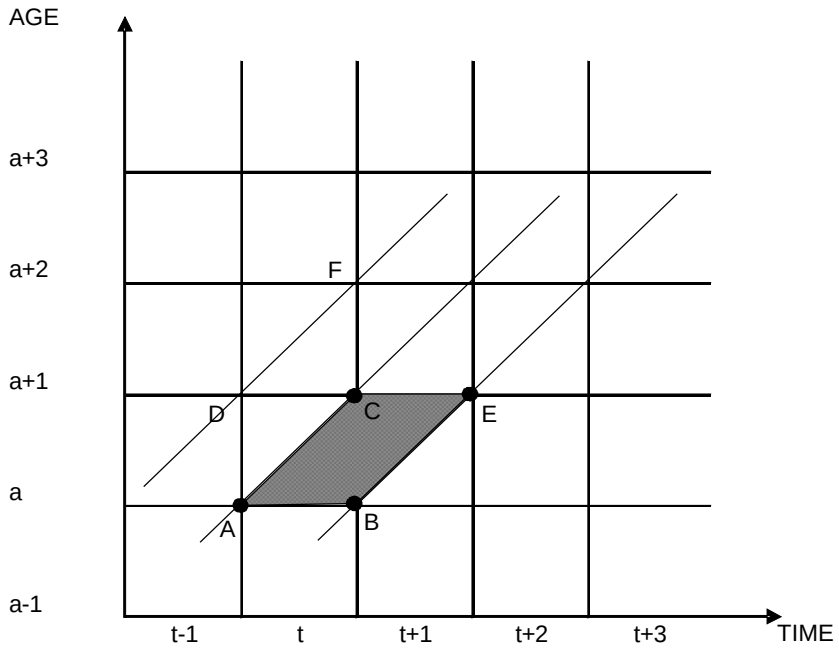
1. All females who give birth to a child during the calendar year *t* and who reached the age *a* at their most recent birthday. These are the females whose point on the lifeline relating to the birth is in the square ABCD. This method is referred to as the square method.



2. All females who give birth to a child during the calendar year *t* and who have reached or will reach the age *a* in that calendar year. These are the females whose point on the lifeline relating to the birth is in the parallelogram ACFD. This method is referred to as the parallel method with vertical sides.



3. All females who were born in the calendar year *t-a* and who give birth to a child between their a^{th} and their $(a+1)^{th}$ birthday. These are the females whose point on the lifeline relating to the birth is in the parallelogram ABEC. This method is referred to as the parallel method with horizontal sides.



Given the age definition, the denominator (the risk population) should be chosen appropriately. Although there are several ways to do so, we will focus on the most simple variant, i.e. the average population that corresponds with the chosen numerator.

The denominator in the square method is defined to include all females who reach their a^{th} birthday during the year *t*. Given that population figures by sex and age are usually available as per 1 January of each calendar year, this figure is estimated as the arithmetic mean of the number of females aged *a* on 1 January of calendar year *t* and the number of females aged *a* on 1 January of age *t+1*. In the Lexis diagram, this is the arithmetic mean of the number of lifelines that intersect AD and the number of lifelines that intersect BC.

In the parallel method with vertical lines, the denominator is defined as the arithmetic mean of the number of females aged *a-1* on 1 January of the calendar year *t* and the number of females aged *a* on 1 January of the year *t+1*. In the Lexis diagram, this is the arithmetic mean of the number of lifelines that intersect AD and the number of lifelines that intersect CF.

In the parallel method with horizontal lines, the denominator is defined as the arithmetic mean of the number of females who reach their a^{th} birthday during the calendar year *t* and the number of people who reach their $(a+1)^{th}$ birthday during the year *t+1*. In the Lexis diagram, this is the arithmetic mean of the number of lifelines that intersect AB and the number of lifelines that intersect CE.

All three methods have their pros and cons. Both the numerator and the denominator of the rates that are based on the square method include females who are part of the same birth cohort, which means that they were born in the same calendar year. So when studying cohort fertility, the same birth rates can be applied. The parallel method with vertical sides relates to births that occur in one calendar year, but a drawback of this method is the wide range of ages of the mothers. The oldest mother in the numerator of this rate is two years older than the youngest mother. The parallel method with horizontal sides does not have this drawback, but there the time-lag between the earliest and the last birth is two years. By consequence the rate refers to two calendar years instead of one.

In the square method the range between the youngest and the oldest age is one year, as is the range between the earliest and the last birth. These rates relate to births that occur during one calendar year. The drawback of this method is that the females in one rate are from two different birth cohorts. This means that the oldest female in the risk population (in the denominator of the rate) is two years older than the youngest female.

The same reasoning holds, *mutatis mutandis,* for age-specific death rates and age-specific marriage rates.

Appendix II:
Mean age, event-based and rate-based

Mean age, event-based and rate-based

The mean age of a mother at birth of child or mean age at marriage can be calculated in two different ways, i.e. as event-based and as rate-based. To calculate the mean age based on events, all ages at birth or marriage as observed in a population during a calendar year are added and then divided by the number of births or the number of marrying people.

Here, the way of calculating mean ages is described for marriages, but the same text holds, *mutatis mutandis*, for births. It should be noted that mean age at birth of child usually refers to females, and mean age at marriage to males and females separately.

In formula:

Event-based mean age at marriage = $\frac{\sum x \times N_{(x)}}{\sum N_{(x)}}$,

where
x = age
$N_{(x)}$ = number of males/females who marry at age x.

If age is measured as the number of completed years (age at last birthday), x should be raised by 0.5.

Event-based indicators have the disadvantage that they are influenced by fluctuations in cohort size. The weight of the age that corresponds to a big cohort is relatively large, while for a small cohort it is relatively small. This may hamper comparisons between regions, countries and periods. In order to exclude the influence of cohort size, mean ages can be calculated on the basis of age-specific rates. In formula:

Rate-based mean age at marriage = $\frac{\sum x \times M_{(x)}}{\sum M_{(x)}}$,

where
x = age
$M_{(x)}$ = age-specific marriage rate at age x.

Again, if age is measured as the number of completed years (age at last birthday), x should be raised by 0.5.

Mean age at first marriage based on rates can also be interpreted as the mean age at marriage in a nuptuality table with two statuses (never married, married), where external migration, mortality and divorce are absent. In such a table the population size is the same for all ages, since under the assumptions made, neither increment nor decrement is possible. The mean age at marriage in the table population is calculated by weighing the individual ages against the number of marrying people per age. The numbers of marrying people in the table are equal to the corresponding age-specific marriage rates, multiplied by the size of the initial cohort. It follows that the mean age at marriage in this table is equal to the rate-based mean age at marriage in the formula above.

In a similar way, rate-based mean age of the mother at birth of first child can be interpreted as the mean age of the mother in a fertility table with two statuses (childless, with at least one child), with no external migration and no mortality.

Neither rate-based mean age at marriage nor rate-based mean age of the mother at birth of child irrespective of birth order can be interpreted in terms of simple nuptuality or fertility tables as presented here. This explains why rate-based mean ages for all marriages and for all births are less common.

Appendix III:
List of country codes

List of country codes

A	Austria
B	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
D	Federal Republic of Germany
DK	Denmark
E	Spain
EE	Estonia
EL	Greece
F	France
FIN	Finland
HU	Hungary
I	Italy
IRL	Ireland
IS	Iceland
L	Luxembourg
LI	Liechtenstein
LT	Lithuania
LV	Latvia
MT	Malta
NL	Netherlands
NO	Norway
P	Portugal
PL	Poland
RO	Romania
S	Sweden
SI	Slovenia
SK	Slovak Republic
UK	United Kingdom
UK (E+W)	England + Wales
UK (NI)	Northern Ireland
UK (SC)	Scotland

Appendix IV: Glossary

GLOSSARY

A

ABORTION
Induced expulsion of the foetus during the first part of a pregnancy, permitted by the law for health or other reasons.

ADMINISTRATIVE CORRECTIONS
All changes in the population size that cannot be classified as births, deaths, immigration or emigration.

AGE AT LAST BIRTHDAY
Age expressed as the number of birthday anniversaries passed on the date of reference. As this is the same as the number of completed years lived by a person, it is also referred to as « age in completed years ».

AGE REACHED DURING THE YEAR
The number of complete years lived at the end of the calendar year in question. For example, under this age concept, a person born in 1951 will be 52 on each day of the calendar year 2003, irrespective of his or her birthday. This is the case for all of the 1971 generation. The age reached during the year is also equal to the year in question minus the year of birth (2003-1951=52).

AVERAGE (OR MID-YEAR OR MEAN) POPULATION
The average population during a calendar year is generally calculated as the arithmetic mean of the population on 1 January of two consecutive years (it is also referred to as the mean population). However, some countries calculate it differently, using the population based on registers or estimating it on a date close to 1 July (mid-year population).

B

BIRTH ORDER
Ranking of a newborn baby in relation to all of the mother's previous live births, i.e. the number of previous live births plus the birth that has just occurred. For some countries, only the birth order within the current marriage is available.

C

CIVIL REGISTRATION
Civil registration is the system for registering all vital events such as births, deaths, marriages, divorces and other events that a person encounters during his/her life.

COHORT
A group of people sharing a common demographic experience who are observed through time. The cohort of persons born in the same year is known as a generation, while the cohort of persons married in the same year is called a marriage cohort or a marriage generation.

COMPLETED FERTILITY
The mean number of children born to women of a given generation at the end of their childbearing years. This is calculated by adding the fertility rates by age of the mother observed for successive years, when the cohort has reached the age in question (in general, only ages between 15 and 49 years are considered). In practice, the fertility rates for older women can be estimated using the rates observed for previous generations, without waiting for the cohort to reach the end of the reproductive period.

COMPONENT METHOD
Method to determine the population size at a given moment with the aid of changes in the population. Given the size of the population on a given date, usually 1 January of a calendar year *t*, the numbers of births and immigrants during the calendar year *t* are added and the number of deaths and emigrants during that year subtracted. The resulting figure is the number of inhabitants on 1 January of calendar year *t+1*. The data collected in the population census are usually the basis for this method.

D

DE FACTO POPULATION
The *de facto* population consists of all persons who are present in a given area on a reference date. It includes, for instance, all foreigners on holiday in that area on the reference date and excludes residents on holiday in another area.

DE JURE POPULATION
The *de jure* population consists of all persons who habitually live in a given area on a reference date. It excludes, for instance, all foreigners on holiday in that area on the reference date and includes residents on holiday in another area. The *de jure* population is also called the resident population.

DEMOGRAPHIC RATE
A demographic rate gives the number of people who experience a demographic event during a given period of time in relation to a fixed number from a population at risk. As a rule, this fixed number is 1 000, although in practice other numbers such as 10 000 or 100 000 are used as well.

DIVORCE RATES BY DURATION OF MARRIAGE
For each calendar year *n*, provided the number of divorces ranked according to the duration of marriage in years *x* is available, divorce rates by duration of marriage can be calculated by relating the number of divorces at the end of *x* years of marriage to the number of marriages in year *n-x*.

E

EARLY NEONATAL MORTALITY RATE
The ratio of the number of deaths of children aged under one week during the year to the number of live births in that year. The value is expressed per 1000 live births.

EMIGRANTS
Persons travelling abroad with the intention of residing there for a certain minimum period, for example 12 months in the case of Dutch emigrants leaving the Netherlands. Germans become emigrants when they leave their occupied residence. A Briton becomes an emigrant when intending to live abroad for more than 12 months, having being resident in the UK for the previous 12 months. An Irish person becomes an emigrant when he or she is already resident abroad, having been resident in Ireland one year previously. In 1976, the United Nations drew up recommendations on international migration statistics. Unfortunately, few countries follow them.

EVER-MARRIED
Individuals whose marital status on the date in question is married, widowed or divorced. Ever-married persons have therefore been married at least once on the date in question.

F
FERTILITY RATES BY AGE OF THE MOTHER (AGE-SPECIFIC FERTILITY RATE)
The number of births to mothers of age *x* in relation to the average female population of age *x.* Depending on the country, the age is either the age reached during the year or the age at last birthday. In order to produce comparable data between countries, Eurostat converts the rates established using the age at last birthday into rates based on the age reached during the year.

FIRST-MARRIAGE RATES BY AGE
The number of first marriages of women (or men) of age *x* in relation to the average female (or male) population of age *x*. Depending on the country, the age is either the age reached during the year or the age at last birthday. In order to produce coherent data, Eurostat converts the rates established using the age at last birthday into rates based on the age reached during the year.

G
GENERATION
A group of persons born in the same period, generally taken as a calendar year.

I
IMMIGRANTS
Either non-nationals arriving from abroad or nationals returning from abroad with the intention of residing in the country for a certain period. This period varies from one month for a Dutch person returning to the Netherlands to 12 months for any person entering the United Kingdom.

INFANT MORTALITY RATE
The ratio of the number of deaths of children under one year of age during the year to the number of live births in that year. The value is expressed per 1000 live births.

INTERNATIONAL MIGRANT
Any person who changes his or her country of usual residence. A person's country of usual residence is that in which the person lives, i.e. the country in which the person has a place to live where he or she normally spends the daily period of rest.

L

LIVE BIRTHS
Births of children that showed any sign of life. These comprise the number of births excluding stillbirths (total births include live births and stillbirths).

LIFE EXPECTANCY AT BIRTH
The mean number of years that a newborn child can expect to live if subjected throughout his or her life to the current mortality conditions (age-specific probabilities of dying).

LIFE EXPECTANCY AT CERTAIN AGES
The mean number of years still to be lived by a person who has reached a certain exact age, if subjected throughout the rest of his or her life to the current mortality conditions (age-specific probabilities of dying).

M

MARITAL STATUS
Marital status is the legally defined marital state. There are several types of marital status: single, married, widowed, divorced, separated and, in certain cases, registered partnership.

MARRIAGE COHORT
Group (cohort) of persons married in the same calendar year.

MEAN AGE OF WOMEN AT CHILDBEARING
The mean age of women when their children are born.
For a given calendar year, the mean age of women at childbearing can be calculated using the fertility rates by age (in general, the reproductive period is between 15 and 49 years of age). Calculated in this way from the fertility rates by age, the mean age is not weighted, i.e. the different numbers of mothers at each age are not taken into account.

MEAN AGE OF WOMEN AT CHILDBEARING BY GENERATION
The mean age of women from the same generation when their children are born. The mean age is normally calculated when women have reached the end of their childbearing years (at age 50). The mean age of women at childbearing for a given calendar year comprises the fertility rates by age for women of different generations. By adding the rates for each of the calendar years lived by the same generation from the beginning of their childbearing years (at 15 years of age), the mean age at childbearing for this generation can be obtained. In principle, this calculation cannot be made until the generation has reached the end of its childbearing period, at around 50 years of age, but in practice, the fertility rates for older women can be estimated using the rates observed for previous generations.

MEAN AGE OF WOMEN AT FIRST BIRTH BY GENERATION
This indicator is calculated in a similar way to the mean age of women at childbearing by generation, i.e. by adding the rates of first-order births by age reached for each of the calendar years lived by the same generation from the beginning of their childbearing years. In each instance, the number of first births to women of the age in question is related to the number of women of that age.

MEDIAN MARRIAGE DURATION AT DIVORCE BY MARRIAGE COHORT
The median marriage duration at divorce by marriage cohort is obtained by adding the series of divorce rates by duration of marriage for the marriage cohort under consideration until the cumulative value reaches 0.50. In practice, the divorce rates for advanced durations of marriage can be estimated using the rates for previous generations, without waiting for the married life of the cohort to be completely over.

MEDIAN MARRIAGE DURATION AT DIVORCE BY CALENDAR YEAR
The median marriage duration at divorce by calendar year is obtained by adding the series of divorce rates by duration of marriage for the calendar year under consideration until the cumulative value reaches 0.50.

N

NATIONALS
Citizens with the citizenship of the country in which they are actually living.

NATURAL INCREASE
The difference between the number of live births and the number of deaths during the year. The natural increase is negative (and then called natural decrease) when the number of deaths exceeds the number of births.

NEONATAL MORTALITY RATE
The ratio of the number of deaths of children under 28 days during the year to the number of live births in that year. The value is expressed per 1000 live births.

NET MIGRATION
The difference between immigration into and emigration from a given area during the year (net migration is negative when the number of emigrants exceeds the number of immigrants). Since most countries either do not have accurate figures on immigration and emigration or have no figures at all, net migration is generally estimated on the basis of the difference between population change and natural increase between two dates (in Eurostat's database it is then called *corrected net migration*). The statistics on net migration are therefore affected by all the statistical inaccuracies in the two components of this equation, especially population change.

NON-NATIONALS
Non-nationals of a given country are persons who do not have the nationality of that country on the date in question.

P

PARALLELOGRAM WITH HORIZONTAL SIDES METHOD

Method used to compute demographic rates of a certain demographic event, e.g. death or giving birth. The numerator consists of all persons who were born in a given calendar year *t* and who had a given age *a* in completed years (age last birthday) when they experienced that demographic event. The denominator is the arithmetic mean of the persons who reached the age *a* in completed years during the calendar year *t+a* and the number of persons who reached the age *a+1* during the calendar year *t+a+1*. The demographic event under study may take place in calendar year *t+a* or t+a+1.

PARALLELOGRAM WITH VERTICAL SIDES METHOD

Method used to compute demographic rates of a certain demographic event, e.g. death or giving birth. The numerator consists of all persons who were born in a given calendar year *t* and who experienced the demographic event during the calendar year *t+a*. The denominator is the arithmetic mean of the persons who were of completed age *a-1* on 1 January of the calendar year *t* and the number of persons who were of completed age *a* at the end of that calendar year. The demographic event may be experienced by people of age *a-1* and by people of age *a* (age in completed years), depending on whether the event takes place before or after the a^{th} birthday.

PERINATAL MORTALITY RATE

The ratio of the number of deaths of children under one week, and the stillbirths during the year, to the number of births in that year (including stillbirths). The value is expressed per 1000 births.

POPULATION CHANGE

The difference between the size of the population at the end and the beginning of a period. It is equal to the algebraic sum of natural increase and net migration (including corrections). There is negative change when both of these components are negative or when one is negative and has a higher absolute value than the other.

POPULATION ON 1 JANUARY

The inhabitants of a given area on 1 January of the year in question (or, in some cases, on 31 December of the previous year). The population is based either on data from the most recent census, adjusted by the components of population change produced since the last census, or on population registers.

PROBABILITY OF DYING

The probability that a woman or man of a given exact age will die during the period in question. In the case of annual probabilities, the denominator is the size of the generation of women (or men) who reach age *n* during the year in question, and the numerator is the number of women (or men) from this generation who die between age *n* and age *n+1*. Some of the deaths occur during the year in question, while other deaths occur the following year. The annual probability of dying by age therefore differs from the annual death rate by age because, in the latter case, the denominator is the average population of that age and the numerator is the number of persons of that age who die during the year (the age used can be either the age reached during the year or the age at last birthday).

PROPORTION OF EVER-MARRIED PEOPLE BY GENERATION
The proportion of individuals from the same generation who married at least once in their life. The sum of the first-marriage rates by age reached during the year, calculated for *n* calendar years for a generation, gives the proportion of persons in that generation who have entered into a first marriage during this period of *n* years. In practice, the first-marriage rates at advanced ages can be estimated using the rates for previous generations without waiting for the married life of the cohort to be completely over. This produces an estimate of the definitive proportion of ever-married people for this generation.

PROPORTION OF MARRIAGES DISSOLVED BY DIVORCE BY MARRIAGE COHORT
The sum of the divorce rates by duration of marriage, calculated for *n* calendar years for a marriage cohort, gives the proportion of marriages dissolved by divorce for that generation after *n* years. In practice, the divorce rates for advanced durations of marriage can be estimated using the rates for previous generations, without waiting for the married life of the cohort to be completely over. This produces an estimate of the definitive proportion of marriages that will end in divorce for this generation.

R

REGISTRAR
Official who registers official records of births, deaths, marriages and divorces. In some countries, the registrar registers other official documents such as registered partnerships, recognition of a child or acquisition of citizenship.

S

STILLBIRTHS
The expulsion or extraction from the mother of a dead foetus after the time at which it would normally be presumed capable of independent extra-uterine existence (commonly taken to be after 24 or 28 weeks of gestation). Infants who are born alive but die shortly after birth are excluded from this category.

SQUARE METHOD
Method used to compute demographic rates of a certain demographic event, e.g. death or giving birth. The numerator consists of all persons who experience that demographic event during a giving calendar year and who had a given age in completed years (age last birthday) at the time of that event. The denominator is the arithmetic mean of the persons who had that age in completed years at the beginning of the calendar year and the number of persons who had that age at the end of that calendar year.

T

TOTAL DIVORCE RATE

The mean number of divorces per marriage in a given year. This number is not weighted according to the structure of marriage duration, i.e. the size of the different marriage cohorts is assumed to be the same. The total divorce rate is computed by adding the divorce rates by duration of marriage for the year in question. It does not separate out the different marriage cohorts and is not the divorce rate of any specific marriage cohort; rather, it is the divorce rate of a hypothetical generation subjected at each age to the current marriage conditions.

TOTAL FERTILITY RATE

The mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year. This rate is therefore the completed fertility of a hypothetical generation, computed by adding the fertility rates by age for women in a given year (the number of women at each age is assumed to be the same). The total fertility rate is also used to indicate the replacement level fertility; in more highly developed countries, a rate of 2.1 is considered to be replacement level.

TOTAL FIRST-MARRIAGE RATE

The mean number of first marriages per woman (or man) in a given year. The total first-marriage rate is calculated by adding the first-marriage rates by age of women (or men) for the year in question, with the number of women (or men) at each age assumed to be the same. This rate does not separate out the different generations and is not the first-marriage rate of any specific generation; rather, it is the first-marriage rate of a hypothetical generation subjected at each age to the current marriage conditions.

TOTAL POPULATION

This can be either the population on 1 January or the average population during the year. Unless otherwise stipulated, the population on 1 January is used.

Appendix V:
Country-specific registration forms

Click here to access the registration forms.