

Befolknings- och välfärdsstatistik

The series Background facts presents background material for statistics produced by the Department of Population and Welfare Statistics at Statistics Sweden. Product descriptions, methodology reports and various statistic compilations are examples of background material that give an overview and facilitate the use of statistics.

Publications in the series Background facts on Population and Welfare Statistics

2001:1	Hälsoindex
2001:2	The role of official statistics in a democratic society: statistics as an investment- free for users
2001:3	Co-operations project "Population Statistics"
2001:4	Uppdatering av immigrationsuppgifter med anpassning till den nya RTB- strukturen
2001:5	Flergenerationsregistret – The Multi-Generation Register
2001:6	Utredning om komplettering och utvidgning av Flergenerationsregistret
2001:7	Konferens om välfärdsstatistik den 27 mars 2001
2002:1	Komplettering av Flergenerationsregistret – resultat från provregistrering av
	personakter över avlidna 1947 – 1967
2002:2	Ett nytt system för Register över totalbefolkningen. Bättre kvalitet och nya möjligheter – A new population register system. Better quality and new possibilities.
2002:3	Slutrapport: Översyn av SCB:s Intäkts- och kostandsundersökning för fler- bostadshus. Bilaga: Minnesanteckningar från programmet boende. Byggande och bebyggelse om IKU den 22 maj 2001.
2002:4	Befolkningens boende – idé till årlig sammanställning över nationell och interna- tionell boendestatistik
2002:5	Översyn av SCB:s Bostads- och Hyresundersökning (BHU)
2002:6	Kvalitetssäkringsprogram av postenkätundersökningar. BV/ENK:s kvalitetssäkringsprogram
2003:1	Longitudinellt barnregister
2003:2	Översyn av HBS (HUT, HBU, Utgiftsbarometern) inför 2003 års undersökning
2003:3	Manuell registrering eller skanning
2003:4	BV-avdelningens Utvecklingsplan 2003
2003:5	Flergenerationsregistret 2002, En beskrivning av innehåll och kvalitet
2003:5.1	Multi-Generation Register 2002, A description of contents and quality
2003:6	Barns hälsa – Förslag till utbyggnad av SCB:s årliga statistik om Barn och deras familjer
2003:7	Översyn av Outhyrda lägenheter i flerbostadshus 2002 - 2003-09-12
2003:8	Studie av bortfallet i 2000-års undersökning av levnadsförhållanden (ULF)
2003:9	Alternativa datainsamlingsmetoder för ULF
2003:10	Slutrapport från projektet för översyn av produktionssystemet för framställning av tabeller till publikationer
2003:11	Ensamstående och sammanboende i folkbokföringen, taxeringen och i verkligheten
Continued	on inside of the back cover!
These publ	ications and others can be ordered from:

Statistics Sweden, Publication Services, SE 701 89 ÖREBRO, Sweden phone +46 19 17 68 00 or fax +46 19 17 64 44.

You can also purchase our publications at our Statistics Shop: Karlavägen 100, Stockholm, Sweden **Background Facts**

Historic population register

Population and Welfare Statistics 2006:3

Statistics Sweden 2006

Background Facts

Population and Welfare Statistics 2006:3

Historic population register

Statistics Sweden
2006Previous publicationPrevious publication has been made since 2001ProducerSCB, Population and Welfare Department
Statistics Sweden,
701 89 ÖrebroInquiriesKarin Wahlbin +46 19 17 64 98
karin.wahlbin@scb.se
Bengt Larsson +46 19 17 60 38
bengt.larsson@scb.se
Ingvar Johanneson +46 19 17 65 48
ingvar.johanneson@scb.se

© 2006, Statistics Sweden

Any reproduction of the contents of this publication without prior permission from Statistics Sweden is prohibited by the Act of Copyright in Literary and Artistic Works (1960:729).

When quoting material from this publication, please state the source as follows: Source: Statistics Sweden, Background Facts, *Historic population register*

ISSN 1650-4917 ISBN 91-618-1333-8 ISBN 978-91-618-1333-9 URN:NBN:SE:SCB-2006-BE96ST0603_pdf

Printed in Sweden SCB-tryck, Örebro 2006:06

Foreword

Since 1968, Statistics Sweden has carried out a wide range of tasks relating to the population and changes in the population in the form of births, deaths, regional migrations, immigrations and emigrations and changes in civil status. In order to increase the availability of such information and to improve ease-of-use when retrieving data on a specific point in time or longitudinally, an historical database has been constructed. This publication "Background facts" presents the source registers and discusses how the historical population database has been produced from these. Also included is an account of the regulatory framework that governs how administrative changes and any errors from the population registration are handled.

The report has been drafted within the Register Unit by Ewa Eriksson, Ingvar Johannesson, Bengt Larsson, Karin Wahlbin and Tomas Blomqvist.

Statistics Sweden, May 2006

Anna Wilén

Åke Bruhn

Contents

Forew	ord	3
1 Sur	nmary	7
2.1	urce registers for the Historical Population Register (HPR) Stock registers	9
2.2 2.3	Demographic events registers Background to the register	9
2.4	Special registers	
3 Pro 3.1	duction of the HPR	-
4 Des	scription of contents	.17
4.1	Structure	
4.1.1	A simple example	. 18
4.1.2	Events	. 18
4.2	Contents	. 19
5 Reg	gulatory framework	. 27
6 Cha	anges in source registers over time	
6.1	Events registers	
6.1.1	Births	
6.1.2	Deaths	
6.1.3	Marriages	
6.1.4	Divorces	
6.1.5	Partnerships	
6.1.6	Widows/widowers	
6.1.7	Changes in citizenship	
6.1.8	Immigration	
6.1.9	Emigration	
6.1.10	Migration within Sweden across parish boundaries	
6.1.11	Migration within Sweden within parish	
6.2	Regional divisions	
6.1.2	Regions	
6.2.2	Counties	
6.2.3	Municipalities	
	mparison between the TPR register and the HPR	
	nfidentiality and regulations for handling personal data	
8.1	Secrecy Act	
8.2	Personal Data Act	
8.3	Longitudinal databases – key databases	
8.4	Inquiries	
	erences	
9.1	Population registration	
9.2	Total Population Register (TPR)	
9.3	Contents	
9.4	Quality and methods	
9.5 9.6	Laws and ordinances	
9.0 9.7	Regional divisions Systems and techniques	
0.1		

Appendix 1 Historical Population Register – input 1969–1997	49
Historical Population Register – input 1998–2003	
Historical Population Register – input of late notifications 1997	
Historical Population Register – input of late notifications 1998-2003	
Historical Population Register – input of late notifications 1997–2003	
Appendix 2	59
Example of how instances in the TPR stock registers and	
demographic events create the HPR	59
Appendix 3	63
Variables	
Civil status	
Property names	
Country of birth	
Parish	
Country migrated to	
Sex	
Citizenship	
Personal identity number	
Country migrated from	
Appendix 4	
Historical Population Register	87
Appendix 5	97
Quality in the Total Population Register	
1 The Total Population Register (TPR)	97
2 Target population	
3 Regulations on population registration	
4 Coverage	
5 Data content	101
6 Comprehensiveness of data	103
7 Accuracy of data	103
8 Measurement	
9 Controls	103
10 Timeliness of data	104
11 Comparability over time	
12 Ease-of-use and comparability	105
13 Accessibility of data	105
14 Presentation and documentation	

1 Summary

At Statistics Sweden, a large amount of historical data on the population and changes within the population is stored within the framework of the Total Population Register (TPR). Statistics Sweden's current production includes registers on the situation at the end of the year (stock registers) and registers on demographic events relating to persons entered in the population register in Sweden from 1968 onwards. An historical register on the registered population and demographic events has been created from these registers and organised into an easily accessible database table. All individuals who have been entered in the population records in Sweden at any time since 1969 can be followed here longitudinally, regarding different events that are included in the reporting system of the Total Population Register from the National Tax Board to Statistics Sweden. The database table for the Historical Population Register constitutes, in this respect, an annual register.

One of the aims with an historical population register is to replace as much as possible the daily use of the annual stock registers and the combined events registers from 1969 onwards. Consequently, these source registers should, for the majority of purposes, be completely replaced and should not therefore need to be kept continually active at Statistics Sweden.

The structure of the Historical Population Register (HPR) requires that the register begins with the population and events on 1 January 1969. It has been assumed that the Total Population Register for 1968 is applicable for this date and population events from 1 January 1969 have been included in the register. Consequently, events from 1968 are not included in the HPR. It is not possible to create a register for a date earlier than 1 January 1969.

2 Source registers for the Historical Population Register (HPR)

This section will provide a brief description of the Total Population Registers that have provided the basis for the HPR. The registers relate to the size of the population at the end of each respective year (stock) and changes in the population (events) during those years. We also present certain special registers from the TPR system that have been used to raise the quality of the HPR. The quality of the source registers is described in detail in Appendix 5.

2.1 Stock registers

The stock registers of the TPR are annual registers that contain data on the registered population as per 31 December of the respective year. They are the central registers in the TPR system and exist from 1968 onwards. From 1998 onwards, the registers are produced in the new TPR system and contain more data than previously. The HPR contains the most frequently used data from the stock registers.

Data from the following stock registers have been used:

• the TPR stock registers for the years 1968–2004, with the reference date 31 December for the respective year.

2.2 Demographic events registers

The TPR's annual events registers contain events that took place during the whole year. For the HPR, events registers for the years 1969–2004 have been used.

Since 1998, the registers have been produced in the new TPR system and contain more data than previously.

Data from the following events registers have been used for the HPR:

- Births, live births
- Births, stillborn
- Deaths
- Immigrations
- Emigrations
- Migrations within Sweden
- Changes in civil status
- Changes in citizenship

2.3 Background to the register

1961-1967

Registers on events that took place during the period 1961–1967 exist for births, deaths and emigrations.

The data are based on printed cards, with population registration data sent from the county administrative boards to Statistics Sweden. At Statistics Sweden, the data were registered on punch cards to become the foundation for population statistics. Magnetic tape later took the place of hole cards. Registration at Statistics Sweden was outside the framework of population registration.

Personal identity numbers from 1961–1967 did not contain a control digit and therefore it has not been possible to verify the accuracy of the identification numbers when registering them. The control digit has been calculated from the registered identification number, whether this is accurate or not, and has therefore no intrinsic value as a control tool.

Because the quality in the events register is inferior and there is no stock register, it has not been possible to compile data for the HPR for this period.

1968-1997

Statistics Sweden's Total Population Register, TPR, was established in 1968 when a large amount of data from the registers at the country administrative boards was copied and sent to Statistics Sweden. Until 1998, the TPR was updated with weekly notifications on changes in the population, made up largely of data on events included in the HPR.

The control digit was officially introduced into personal identity numbers in 1968 when the population registration system was computerised and county-based population registers were introduced.

1998 onwards

A new TPR system came into regular use in 1998. The new system was based on a complete retrieval of TPR data from the population register databases dated 1 November 1997. Since then, data are delivered from the population registers to the TPR via a new notification system on a daily basis.

2.4 Special registers

Some special registers have also been used in order to increase the quality of the HPR. These are produced annually as part of the regular TPR production.

The following special registers have been used:

- Changes in personal identity numbers
- Multi-Generation Register
- Register of suspected re-used personal identity numbers

Changes in personal identity numbers

The register of changes in personal identity numbers is used to identify and link persons in the source registers included in the HPR, where an individual is identified by the most recent personal identity number if this has changed.

Multi-Generation Register

A Multi-Generation Register has been created focusing on the child-parent (biological and adoptive) relationship. The register, which contains all persons born since 1932, makes it possible to study biological relationships, something which is of great interest for medical research, for example.

When data on country of birth is missing in the TPR stock register, this information is taken from the Multi-Generation Register.

Register of suspected re-used personal identity numbers

When the annual HPR is produced, a register of personal identity numbers that are suspected to have been re-used is consulted. The production process itself can also provide the opportunity to detect more personal identity numbers that are being used by more than one individual. An updated register of suspected re-used personal identity numbers is therefore created every year as a by-product of the HPR.

3 Production of the HPR

A brief description with text and flowcharts is given below of the annual production process of the HPR. Figure 1 below illustrates a simplified flow of such an annual production process. How the register was created for the first time is shown in Appendix 1.

3.1 Annual production process

When TPR2004 is produced, all the TPR instances (persons in the register) are taken from the stock register from 2004-12-31. The date is changed from 2004-12-31 to 2005-01-01 to match the date referred to by the regional divisions. All events occurring during 2004 are also retrieved. These events can refer to births, deaths, migrations within Sweden, changes in civil status, changes in citizenship, immigrations and emigrations. Late notifications relating to 2003 or earlier are also retrieved.

TPR instances and events for 2004, plus the late notifications from 2003 or earlier are input together with the previous year's HPR. To take into consideration changes in personal identity numbers, the most recent numbers are used in all cases. All events and TPR instances are sorted by personal identity number and date whereby all duplicates are deleted.

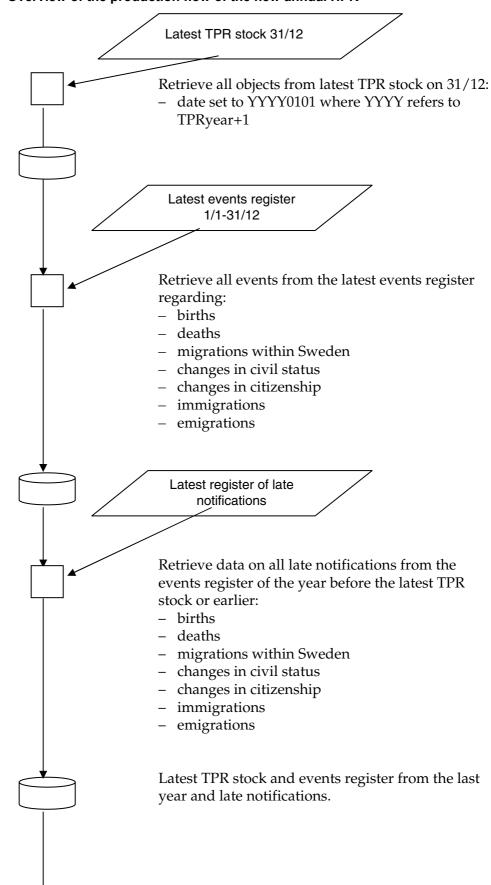
A personal identity number is classified as suspected re-used when a notification of immigration is received for a person at least five years after that person's death. The figure 20 (for all events and TPR instances, including death) is added to the previously used personal identity number. For these suspected re-used personal identity numbers, caused by immigration, a variable on suspected re-used numbers is marked.

The main processing is then carried out, in which the material is compressed to roughly a quarter of its original size, in terms of number of rows. From every event and TPR instance having its own row (and date), rows are formed that consist of a date from the moment an event takes place and a date to which a new event takes place. TPR instances between a date from and a date to are marked in the same row (e.g. TPR68=0, TPR69=0, TPR70=1, TPR71=1, TPR72=1...).

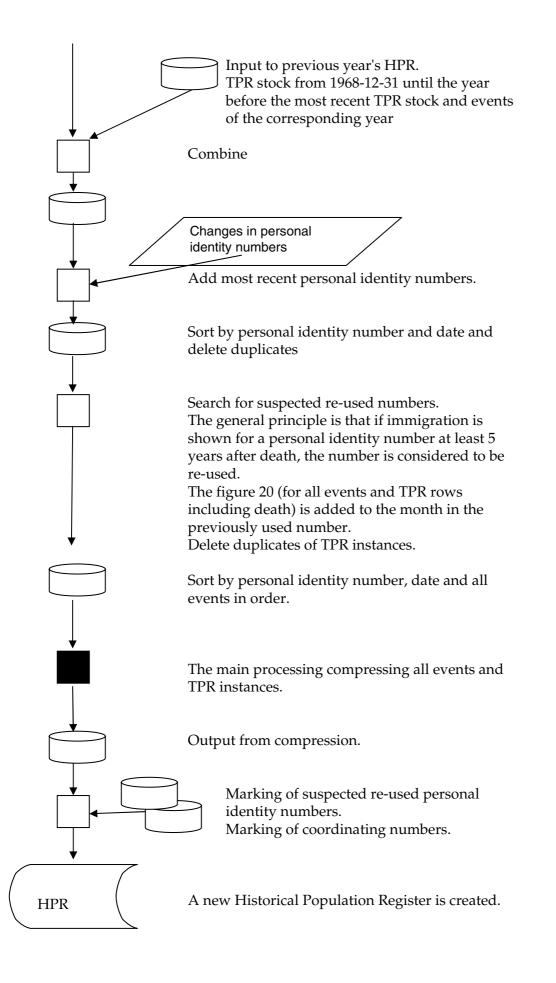
When the main processing is complete, further work is carried out:

- to mark further suspected re-used personal identity numbers (ca. 7 000 individuals),
- to mark all coordinating numbers (ca. 14 500 persons). A coordinating number is used, for example, for persons who are not registered in Sweden but who work and pay taxes here.

As the HPR is updated every year with late notifications, the register will always be a dynamic register in which changes can be made that relate to an earlier point in time than the previous year. Changes in personal identity numbers are also taken into account every year to make it easier to follow individuals longitudinally. Figure 1 on the next page illustrates an overview of the production flow of the annual HPR. A flowchart showing how the HPR was produced for the first time can be found in Appendix 1.







4 Description of contents

One of the factors of key importance during the process to find a suitable model for the storage of such a large amount of data was that the material should be easily accessible. It should also be easy to carry out retrievals of data for different purposes, such as events relating to particular individuals, specific event patterns for groups of individuals and presentation of the annual population. To fulfil these conditions, a model for storage in a database table was chosen, with one row showing the situation for one individual, including dates to and from. A change, such as a migration, creates a new row for the same individual in the database table. On average, every object = individual consists of around 6 rows. This construction differs from the majority of database tables, which generally consist of one row per object.

This chapter contains a description of the current structure of the database table. Changes in content may occur in the future if such demands arise.

4.1 Structure

The rows for one individual in the database table are created from instantces in the annual stock register of the TPR and the demographic events registers from 1969 onwards. The TPR stock register relates to the last day in December every year starting from TPR1968, which relates to 1968-12-31. The population therefore consists of all events from 1969 onwards and instances in the TPR from TPR1968 onwards. If no event occurs, the only change made relates to the instance in the TPR every year. An event must occur for the creation of a new row for an individual.

For every event (or row in the table), the date when the event took place is given. For example, a migration within Sweden is given the date when the migration took place (date from) and the date (date to) when the next event occurs (not necessarily a new migration). The rows in the HPR do therefore not show how long an individual has lived at the address they migrated to. This is important to note in order to understand the register. New events result in a new row. The date of a new event (date from) is also the same date which terminates the previous row (date to).

_		
Event	date from	date to
Birth	Х	
Immigration	Х	
Migration in Sweden	Х	
Change in citizenship	Х	
Change in civil status	Х	
Emigration		Х
Death		Х

Date for an event is given as follows:

Note that the dates for the events "emigration" and "death" are given in the variable "date to". These events do not create a new row.

4.1.1 A simple example

Consider the following example of how a row is created in the database table:

An individual immigrates and is present in the TPR for five years before dying. During those five years, the person lives at the same address and none of the events in the table above take place until death. The results for this individual in the table create only one row. The date of immigration is given in the variable "date from". Every appearance in the TPR is noted. The variable "date to" shows when the person dies.

Input

PersonNr	Date	Immigration	Death	TPR year	TPR row
1963	19830627	1	0	-	0
1963	19840101	0	0	1983	1
1963	19850101	0	0	1984	1
1963	19860101	0	0	1985	1
1963	19870101	0	0	1986	1
1963	19880101	0	0	1987	1
1963	19880916	0	1	-	0

Output

PersonNr	Date from	Date to	Immig.	Death	TPR83	TPR84	TPR85	TPR86	TPR87
1963	19830627	19880916	1	1	1	1	1	1	1

A more complex example is shown in Appendix 2.

4.1.2 Events

Different events affect different variables. A new row is created in the table either by taking all variables from the source register, input, or by copying variables from the previous row in the table and only changing certain variables in the new row.

Birth

As this event is, of course, the first for an individual, all variables (excluding Date to) are taken from the source register.

Immigration

As with Birth, all variables taken from source register (excluding Date to).

Migration within Sweden

The old and new registration variables (parish and property name) are taken from the source register. The event terminates the previous row (Date to) and creates a new row.

Change in citizenship

Only a new country of citizenship is taken from the source register. The event terminates the previous row (Date to) and creates a new row.

Change in civil status

Only a new civil status is taken from the source register. The event terminates the previous row (Date to) and creates a new row.

Emigration

Country emigrated to is taken from the source register and the current row is terminated (Date to). Emigration does not therefore create a new row in the table.

Death

Terminates the current row (similarly to Emigration above). No more rows are created for the individual.

Changes in breakdowns

Parish and property name from a specific date taken from the source Register. The event terminates the previous row (Date to) and creates a new row.

4.2 Contents

For a detailed description of the content of variables taken from the TPR system, see Appendix 3.

The HPR contains the following variables:

PersonNr

Refers to an individual's most recent personal identity number.

An individual can change personal identity number once or several times. In order to keep all events for one individual together, they are linked to the most recent personal identity number. Previous personal identity numbers are not included in the register.

Personal identity numbers with blanks for figures 9 and 12 are stillborn births. Unlike the TPR stock register, these individuals are included in the HPR.

FelKod

Coding error. For an explanation of the different coding errors, see Chapter 5 (Regulatory framework).

DatFran

Date from. The date showing when a new event occurs, excluding Emigration or Death. The same date terminates any previous rows in DatTill. Events are from 1969-01-01 to 2004-12-31. The date for every annual stock of the TPR has been written as year=TPRyr+1 and month and day=0101. TPR68 is therefore given the date 1969-01-01. This is so that the date corresponds to the regional divisions used.

For Immigration and Migration within Sweden from 1969–1997, there is no actual event date, only a processing year and week, from which a date has been created.

- For events with processing week=01, the event day has been written as 0101.
- For the processing weeks >01, the event date has been written as the Monday of the processing week.

This means that the actual migration can have taken place earlier than the date given.

DatTill

Date to. Date is input as the same date as the next row's DatFran. If the event is Emigration or Death, no new row is created.

Individuals who are registered in Sweden at the end of the previous year are given 2005-01-01 for DatTill. This is the same as the treatment of dates in the HPR.

Antdagar

Number of days. States the number of days for every row, i.e. until a new event occurs.

Fodd

Birth. Event variable; if event, value = 1, otherwise 0. Stillborn births are included in the register.

FodelseLandNamn

Country of birth in free text.

Kon

Code showing sex. 1 = male 2 = female

CivilAndring

Change in civil status. Event variable; if event, value = 1, otherwise 0.

Civil

Code showing civil status.

OG	=	unmarried
G	=	married
S	=	divorced
Ä	=	widow, widower
RP	=	registered partner
SP	=	separated partner
EP	=	partner still living

These codes exist in the TPR system from 1998 and onwards. The old codes used before 1998 have been translated into the new ones.

InrikesFlytt

Migration within Sweden. Event variable; if event, value = 1, otherwise 0.

Forsamling

Parish code showing the administrative parish where an individual is registered.

Parish is represented by an official, numerical six-digit code as follows:

- County code 2 digits
- Municipality code 2 digits
- Parish code 2 digits

Over the years, a number of changes, both more and less significant, have taken place regarding the parish divisions. Changes in the administrative divisions for county, municipality and parish are presented in the publication series, Reports on Statistical Coordination (MIS), published by Statistics Sweden.

Fast

Consisting of a property designation or property serial number showing the property where an individual is registered.

When Statistics Sweden launched the new TPR system in 1998, the official property designations were introduced and the internal Statistics Sweden property serial numbers ceased as property identifiers in the TPR.

A serial number was used as a property identifier in the TPR during the period 1981–1997. This serial number was a 5-digit internal Statistics Sweden number running within a parish.

To replace the official property numbers, which ceased to exist in 1981, Statistics Sweden created its own 5-digit number for several of Statistics Sweden's registers. If necessary, this serial number can be translated into the official property code.

Serial number	Meaning
99980	Population registration under heading "Registered in parish"
99990	Population registration under heading "Without known address"
99999	Population registration at address where serial number is missing "Data missing".

Some serial numbers used in special cases include:

ForsamlingG

Parish code showing the administrative parish where an individual was registered before migration within Sweden.

FastG

Property designation showing the address where an individual was registered before migration within Sweden.

Immigration

Event variable; if event, value = 1, otherwise 0.

UtflLandNamn

Country migrated from in free text, showing the country from which immigration to Sweden took place.

Individuals entered in the population register when transferring from a register of "non-existent persons" is given the code OB for country migrated from.

The country migrated from is shown according to the country breakdowns applicable at the time of immigration.

Emigration

Event variable; if event, value = 1, otherwise 0.

InflLandNamn

Country migrated to in free text showing country to which emigration from Sweden took place.

Country migrated to is shown according to the country breakdowns applicable at the time of emigration.

Persons that are removed when transferring to a register of "non-existent persons" is given the code OB for the country of emigration.

MedborgarByte

Change in citizenship. Event variable; if event, value = 1, otherwise 0.

MedbLandNamn

Country of citizenship in free text.

When an individual has more than one citizenship, only one of these is prioritised and presented in the TPR.

The TPR applies the same prioritising rules as used by the National Social Insurance Board. In brief, the order of priority is as follows:

- 1) Swedish citizenship.
- 2) Citizenship of EES country.
- 3) Citizenship of country outside EES with which Sweden has a social insurance convention.
- 4) Other citizenship.

If the dual citizenship is of countries with the same level of priority, the citizenship held first is chosen.

Dod

Death. Event variable; if event, value = 1, otherwise 0.

HPRyy and HPRyyyy

With every new year of the HPR, a new variable is created for the latest TPR.

TPR68

Instance in TPR 1968-12-31, value 0 or 1.

TPR69

Instance in TPR 1969-12-31, value 0 or 1.

TPR70

Instance in TPR 1970-12-31, value 0 or 1.

TPR71

Instance in TPR 1971-12-31, value 0 or 1.

TPR72

Instance in TPR 1972-12-31, value 0 or 1.

TPR73

Instance in TPR 1973-12-31, value 0 or 1.

TPR74 Instance in TPR 1974-12-31, value 0 or 1.

TPR75 Instance in TPR 1975-12-31, value 0 or 1.

TPR76 Instance in TPR 1976-12-31, value 0 or 1.

TPR77 Instance in TPR 1977-12-31, value 0 or 1.

TPR78 Instance in TPR 1978-12-31, value 0 or 1.

TPR79 Instance in TPR 1979-12-31, value 0 or 1.

TPR80 Instance in TPR 1980-12-31, value 0 or 1.

TPR81 Instance in TPR 1981-12-31, value 0 or 1.

TPR82 Instance in TPR 1982-12-31, value 0 or 1.

TPR83 Instance in TPR 1983-12-31, value 0 or 1.

TPR84 Instance in TPR 1984-12-31, value 0 or 1.

TPR85 Instance in TPR 1985-12-31, value 0 or 1.

TPR86 Instance in TPR 1986-12-31, value 0 or 1.

TPR87 Instance in TPR 1987-12-31, value 0 or 1.

TPR88 Instance in TPR 1988-12-31, value 0 or 1.

TPR89 Instance in TPR 1989-12-31, value 0 or 1.

TPR90 Instance in TPR 1990-12-31, value 0 or 1.

TPR91

Instance in TPR 1991-12-31, value 0 or 1.

TPR92

Instance in TPR 1992-12-31, value 0 or 1.

TPR93

Instance in TPR 1993-12-31, value 0 or 1.

TPR94

Instance in TPR 1994-12-31, value 0 or 1.

TPR95

Instance in TPR 1995-12-31, value 0 or 1.

TPR96

Instance in TPR 1996-12-31, value 0 or 1.

TPR97

Instance in TPR 1997-12-31, value 0 or 1.

TPR98

Instance in TPR 1998-12-31, value 0 or 1.

TPR99 Instance in TPR 1999-12-31, value 0 or 1.

TPR2000 Instance in TPR 2000-12-31, value 0 or 1.

TPR2001

Instance in TPR 2001-12-31, value 0 or 1.

TPR2002

Instance in TPR 2002-12-31, value 0 or 1.

TPR2003 Instance in TPR 2003-12-31, value 0 or 1.

TPR2004 Instance in TPR 2004-12-31, value 0 or 1.

IndelAndr

Code for changes in breakdowns. If breakdowns have been changed, value = 1, otherwise 0.

Changes in breakdowns are marked if there has been a change in parish and/or property between TPR stocks without any information on migration within Sweden. A mark is also made if the parish and/or property differ from the information available on migration within Sweden or immigration immediately before the TPR.

AterAnvPnr

Suspected re-used personal identity numbers. All known personal identity numbers that can be suspected of having been re-used are marked.

Code for suspected re-used personal identity numbers; value = 1, otherwise 0.

SamOrdnNr

Code for coordinating numbers. If coordinating number, value = 1, otherwise 0.

Shows if the personal identity number has previously been a coordinating number. This is used, for example, for individuals who are not registered in Sweden but who work and pay taxes here.

5 Regulatory framework

The logical first row for an individual is either a birth, an immigration or a TPR instance from TPR1968-12-31. If the first row does not fulfil these conditions, it is marked with an error code.

Others errors, or illogical events, are also marked with specific error codes. Some errors are corrected, others remain but are marked.

Around 13 million individuals are included in the HPR, of which around 390 000 corrections have been made for 373 000 individuals. One example is the deletion of TPR instances after death. There may be several corrections per individual.

The share of individuals with uncorrected errors is 7.4 pro mille, or around 96 200 individuals. The table on page 19 shows how these are distributed among error codes. Slightly over 70 per cent of the 96 200 individuals with uncorrected errors have an incorrect migration within Sweden (i.e. information on old parish for the event migration within Sweden does not agree with information on old parish from a previous TPR).

When at least one error is marked for an individual, the other rows for that individual are marked with error code 9, indicating that at least one error has been detected. If the error code refers to an incorrect migration within Sweden, the other rows for that individual are given error code 8. This is because the majority of errors are due to incorrect information in this category.

Description of reasons for error coding in rows in the table

Note that the description of error codes is taken from all input rows. All inputs with all events and TPR instances are in date order (one row for every event and TPR instance).

These rows are compressed and form the final database table.

- 1) means that the error remains uncorrected (not possible to correct).
- 2) the error has been corrected.
- 3) an uncorrected error that can have been voided by error code 4.1.1

4) an uncorrected error that can have been voided by error code 3.1 or 3.2

Error code 1.1: Only one row, stillborn birth. 1)

- Error code 1.2: Only one row, other. 1)
- Error code 2.1: First row TPR row but not TPR1968 3)

Error code 2.2: First row/rows incorrect, i.e. not TPR row, birth or immigration. Incorrect first rows are skipped and processing begins with first TPR, birth or immigration row found. 2)

- Error code 2.2.1: First row is change in civil status and second row is immigration. Immigration is placed first and given same date as change in civil status. 2)
- Error code 2.2.2: Birth is second row after TPR row with same year. TPR row is deleted. 2)

Error code 2.2.4: Several birth rows. Start with the last row. 2)

Error code 3:	Emigration followed by TPR row. 3) 4)
Error code 3.0:	Emigration followed by emigration. The most recent is saved. 2)
Error code 3.1:	Emigration not immediately followed by immigration although several other events follow. 1)
Error code 3.3:	Emigration not followed by immigration at all although several other events follow. 1)

Immigration followed by immigration. Save the first one. Error code 4.1: 2)

For 4.1.1 and 4.1.2, the following applies:

Immigration follows after TPR row and is given the same year as the TPR

Error code 4.1.1:	If the new parish after immigration is the same as the parish in the previous TPR, the following occurs: the date for immigration is changed to the same date as in the TPR row and placed before the TPR row. 2)
Error code 4.1.2:	If the new parish after immigration is NOT the same as the parish in the TPR, the TPR row is saved before the immigration is considered. 1)
Error code 4.2:	Immigration without emigration immediately before. Others from 4.1. 1)
Error code 5.1.1:	If TPR row occurs after death. TPR row is ignored and processing is discontinued. 2)
Error code 5.2.1:	Migration within Sweden occurs after death. Date of migration is changed to date of death and placed before. 2)
Error code 5.2.2:	Event row, not migration within Sweden, occurs after death. 2)
Emigration prec	edes death for 5.2.3, 5.2.4 and 5.2.5

- Error code 5.2.3: Immigration after death with same year. Rows change places. 2)
- Error code 5.2.4: Immigration after death, not same year. Events relating to individual are discontinued after death. 1)
- Error code 5.2.5: Immigration does NOT follow death. Events relating to individual are discontinued after death. 1)
- Error code 5.2.6: Change in citizenship. If new citizenship is not the same as the previous TPR row, event is deleted. 2)

Migration within Sweden

Error code 6.0:	Two migrations one after the other where <i>Fast</i> = 99999
	and both migrations FastG are the same. The first migra-
	tion is deleted. 2)

For the codes below, ForsamlingG does not agree with Forsamling in the last row in question

Error code 6.1.1:	First row is TPR, row 2 is migration within Sweden and
	<i>ForsamlingG</i> and <i>FastG</i> agree with the previous row's
	Forsamling and Fast. Migration is deleted. 2)

Error code 6.1.2: First row is TPR and row 2 is migration within Sweden and *ForsamlingG* and *FastG* do *not* agree with previous row's *Forsamling* and *Fast*. 1)

Error code 6.2:	Migration within Sweden comes after TPR row and	
	<i>ForsamlingG</i> = <i>Forsamling</i> in row before TPR row.	
	Date is changed to the year before the year for the TPR	
	and month and day to 1231. Migration within Sweden	
	placed before TPR row. 2)	

- Error code 6.3: As with 6.2 but migration comes after event row. 1)
- Error code 6.4.1: Migration within Sweden comes after TPR row. ForsamlingG is not the same as Forsamling in the row before the TPR row but FastG = Fast in the row before the TPR row and the year of migration is 1971 or 1974. Date is changed to the year before the year for the TPR and month and day to 1230. Migration placed before TPR row. 2)
- Error code 6.4.2: Rest of *ForsamlingG* does not agree with *Forsamling* in previous active row. Many are likely changes in the breakdown of *ForsamlingG, FastG.* 1)

Error code	Number of persons with uncorrected errors	Share of persons pro mille with errors
2.1	6 371	0.49
3	6 688	0.51
3.1	4 542	0.35
3.2	5 506	0.42
4.1.2	1 981	0.15
4.2	2 410	0.19
5.2.2	172	0.01
6.1.2	7 659	0.59
6.3	1 680	0.13
6.4.2	59 213	4.55
Others	15	0.01
Total	96 237	7.40

The table above shows the number of individuals for which an error could not be corrected, shown by error code. More errors that cannot be corrected could exist for these individuals. The total number of errors that cannot be corrected is 108 128, i.e. on average, 1.12 errors per individual for those with uncorrected errors.

6 Changes in source registers over time

This section presents the changes in conditions that affect the data input in the TPR system. This can include, for example, legislation, changes in classifications and changes in the system for population registration. The cut-off point for retrievals of statistical registers from the TPR system is also noted here. The cut-off point refers to the moment at which the statistical register is created, when no further data are included. This usually refers to a specific point in time (i.e. at the end of the year). Notifications of events received after the cut-off point are collected in a separate register. These late notifications are taken into consideration in the HPR.

6.1 Events registers

The events registers include notifications from the population registration on different types of events, such as births, deaths, migrations, immigrations, emigrations and changes in civil status. Changed registered addresses are also reported, when the change is due to some form of administrative change in classifications or changes in the existing codes for county, municipality and parish. Changes in property breakdowns are also reported because population registration is carried out per property.

Some of the changes shown below do not affect the HPR, such as the cutoff point for retrievals from registers for the production of statistics.

6.1.1 Births

Until 1997, late notifications of births were compiled in a database table (Fodda6197..Fodda6596SenAvi). From 1998, late notifications have been stored in the TPR system's production database.

1961-1997

A births register exists for the entire period. The register Fodda6197 contains late notifications for part of the period, namely 1979–1990.

1979

The births register for this year contains many duplicates.

From 1998 onwards

An annual births register exists within the TPR system for every year.

Until 1976

Births are reported in the annual long-term archived registers divided into births within and outside of marriage.

From 1977 onwards

The SQL register contains births broken down by each child's ordinal position among living children and stillborn births, per mother.

Until 1972

The child has an ordinal position within an existing marriage.

1973

The child's ordinal position among living children and stillborn, per mother. Note that the ordinal position of the tenth child in a family can be registered as 0 (because there is only space for one digit).

1973-1979

Cut-off point in week 16.

1980–1997

Cut-off point in week 13.

1997

Children born to mothers not registered in Sweden are included in the register. After 1998, these children are not registered.

Until 1997

Stillborn births are included in the register.

From 1998 onwards

Stillborn births are placed in a separate database table within the TPR system for every year.

From 1998 onwards

Cut-off point in week 4.

6.1.2 Deaths

From 1952 onwards

A deaths register is created (the old Cause of Death Register).

1961-1997

A deaths register exists for the whole period – short version – also including late notifications for 1965–1996. Late notifications from 1997 are not included due to a reorganisation of the TPR system.

Annual deaths registers for each year are long-term archived.

From 1998 onwards

Data on deaths are stored in a separate database table within the TPR system for each year. Late notifications are included in the TPR system's production database (also late notifications from 1997).

1968-1997

A database table exists for the whole period.

1973–1979 Cut-off point in week 16.

1980–1997 Cut-off point in week 13.

From 1998 onwards

Cut-off point in week 4.

6.1.3 Marriages

Late notifications of marriages for the period 1968–1997 have not been saved; these are included in the TPR system from 1998 onwards.

From 1968 onwards

Data on the woman and data on the man are linked together to the relevant marriage. Only the parties that are included in the population register in Sweden are linked together. The number of marriages entered into = the number of newly-married women. Before 1968, only one piece of data was registered per marriage.

1968-1995

A register of newly-married couples exists for the period.

1996-1997

A register of marriages exists for these years.

Until 1979 Cut-off point in week 16.

1980–1997 Cut-off point in week 17.

1998 onwards Cut-off point in week 4.

6.1.4 Divorces

Late notifications of divorces from the period 1968–1997 have not been saved; these are included in the TPR system from 1998 onwards.

From 1968 onwards

Data on the woman and data on the man are linked together to the relevant divorce. Only the parties that are included in the population register in Sweden are linked together. Number of divorces = number of newly-divorced women. Before 1968, only one piece of data was registered per divorce.

1968–1997

A register of newly-divorced individuals exists for the whole period.

From 1974 onwards

New divorce legislation was introduced, replacing the judicial separation year with a period called consideration time.

Until 1979

Cut-off point in week 16.

1980-1997

Cut-off point in week 17.

1998

Cut-off point in week 4.

6.1.5 Partnerships

1995

On January 1, legislation was introduced allowing the registration of partnerships.

From 1998 onwards

Registered partnership exists as a separate civil status.

6.1.6 Widows/widowers

Late notifications from the period 1968–1997 have not been saved. From 1998 onwards, data from the late notifications of changes in civil status to widow or widower are included in the TPR system.

1968-1997

A register for the entire period exists.

Until 1979 Cut-off point in week 16.

1980–1997 Cut-off point in week 17.

From 1998 onwards

Cut-off point in week 4.

6.1.7 Changes in citizenship

Late notifications of changes in citizenship from the period 1968–1997 have not been saved; these are included in the TPR system from 1998 onwards.

1968-1997

A register exists for every year. The old country of citizenship is represented by a 2-letter code. If the new country of citizenship is Sweden, this is shown by the year (2 digits).

Until 1973

Data on changes in citizenship received up to the end of the respective year are reported in the same way as migrations, i.e. changes of citizenship occurring during the year constitute that year's changes in citizenship.

From 1974 onwards

Changes in citizenship are reported by the date they occurred.

Until 1979 Cut-off point in week 16.

1980–1997 Cut-off point in week 17.

From 1998 onwards

Cut-off point in week 4.

6.1.8 Immigration

Late notifications were saved first from 1998 onwards and are included in the TPR system.

1961-1967

Of those immigrating to Sweden during the period, there are only personal identity numbers for those that are born on the 15th of every month. This register is kept in the National Archives.

Until 1966

Date of immigration = moment of entry into parish register.

1967-1997

Date of immigration = moment of registration with county administrative board YYWW (year and week). The end of the year was the cut-off point.

1968-1997

A register of immigrants exists for the whole period. Country migrated from is reported as a two-letter code. The register also contains migrations from registers of "non-existent persons" (OB), showing country migrated from as a blank in the register.

From 1998 onwards

Date of immigration = date of residence permit or date of immigration. Country name is reported in free text. Cut-off point in week 4.

6.1.9 Emigration

Late notifications were saved from 1998 onwards and are included in the TPR system.

1961-1967

A register exists with country names in the form of a 3-digit code for country migrated to.

1967-1997

Date of emigration = moment of registration with county administrative board YYWW (year and week). The end of the year was the cut-off point.

1968-1997

A register of emigrated persons exists for the whole period. Country migrated to is reported as a 2-letter code. The register also contains migrations to registers of "non-existent persons" (OB), showing country migrated to as a blank in the register.

From 1998 onwards

Date of emigration = date of emigration Country name is reported in free text. Cut-off point is week 4.

6.1.10 Migration within Sweden across parish boundaries

Late notifications were first saved from 1998 onwards and are included in the TPR system.

1967-1997

Date of migration = moment of registration with county administrative board YYWW (year and week). The end of the year was the cut-off point.

1968-1997

A register exists for every year. Value = 3 indicates migration across parish boundaries. The value = 6 also exists in the registers from 1978 onwards, indicating migrations within parishes.

From 1998 onwards

Date of migration = date of migration Cut-off point is week 4.

6.1.11 Migration within Sweden within parish

Late notifications were first saved from 1998 onwards and are included in the TPR system.

1978-1997

A register exists for every year. Value = 6 indicates migration within a parish. Value = 3 also exists in the registers from 1968 onwards, indicating migration across parish boundaries.

1978-1997

Date of migration = moment of registration with the county administrative board YYWW (year and week). The end of the year was the cut-off point.

From 1998 onwards

Date of migration = date of migration Cut-off point is week 4.

6.2 Regional divisions

6.1.2 Regions

In the population events registers, the same regional breakdown is used for county, municipality, parish as is used in the year the events took place.

One exception is the register for 1973, the regional breakdown from 1974 is used.

The regional breakdown for county, municipality, parish in the TPR stock registers is the same as the regional breakdown from the following year.

6.2.2 Counties

1968-1996

In 1968, Stockholm county (County 02) merged with Stockholm city (County 01). The county code for the new Stockholm county was changed to 01. There were 24 counties during this period (codes 01, 03-25).

1997

Malmöhus county (County 12) was joined with Kristianstad county (County11) to form Skåne county (County 12).

1998

Göteborg and Bohus county (County14) were joined with Skaraborg county (County15) and Alvsborg county (County16) to form Västra Götaland county (Couny14).

6.2.3 Municipalities

1950s

A couple of thousand small municipalities existed at this time with an average of approximately 3 500 inhabitants.

1960s

The joining together of blocks of municipalities led to new cooperations and the formation of common municipalities with at least 7 000 inhabitants. This was a result of compulsory school reforms and the government's housing programme "Miljonprogrammet".

1971

The number of municipalities decreased from 800 to 500.

1974-1976

The municipality reforms were concluded with the merging of further municipalities, to create 278 different municipalities.

1977-01-01

277 municipalities.

1229 Bara municipality and 1263 Svedala municipality were joined to become one municipality, 1263 Svedala.

2121 Ovanåker municipality was expanded with Alfta parish area, which transferred from 2183 Bollnäs municipality

1980-01-01

279 municipalities. A new municipality called 0584 Vadstena split from 0583 Motala municipality. 2425 Dorotea municipality split from 2463 Åsele municipality.

1983-01-01

284 municipalities.

0128 Salem municipality split from 0127 Botkyrka municipality.

0117 Osteråker municipality split from 0187 Vaxholm municipality.

1663 Essunga municipality split from 1660 Vara municipality.

2418 Malå municipality split from 2417 Norsjö municipality.

2403 Bjurholm municipality split from 2460 Vännäs municipality.

1992-01-01

286 municipalities.

Two new municipalities, 0461 Gnesta and 0488 Trosa were formed from 0480 Nyköping municipality.

1995-01-01

288 municipalities.1535 Bollebygd municipality split from 1583 Borås municipality.1814 Lekeberg municipality split from 1880 Örebro municipality.

1999-01-01

289 municipalities. 0140 Nykvarn municipality split from 0181 Södertälje municipality.

2003-01-01

290 municipalities. 0330 Knivsta municipality split from 0380 Uppsala municipality.

Changes to the coding of the municipalities were made in 1997-01-01 and 1998-01-01 as a result of the merging of the counties.

7 Comparison between the TPR register and the HPR

A control has been carried out to ensure that the HPR is produced in such a way that all available source material is utilised. This included a summary of all the individuals and different types of events for each year that are contained in the register. This has then been compared with an equivalent summary of existing events registers, the TPR's stock registers and data published within the framework of population statistics. The results are shown in tables 1 - 9 in Appendix 4. Following are some examples of general dissimilarities between the HPR, which is a longitudinal register on individuals, and the stock and events registers produced within the TPR system:

- The HPR includes all changes from late notifications. Notifications that were reported after the cut-off point every year are collected in a separate register in the TPR system and are not included in the official end-of-year registers. When comparing number of births in the HPR and the TPR's events registers, it appears that the differences in the number of births can largely be explained by late notifications that were received too late to be included when the end-of-year versions of the various TPR registers were produced.
- The problem of re-used personal identity numbers in the population registration has resulted in several persons having the same personal identity number in the TPR system. These suspected re-used personal identity numbers are marked in the HPR.
- Changing personal identity numbers can create duplicates. These have been deleted from the HPR.
- Due to corrections and late notifications from the population register, persons can appear in the end-of-year versions of the TPR before their birth or after their death. Such errors have been adjusted.
- From 1998 onwards, a new platform for reporting and production within the TPR system has been used. The new production system began with a complete retrieval of the entire population from the National Tax Board's population register. This meant that data that had, for example, been reported late in the population registration system and therefore previously not included in the TPR events registers, were included in the complete retrieval and consequently also the TPR from 1998 onwards.

When comparing the HPR and the TPR's annual stock registers, the number of persons and the actual differences between the registers are shown (Table 1). Comparison on the level of personal identity numbers has not been carried out. Comparison with the TPR's events registers (Tables 2-9) shows the number of actual events and not the number of persons affected by a specific event. For example, one individual can move several times but it is the total number of moves that is shown not the number of individuals moving. The same applies for immigrations and emigrations. The number of marriages and divorces refers to women who, during the year in question, got married or divorced. This is the same definition as used in the published population statistics.

In the HPR, stillborn births are included and errors regarding a previously non-registered second twin are corrected.

8 Confidentiality and regulations for handling personal data

Anonymised data on individuals from the HPR can be requested for research and statistical purposes. Every request to Statistics Sweden for the release of individual information undergoes a confidentiality test. Statistics Sweden is subject to statistical confidentiality rules which can be found in Chapter 9 §4 of the Secrecy Act (1980:100). For the automated handling of personal data, regulations in the Personal Data Act (1998:204) also apply.

8.1 Secrecy Act

According to Chapter 9 §4 of the Secrecy Act (1980:100), confidentiality applies to the activities of authorities that involve the production of statistics on data showing individual personal or economic situations and which can be identified as referring to that individual. The principal rule is therefore that data in statistical activities are confidential and should not be released. Exceptions to this rule have been made for information needed for research or statistical purposes, which cannot be directly linked to the individual through name, other identity symbol or comparable situation. Data can be released, in these cases, when it is determined that the data can be disclosed without causing harm or injury to the individual the data refer to or someone close to that individual. The term individual relates to physical as well as legal persons.

Before the release of data on the basis of one of the exceptions, an assessment must always be carried out on the risk of causing harm or injury to the individual the data refer to or someone close to that individual. It should be clear that the release of data can be done without risk.

8.2 Personal Data Act

The Personal Data Act (1998:204) contains certain fundamental decisions on the handling of personal information; for example that the handling should be legal and carried out in the correct manner and according to best practice. The data being handled should be adequate and relevant. The information should be handled only if it is essential to the objectives of the activity.

Particularly rigorous rules apply for the handling of sensitive personal information, i.e. information on race or ethnic background, political views, religious or philosophical convictions, trade union membership and health or sexual circumstances. The handling of sensitive personal information for research purposes is permitted by explicit consent from the registered individual. It is permitted even without such consent, if it is essential and approved by a regional ethics committee or is reported in advance to the Data Inspection Board, for advance control.

In the Official Statistics Ordinance (2001:100), there are specific rules outlining the extent to which sensitive information can be handled in the production of official statistics within the different statistical areas. Sensitive information, which can be handled for the production of official statistics, can also be used for other statistics and research. According to the Personal Data Act, sensitive personal data may always be handled after explicit agreement from the registered person.

8.3 Longitudinal databases – key databases

The Official Statistics Act (2001:99), which came into force in April 2001, states that, for research and statistical purposes, it is possible to release data with a serial number, which can be linked to a personal identity number by the statistical authority using a key. Such data can be released if the recipient has a specific need to add additional material later, such as the next year's information.

This release of anonymised material with a key means that the data, according to the Personal Data Act, will be considered as personal information for the recipient. The recipient of the data then becomes responsible for personal data and is obliged to follow the rules laid out in the Personal Data Act.

8.4 Inquiries

A written request for the data required should be sent to the contact person at Statistics Sweden. When the data is to be used for research, Statistics Sweden would like to see a project description attached. If the research project has been tested by an ethics committee, the application and decision should also be attached. In cases where the data can be released, Statistics Sweden will specify the delivery conditions, quality of the information and price in an offer.

9 References

Information relating to the TPR can be found in the documentation listed below, broken down under the following headings:

- Population registration
- Total Population Register (TPR)
- Contents
- Quality and methods
- Laws and ordinances
- Regional divisions
- System and techniques

9.1 Population registration

Den svenska folkbokföringens historia under tre sekler, Brochure SKV 710, Nr 1, June 1982, National Tax Board.

Flytta från Sverige – Snabbfakta, Folder SKV 703-2, Nr 1, October 2004, NationalTax Board.

Flytta inom Sverige – Snabbfakta, Folder SKV 703-1, Nr 1, October 2004, National Tax Board.

Moving abroad? Information in Swedish and English, Brochure SKV 701, Nr 2, March 2003, National Tax Board.

Handbok i folkbokföring, del 1 och del 2, National Tax Board. (currently being updated)

Population Registration in Sweden, SKV 717B, December 2004, National Tax Board.

Website of the National Tax Board: <u>www.skatteverket.se</u> (see *Folkbokforing* in lefthand column).

The Swedish system for population registration, SKV 711B, January 2000, The National Tax Board.

Vigsel och registrerat partnerskap – Snabbfakta, Folder SKV 703-3, Nr 1, October 2004, National Tax Board.

9.2 Total Population Register (TPR)

A new total population register system, More possibilities and better quality, Background facts on population and welfare statistics 2002:2, SCB.

Registret över totalbefolkningen, RTB 2002, METADOK, Ingvar Johannesson, Statistics Sweden (see Statistics Sweden's website)

Registret över totalbefolkningen, RTB 2002, SCBDOK, Ingvar Johannesson, Statistics Sweden.

9.3 Contents

Familj, civilstånd och sammanboende. Terminologi och definitioner, Reports on Statistical Coordination for Sweden's Official Statistics 1999:1, Statistics Sweden.

Landskoder i folkbokföringen,2003-09-01, Unit for Base Data, National Tax Board. <u>www.skatteverket.se</u> (see *Folkbokföring* in lefthand column).

Länder och världsdelar m.m. 2004, 2005-02-15, Unit for Population and Income Databases, Statistics Sweden.

Personer med utländsk bakgrund. Riktlinjer för redovisning i statistiken, Reports on Statistical Coordination for Sweden's Official Statistics 2002:3, Statistics Sweden.

Personnummer, Brochure SKV 704, Nr 7, March 1999, National Tax Board.

Prioritering av medborgarskap, BV/BE, Statistics Sweden.

Regionala indelningar (see below).

9.4 Quality and methods

General

Kvaliteten i Registret över totalbefolkningen, RTB, 2001-03-07, Anna Wilén, Ingvar Johannesson, BV/BE, Statistics Sweden.

Kvalitets- och metodfrågor vid användningen av administrativa data, Tre fallstudier inom befolkningsstatistiken, Report, 1990-02-28, Jan Qvist, U/STM, Statistics Sweden.

Kvalitetsrapporten 1991, Utveckling av kvaliteten för SCB:s statistikproduktion, R&D Report 1991:14, 1991-09-12, Quality Group, Statistics Sweden.

Controls

Automatiska kontroller vid folkbokföringen, 2004-11-23, I Johannesson, BV/BI, Statistics Sweden.

Kontroller vid uppdatering av RTB, 2004-11-23, I Johannesson, Unit for Population and Incomes Databases, Statistics Sweden.

Overcoverage

Brister i folkbokföringen – övertäckningen bland utomnordiska invandrare, Metodrapport BoR-avdelningen 1995:2, Åke Nilsson, Statistics Sweden.

Methods for estimating over-registration of immigrants in Sweden, 1996-01-09, Ingvar Johannesson, Programme for Population Statistics, Statistics Sweden.

Skattning av övertäckningen i folkbokföringen med hjälp av SCB:s inkomstregister, Methodology Report, Department for Population and Welfare 1997:11, Åsa Greijer, Statistics Sweden.

Täckningsproblem i Registret över totalbefolkningen RTB, Skattning av övertäckning med en indirekt metod, R&D Report 1999:1, Jan Qvist, Statistics Sweden. *Uppskattning av övertäckningen i folkbokföringen med hjälp av AKU*, Metodology Report, Department for Population and Welfare 1997:12, Åsa Greijer, Statistics Sweden.

Uppskattningen av övertäckningen i RTB avseende utlandsfödda med hjälp av AKU, Metodology Report, Department for Population and Welfare 1995:3, Åsa Greijer, Statistics Sweden.

Övertäckningen i Registret över totalbefolkningen – en studie i postreturer, Metodology Report, Department for Population and Welfare 1996:7, Åsa Greijer, Statistics Sweden.

9.5 Laws and ordinances

Population registration, general

Ordinance on handling of personal data in population registration of the tax administration (2001:589)

Act on handling of personal data in population registration of the tax administration (2001:182)

Ordinance on Population Registration (1991:749)

Population Registration Act (1991:481)

Immigration and emigration

Ordinance on Aliens (1989:547)

Aliens Act (1989:529)

Agreement between Sweden, Denmark, Finland, Iceland and Norway on population registration (1989:1007)

Parents and children

Recognition of Nordic paternity settlement (1979:1001)

Recognition of execution of foreign guardianship settlement etc. and transfer of children (1989:14)

Parental Code (1949:381)

International paternity issues (1985:367)

International legal conditions concerning adoption (1971:796)

Citizenship

Ordinance on citizenship (2001:218)

Swedish Citizenship Act (2001:82)

Civil status

Proclamation on application for marriage licences for persons officiating marriage proceedings outside Sweden (1973:948)

Ordinance on registered partnerships (1994:1341)

Registered Partnership Act (1994: 1117)

Proclamation on the absence of impediments to marriage according to the law of a foreign state (1973:950)

Act on international legal relations relating to marriage and guardianship (1904:26)

Ordinance on international legal relations relating to marriage, adoption and guardianship (1931:429)

Marriage Code (1987:230)

Proclamation on marriage certificates (1969:123)

Death

Funerals Ordinance (1990:1147)

Funerals Act (1990:1144)

Inheritance Code (1958:637)

Administrative legislation, confidentiality Legislation on time calculations laid down by law (1930:173)

Law on service of process (1970:428)

Legislation on governmental personal address register (1998:527)

Administrative Procedure Act (1986:223)

Fictitious Personal Data Act (1991:483)

Personal Data Act (1998:204)

Secrecy Act (1980:100)

9.6 Regional divisions

Regional divisions and changes in regional breakdowns published by Statistics Sweden in the series: Reports on Statistical Coordination (MIS). In general, comprehensive MIS reports have been published every 3rd or 4th year, the year following election year, or when there have been changes in breakdowns on a wider scale. In addition to the MIS noted below, an annual supplement is published containing the changes that have come into force during the past year until 1 January.

Information on regional divisions can also be found on Statistics Sweden's website: <u>www.scb.se</u> (under Special topics in the lefthand column).

MIS 1966:2	Regional divisions in statistical reporting
MIS 1968:4	Regional divisions in statistical reporting
MIS 1969:1	Regional codes according to the breakdown on 1 January 1969
MIS 1970:4	Amended regional codes at the turn of the year 1970/71. Preliminary issue
MIS 1971:3	Regional codes according to the breakdown on 1 January 1971
MIS 1973:8	Regional codes for counties, municipalities and parishes (church districts) according to the breakdown on 1 January 1974
MIS 1973:12	Sweden's municipalities 1952-1974. Changes in municipality divisions and codes
MIS 1974:4	Regional codes according to the breakdown on 1 January 1974

MIS 1975:5	Regional codes for non-administrative fields
MIS 1977:1	Regional codes for counties, municipalities and parishes (church districts) according to the breakdown on 1 January 1977
MIS 1977:4	Regional codes for administrative and non-administrative fields
MIS 1980:5	Sweden's municipalities 1952-1980 Changes in municipality divisions and codes
MIS 1983:3	Regional codes for counties, municipalities and parishes (church districts) according to the breakdown on 1 January 1983
MIS 1986:3	Regional codes for counties, municipalities and parishes (church districts) and diocese, deaneries, group of parishes and secondary school areas according to the breakdown on 1 January 1986
MIS 1986:4	Regional codes for administrative and non-administrative fields according to the breakdown on 1 January 1986
MIS 1986:5	<i>Sweden's municipalities 1952-1986. Changes in municipality divisions and codes</i>
MIS 1989:2	Regional codes for counties, municipalities and parishes (church districts) and diocese, deaneries, group of parishes and secondary school areas according to the breakdown on 1 January 1989
MIS 1989:3	Regional codes for administrative and non-administrative fields according to the breakdown on 1 January 1989
MIS 1992:2	Regional codes for counties, municipalities, parishes and other administrative and non-administrative fields according to the breakdown on 1 January 1992
MIS 1995:3	Regional codes according to the breakdown on 1 January 1995
MIS 1998:2	Regional codes according to the breakdown on 1 January 1998
MIS 2003:1	Regional divisions in Sweden on 1 January 1993. Part 1

Sweden's parishes over time (ISBN 91-38-12923-2). See the National Tax Board's website.

9.7 Systems and techniques

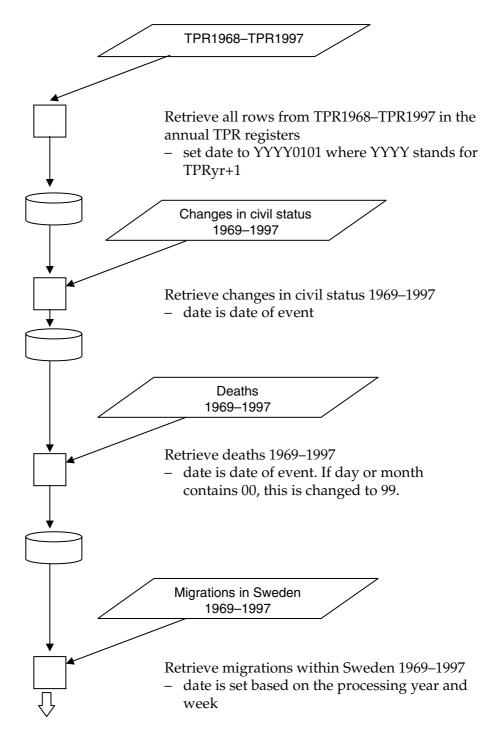
Dates – Translating year/weeks into an acceptable calendar date, Kristina Sundell, BV/BE, Statistics Sweden.

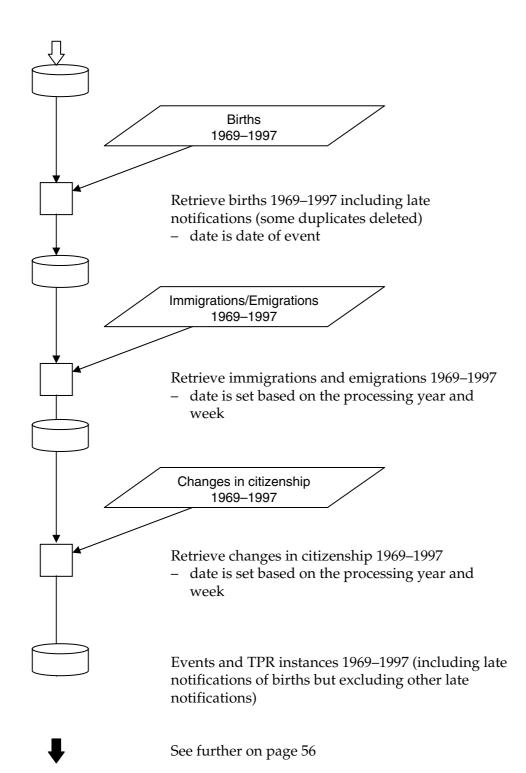
Notification of population registration data, General description, 2004-02-02, Skatteverket. (See the National Tax Board's website: <u>www.skatteverket.se</u> (see *Folkbokföring* in lefthand column).

Technical description of notification and selection of population registration data from the notification register, National Tax Board's website: <u>www.skatteverket.se</u> (ses Folkbokföring in lefthand column).

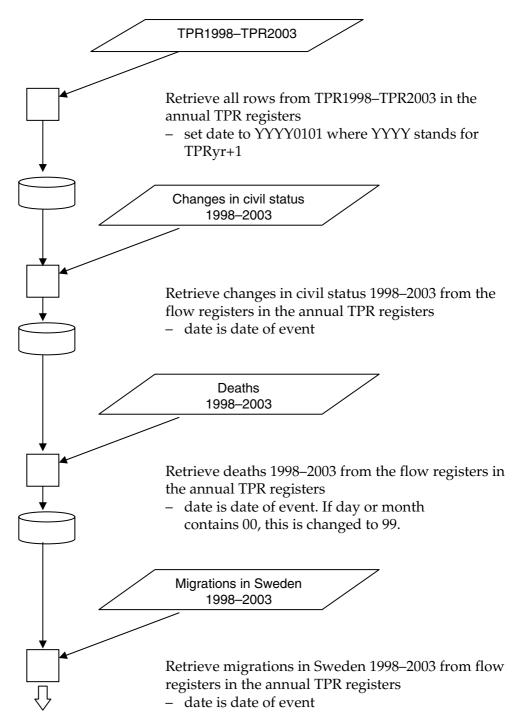
Appendix 1

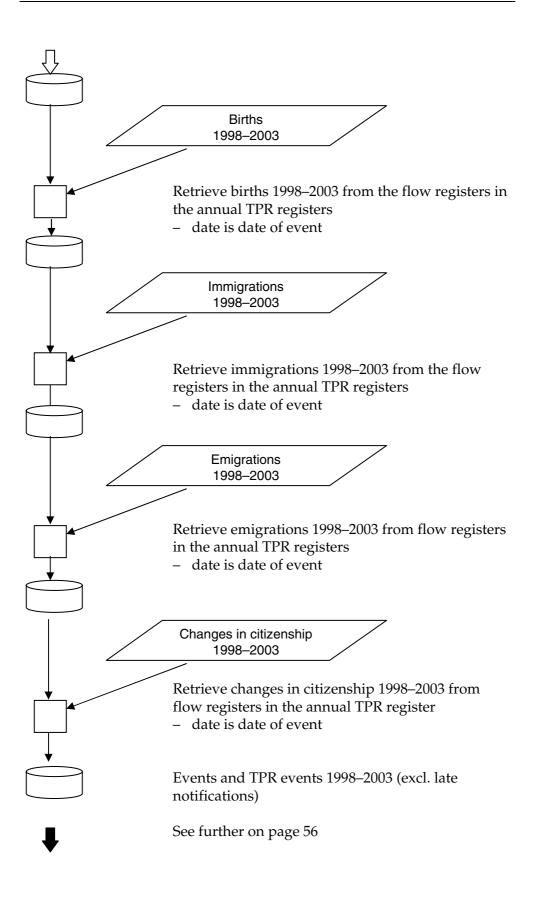
Historical Population Register – input 1969–1997



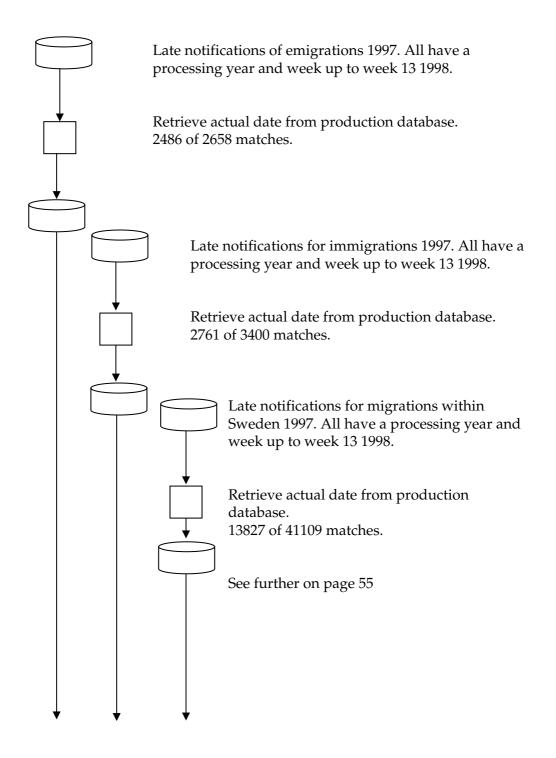


Historical Population Register – input 1998–2003

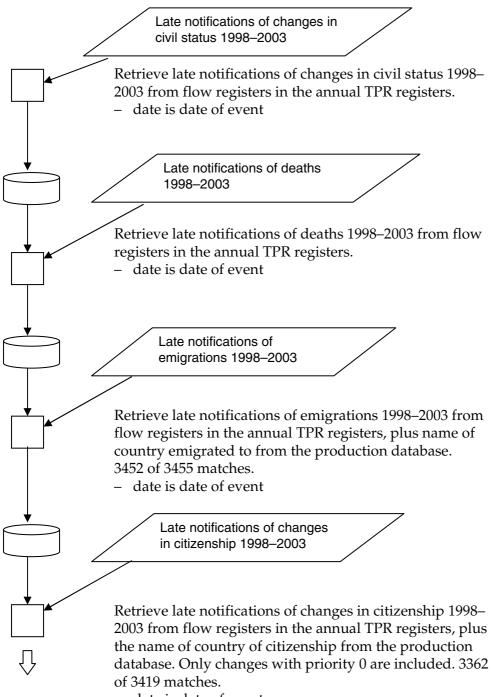




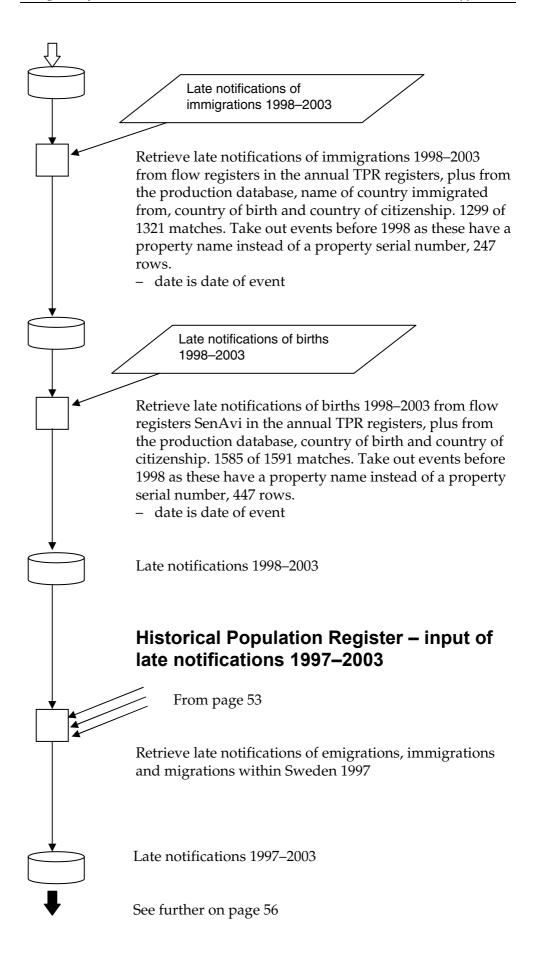
Historical Population Register – input of late notifications 1997

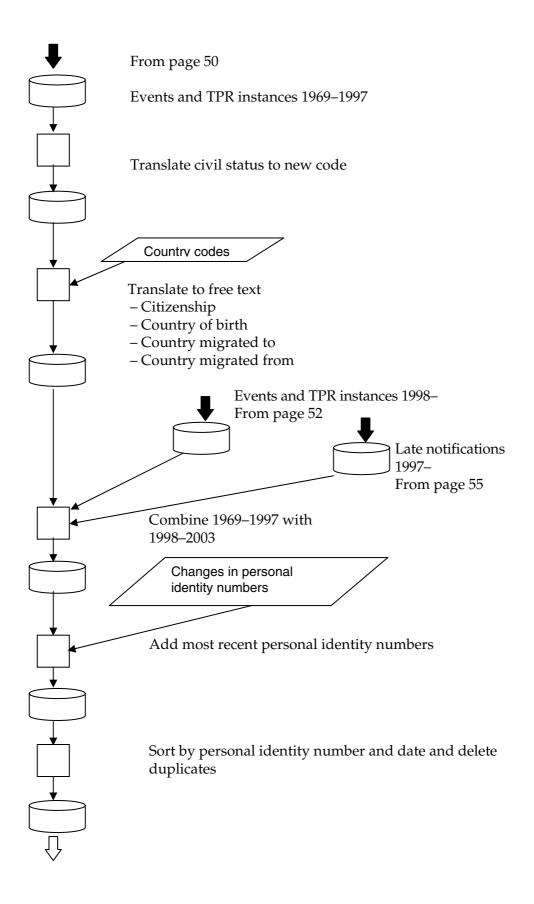


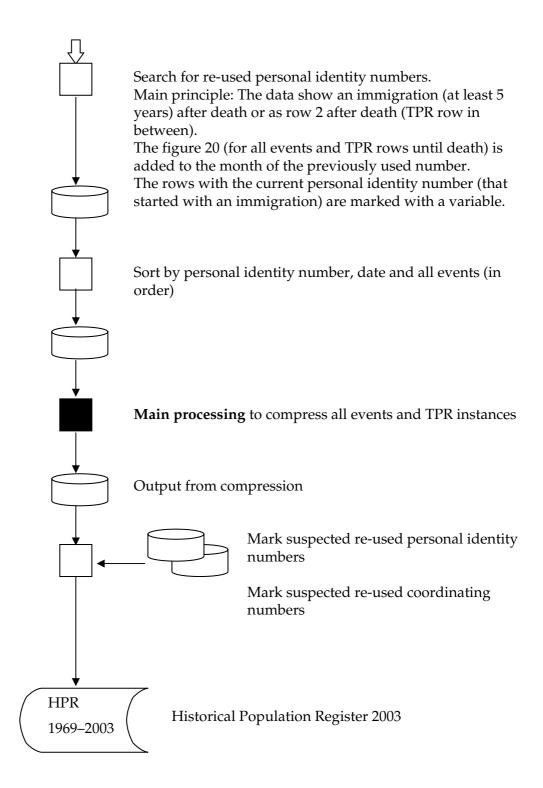
Historical Population Register – input of late notifications 1998-2003



- date is date of event







Appendix 2

Example of how instances in the TPR stock registers and demographic events create the HPR

Figure 1 (input) shows how all demographic events and instances in the TPR stock registers for an individual form the basis for the creation of rows for the individual in the HPR.

Figure 2 (output) illustrates how the rows are created in the HPR on the basis of Figure 1.

To make it easier to understand, the column names in figures 1 and 2 have been simplified and some columns have been excluded.

Figure 1, consisting of the input to the HPR, shows all 36 events and instances in the TPR stock registers for one individual up to 1997 (to limit the example). The row number that will appear in the final database table has also been shown here in bold. This constitutes the output (figure 2). The relation between input and output is explained in the following example.

The first three rows, marked as **row 1** in the input (figure 1) consist of instances in TPR1969-01-01, TPR1969 and TPR1970. The first event occurs after this. The migration within Sweden in row 4 in the input forms a new row in the output (row 2). The date for when the migration occurred terminates the first row in the output, date to, and also forms the date from in row 2. In row 2 in the output, it is also marked that the individual is in the TPR stock register 1971.

Row 3 in the output is formed by the change in civil status in row 6 in the input. The date is filled in with the migration within Sweden and marks are made to show instances in the TPR stock registers from 1972 until 1978. The next event for the individual occurs in 1979, a migration within Sweden, which is treated in the same way as the previous migration.

Row 5 in the output is formed by a change in breakdown between TPR1980 and TPR1981, when the property serial number for the individual's registered address changes. A mark is made in the column for change in breakdown.

The variables are explained in section 4.

Figure 1 Example of events and instances in the TPR that form the basis (input) for the creation of rows in the HPR, figure 2

Personummer	Datum	Försam-	FastG	Försam-	Fast	Födelse-	Medb-	Kön	Civil	Civ-	Född	Död	Immi	Utv-	Emi	Inv-	Inrikes	Medb-	RTB	RT
		lingG		ling		land	land			ändr				land		and	Flytt	byte	år	rac
19444444444	19690101			188301	3707	SVERIGE	SVERIGE	1	OG	0	0	0	0		0	_	0	0	68	1
19444444444	19700101	Rad 1		188301	3707	SVERIGE	SVERIGE	1	OG	0	0	0	0		0		0	0	69	1
19444444444	19710101			188301	3707	SVERIGE	SVERIGE	1	OG	0	0	0	0		0		0	0	70	1
19444444444	19710913	188301	3707	188004	64195	SVERIGE	SVERIGE	1	OG	0	0	0	0		0		1	0		0
19444444444	19720101	Rad 2		188004	64195	SVERIGE	SVERIGE	1	OG	0	0	0	0		0		0	0	71	1
19444444444	19720429			188004	64195	SVERIGE	SVERIGE	1	G	1	0	0	0		0		0	0		0
19444444444	19730101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	72	1
19444444444	19740101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	73	1
19444444444	19750101	Rad 3		188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	74	1
19444444444	19760101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	75	1
19444444444	19770101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	76	1
19444444444	19780101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	77	
19444444444	19790101			188004	64195	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	78	
19444444444	19790709	188004	64195	188404	37265	SVERIGE	SVERIGE	1	G	0	0	0	0		0		1	0		(
19444444444	19800101	Rad 4		188404	37265	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	79	
19444444444	19810101			188404	37265	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	80	
19444444444	19820101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	81	
19444444444	19830101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	82	
19444444444	19840101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	83	
19444444444	19850101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	84	
19444444444	19860101	Rad 5		188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	85	
19444444444	19870101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	86	
19444444444	19880101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	87	
19444444444	19890101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	88	
19444444444	19900101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	89	1
19444444444	19910101			188404	2965	SVERIGE	SVERIGE	1	G	0	0	0	0		0		0	0	90	
19444444444	19910304	188404	2965	188002	7155	SVERIGE	SVERIGE	1	G	0	0	0	0		0		1	0		(
19444444444	19910610	188002	7155	188002	7170		SVERIGE	1	G	0	0	0	0		0		1	0		(
19444444444	19911008			188002	7170		SVERIGE	1	S	1	0	0	0		0		0	0		C
19444444444	19920101			188002	7170		SVERIGE	1	S	0	0	0	0		0		0	0	91	
19444444444	19930101			188002	7170	SVERIGE	SVERIGE	1	S	0	0	0	0		0		0	0	92	
19444444444	19940101	Rad 8		188002	7170		SVERIGE	1	S	0	0	0	0		0		0	0	93	
19444444444	19950101			188002	7170	SVERIGE	SVERIGE	1	S	0	0	0	0		0		0	0	94	
19444444444	19960101			188002	7170	SVERIGE	SVERIGE	1	S	0	0	0	0		0		0	0	95	
19444444444	19970101			188002	7170	SVERIGE	SVERIGE	1	S	0	0	0	0		0		0	0	96	
19444444444	19980101			188002	7170	SVERIGE	SVERIGE	1	S	0	0	0	0		0		0	0	97	1

Figure 2 Rows created (output) in the HPR on the basis of the example in figure 1

Personnummer	DatumFrån	DatumTill	Kön	Civil	Medb-	Födelse-	Född	Död	Immi	Utv-	Emi	Inv-	Civ-	Medb-	Inrikes	Indel-	Försam-	Fast	Försam-	FastG
					land	land				land		land	ändr	byte	flytt	ändr	ling		lingG	
19444444444	19690101	19710913	1	1	SVERIGE	SVERIGE	0	0	0		0		0	0	0	0	188301	3707		
19444444444	19710913	19720429	1	1	SVERIGE	SVERIGE	0	0	0		0		0	0	1	0	188004	64195	188301	3707
19444444444	19720429	19790709	1	2	SVERIGE	SVERIGE	0	0	0		0		1	0	0	0	188004	64195		
19444444444	19790709	19820101	1	2	SVERIGE	SVERIGE	0	0	0		0		0	0	1	0	188404	37265	188004	64195
19444444444	19820101	19910304	1	2	SVERIGE	SVERIGE	0	0	0		0		0	0	0	1	188404	2965		
19444444444	19910304	19910610	1	2	SVERIGE	SVERIGE	0	0	0		0		0	0	1	0	188002	7155	188404	2965
19444444444	19910610	19911008	1	2	SVERIGE	SVERIGE	0	0	0		0		0	0	1	0	188002	7170	188002	7155
19444444444	19911008	19980101	1	4	SVERIGE	SVERIGE	0	0	0		0		1	0	0	0	188002	7170		

RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	
68	69	70	71	72	73	74	75	76	77	78	79	80	81	
1	1	1	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	1	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	1	1	1	1	1	1	1	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	1	1	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	RTB	FelKod
83	84	85	86	87	88	89	90	91	92	93	94	95	96	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	
							1	0	0	0	0	0	0	
1	1	1	1	1	1	1			0				0	
1 0	1 0	1 0	1 0	1 0	1 0	0	0	0	0	0	0	0	0	
1 0 0	•	1 0 0	1 0 0							0	0	0	-	

Appendix 3

Variables

This appendix presents a detailed description of the variables taken from the various TPR registers to the Historical Register.

A comprehensive list of all variables is given in chapter 4, where the technical and derived variables, such as time information and error codes, are presented.

The following variables are detailed here:

•	Civil status	\$
٠	Property names	3
•	Country of birth72)
•	Parish73	;
٠	Country migrated to73	;
•	Sex	;
•	Citizenship73	;
•	Personal identity number)
•	Country migrated from	F

Civil status

Civil status states whether a person is, has been or has never been married/a registered partner. Since 1998, civil status is shown by a letter code of a maximum of two letters.

Codes in the new TPR system (from 1998)

The following civil status codes were introduced when the new TPR system was brought into operation from 1998 onwards.

Code	Meaning
OG G	unmarried married
S	divorced
Ä	widow/widower
RP	registered partner
SP	separated partner
EP	partner surviving

On 1 January 1995, a new law came into force making it possible for two individuals of the same sex to register a partnership.

Codes in old TPR system (before 1998)

The following civil status codes were used in the old TPR system during the period 1968–1997.

eaning
married person
arried man
arried woman not living with husband
vorced person
dow/widower
arried woman living with husband
ildren under 18
ster children under 18

Persons aged under 18 can, in some cases, have a different civil status code than 8 and 9.

For children/foster children living at home (code 8 or 9) who reach the age of 18 before or on 1/11, the civil status code 1(unmarried person) is given automatically in week 43 of the same year. Children reaching the age of 18 during the period 2/11 - 31/12 are given the civil status code 1 automatically in week 43 of the following year.

Regulations

- Marriage Code
- Ordinance(1931:429) on certain international legislative systems relating to marriage, adoption and guardianship.
- Act (1904:26) on international legal relations relating to marriage, adoption and guardianship.
- Proclamation (1973:948) on application for marriage licences for Swedish persons officiating marriage proceedings outside Sweden.
- Proclamation (1973:950) on the absence of impediments to marriage according to the law of a foreign state.
- Ordinance (1987:1015) on declarations on applications for a marriage licence.
- Act on the right to officiate marriage proceedings within other religious communities than the Swedish church.
- Registered Partnerships Act (1994:117).

Civil status when immigrating

A person stating that he or she is unmarried is registered as such if there is no evidence to the contrary.

A person stating that he or she is married is registered as such on the basis of certified or uncertified evidence.

A person can be registered as divorced or a widow/widower only if the dissolution of marriage is proven. If the person in question does not have this proof, they are registered as married. The person is requested to present evidence to prove their case at a later stage, such as a judgement on the dissolution of marriage or the spouse's death certificate. Persons not being able to prove the dissolution of previous marriages are able, at a later stage, to apply to the district court in Sweden for a statement on the dissolution of marriage or a death certificate of the deceased spouse.

Applications for a marriage licence

Before marriage proceedings take place, an application for a marriage licence is necessary. This application should be made to the office of population registration where the woman or man are registered. This application is valid for four months. If the parties have not been married within this time, marriage proceedings cannot be carried out without a new application.

Impediments to marriage for Swedish citizens

- The age limit for marriage is 18 years. A person who has not reached the age of 18 when applying for a marriage licence must have permission from the county administrative board to enter a marriage.
- A marriage cannot take place between persons who are directly ascending or descending relatives or who are full siblings. However, half-siblings can enter into a marriage together on the condition that they have received permission from the government.
- Persons already married or in a registered partnership cannot enter into a new marriage.

Application for a registered partnership

Since 1 January 1995, two persons of the same sex can register their partnership. A registered partnership is largely equivalent to a marriage. Provisions in the laws and other legislation related to marriage and spouses should as a rule be applied in an equivalent manner to registered partners and their partnerships. One example is the regulations in the Names Act on spouse's names.

The registration of partnerships shall, as with marriages, be preceded by an application for a licence. The impediments to a partnership are largely the same as the impediments to marriage.

Impediments to registration of partnerships

For the registration of a partnership, at least one of the partners must be resident in Sweden and be a citizen of Sweden, Denmark, Iceland, the Netherlands or Norway. If this requirement is not fulfilled, one of the partners must instead have been resident in Sweden for at least two years.

Citizens of Denmark, Iceland, the Netherlands and Norway are placed on an equal footing as Swedish citizens because these countries also have legislation on registered partnerships. A partnership that is registered in this country will therefore also be valid in these countries.

In general, the same impediments exist as for marriage, one difference being that a person aged under 18 cannot apply for a registered partnership.

Applications from citizens of Nordic countries

When citizens in Denmark, Finland, Iceland or Norway apply for a licence, the population registration authorities should, as a general rule, apply Swedish law, provided that one of the contracting parties is resident in Sweden. Otherwise, the law of the state of which the applicant is a citizen should be applied. However, Nordic applicants can always request that the law of the Nordic country of which they are a citizen be applied, even if Swedish law would normally be applied.

For applications for a licence for a registered partnership, Swedish law is always applied regardless of the citizenship and residency of those applying.

Applications from citizens of non-Nordic countries

As a rule, the right of a citizen from a non-Nordic country to enter into a marriage should be tried against the law of the country of which he or she is a citizen.

There are two exceptions to this rule:

- 1) Foreign citizens who have been resident in Sweden for at least two years can have their right to enter into marriage tried against Swedish law.
- 2) Foreign citizens who have not been resident in Sweden for at least two years can, on application to the government, apply for a licence according to Swedish law. Such an application can be made when, for example, it has been impossible to get data on a marriage licence according to the law of the country of citizenship or when the law in the country of citizenship requires a certificate that the applicant cannot produce.

When a licence is applied for according to foreign law, this law should be adhered to. In addition, it is always the case that:

- persons under age 15 may not enter into marriage without specific permission from the county administrative board,
- marriage cannot take place between persons who are directly ascending or descending relatives or who are full siblings,
- married persons may not enter into a new marriage until the previous marriage has been dissolved.

A fourteen year old cannot therefore enter into marriage in Sweden without the permission of the county administrative board, even if the age limit for marriage in the home county is 12 years. Persons who are already married may not enter into a marriage in Sweden even if bigamy is permitted in that person's home country.

Application from refugees, stateless persons and persons with unknown citizenship

Refugees should apply for a licence according to the law of the state where they are resident. A refugee who is resident in Sweden can therefore apply according to Swedish law. There is no requirement that the residency must have been for a specific period.

Stateless persons can apply according to the law of the state where they are resident. If they do not have residency of a state, the law of the state where they are staying should be applied. Stateless persons who are resident in Sweden can therefore apply according to Swedish law.

Persons with unknown citizenship are treated in the same way as stateless persons.

Swedish marriage ceremony in Sweden

Both Swedish and foreign citizens have the right to marry in Sweden according to the provisions in Swedish law.

Every priest within the Swedish Church has the authority to perform the marriage ceremony. Within other religions, marriages may be performed by appropriate qualified persons. Legally qualified district court judges have the authority to perform a civil marriage. The county administrative boards can also specially appoint other persons to perform marriage ceremonies.

Swedish marriages abroad

Marriage according to Swedish law can be entered into abroad, on the condition that at least one of the parties is a Swedish citizen.

The government can decree that the diplomatic or consular services or a post such as priest can be given the authority to marry persons abroad. Other appropriate persons may also be given such authority by special ordination.

Foreign marriage ceremonies in Sweden

Marriages can also be carried out in Sweden on the basis of foreign law. The marriage will then be valid in Sweden providing that the person performing the marriage has permission from the Swedish government to carry out marriages in Sweden. Such permission has been given to some foreign priests and diplomatic/consular officials.

A Swedish marriage licence is not usually required for marriages according to foreign law.

Foreign marriage abroad

A Swedish marriage licence is not normally required for a marriage ceremony carried out by a foreign authority. However, a licence from Sweden is valid for marriage ceremonies in the other Nordic countries. The documents required otherwise depend on the provisions in the land where the marriage takes place.

In some exceptional cases, two valid marriages for one person can be registered in the population register.

Registration of partnerships

The above information on marriages also applies for the most part to the registration of partnerships. There are however certain differences:

The ceremony is only civil. Registration cannot be carried out within the Swedish Church or any other religious community. Legally qualified district court judges have the authority to act as registration officials. The county administrative board can also specially appoint persons to act as registration officials.

There are also further requirements for residency in Sweden etc. see above on Application for marriage licence and Impediments for registration of partnerships.

Dissolution of marriage

The following information on dissolution of marriage can also be applied, unless otherwise stated, in a corresponding manner to the dissolution of a registered partnership.

Marriages in Sweden are normally dissolved via a court (district court) judgement on a divorce.

When the judgement becomes legal, the marriage is dissolved. This occurs three weeks after the court announcement, if the divorce has not been appealed in this time.

In many countries, as in Sweden, marriages are dissolved via a divorce. The regulations for how a divorce comes about vary from country to country.

In a few rare cases, a court in Sweden has declared a marriage annulled. This type of court declaration is more common in other countries.

In many countries, it is the authorities who decide on a separation between spouses. Such a decision means that the couple's common housing is given up and that their property is divided. However, the marriage is not dissolved and therefore the couple cannot enter into a new marriage. A similar form of separation existed in Sweden until 1974, called judicial separation.

If a foreign authority makes a decision on the dissolution of a marriage, this is valid in Sweden, on the following conditions:

- at least one of the spouses were a citizen of the country in question when the decision was made,
- the decision has become legal.

If none of the spouses were a citizen of the country in question, the decision must be tried by Svea court of appeal before the couple can be registered as divorced or marry again in Sweden.

There is a special rule for decisions on divorce in Denmark, Finland, Iceland or Norway. If both the man and the woman were citizens of any Nordic country, the decision is valid without going to the court of appeal.

It can happen that an ambassador decides on the dissolution of a marriage for foreign citizens in Sweden. Such decisions are not valid in this country.

Danish and Norwegian decisions on the dissolution of a registered partnership must also be tried at the court of appeal if neither of the parties were citizens of the country in which the decision was made.

Dissolution of marriage/partnership due to death

When an individual who is married or a registered partner dies, the date of death that is registered in the population register should also be registered as the day of the dissolution of the marriage for the remaining spouse/partner.

Property names

A property name shows the address where an individual is or has been registered.

The property name is the property's official identification and should contain a maximum of 40 alphanumeric digits.

Property serial number

When Statistics Sweden brought the new TPR system into operation in 1998, official property designations were introduced to identify property in the system. The internal Statistics Sweden property serial numbers then ceased as property identification in the TPR.

The property's serial number was used as the property identification in the TPR during the period 1981–1997. This serial number was a 5-digit internal Statistics Sweden number running within a parish. When the official property designations ceased to exist in 1981, Statistics Sweden created its own five-digit number to replace this and introduced this number into many of the Statistics Sweden registers. If necessary, the serial number can be translated into the official property name.

Some serial numbers used in special cases include:

Serial number	Meaning
99980	Population registration under heading "Registered in parish"
99990	Population registration under heading "Without known address"
99999	Population registration at address where serial number is missing, "Data missing".

The above-mentioned numbers were included in the official system for property numbers that was applied before 1981 and had the same meaning as above.

Daily rest provision

To determine the town of registration, the daily rest provision is normally applied, i.e. an individual is considered resident at the address where they normally spend their night-time rest period.

If this is not clear, consideration should be taken to where the individual works or has his/her family. A newborn child is registered in the parish where the mother is registered at the time of birth. If the mother was not registered at the time of the child's birth, the child is not registered either at birth.

There are a number of exceptions to the daily rest provision regarding various situations of a temporary or forced character such as short-term stays in a medical institution or correctional facility.

Dual residence

Those who spend their daily rest regularly at more than one property are considered to be resident at the address where they live together with their family or, with regards to other circumstances, can be considered to have their actual home. The term family refers to husband/wife, registered partner, cohabitee (also homosexual cohabitee) and children living at home.

An individual is considered to stay regularly at a property if, with their normal lifestyle, they spend their period of daily rest there at least once a week, or the same amount of time spread differently (e.g. two days over a two week period or four times per month). For individuals without family or two individuals who live together at two different properties, the actual home is to be determined on the basis of other circumstances. Circumstances to be taken into consideration include, firstly, location of workplace and secondly, character of the dwelling (size, furniture, type of tenure, etc.).

Temporary residence

If an individual over a predetermined length of time to a maximum of six months will regularly spend their period of daily rest at another property than their actual home, this is not taken to constitute changed residency.

Family rule

An individual who, over a predetermined length of time, will spend their period of daily rest at a different address within Sweden than that at which their family is resident, is registered with the family as long as the family unit remains intact. However there is no requirement for how much time is spent together during this time. This provision is applicable even if the residence is to be longer than six months.

Students

A student aged under 18 who has their actual home together with their parents or other family member, is considered to be resident there even if they regularly spend their period of daily rest at another property because of studies.

The rule is not applicable for those studying at university or an institute of higher education. An adult student should be registered at the address where they regularly spend their period of daily rest according to the same rules as the rest of the population.

Varying place of residence

Certain individuals have varying residency circumstances and do not spend their period of daily rest regularly at one specific property. This can be due to working situation or other reasons not related to work. Such an individual is seen to be resident at the property to which he/she can be considered to have the strongest connection, based on family and work situation or other circumstances. This means that an individual with varying residency is normally considered to be resident with their family (spouse, cohabitee or children), if they have one.

Posted government employees

Those who are posted abroad in the service of the government are normally registered in Sweden during this posting. The same applies to accompanying family members. This provision primarily relates to Swedish diplomatic employees of the Foreign Ministry and the Swedish International Development Cooperation Agency. Population registration is normally based on the property where the posted employee was last registered. If the individual has no connection to a previous property, the population registration should be given the heading "Registered in parish".

Serviced accommodation for elderly people

Those who are resident in serviced accommodation for the elderly for care or supervision, in a parish other than the one in which they were registered

before moving to the serviced accommodation, can choose to continue to be registered in the old parish.

They are then registered at the property at which they were previously registered, under the heading "Registered in parish". On special grounds, they can be registered at another property in the parish, such as if a retired person has a special connection to a specific property, via children or other relative.

Medical care, care of young persons, care of addicts and correctional facilities

The period of daily rest that an individual spends in an institution for medical care, care of young persons, care of addicts or in a correctional facility should not be taken into consideration when identifying the place of residence. An individual should normally not be considered resident at a property where they are forced to spend time. The same applies to stays of a more voluntary nature as those in need of care are normally not in a position to choose where the care shall be received. This exception means that individuals should normally retain their registration in the population register when being admitted to an medical care institution, correctional facility, etc.

Because the stays that are covered by this exception are not considered to lead to changed residency, the individual normally retains their previous registration. If the individual's family should move, the individual is considered to move with them, regardless of whether they have been, for example, admitted to a correctional facility.

Members of Parliament, cabinet ministers, persons on military duty, etc.

Residency that is linked solely to the performance of military service or unarmed military duty, members of the Swedish Parliament, cabinet ministers, members of committees or boards and bearers of a politically appointed post or duty, such as political advisors at ministries or those on specific missions on behalf of the Swedish Parliament should not result in a change in registration.

Registered in parish

Even if an individual is not resident at any particular property, he or she should be registered in a particular parish if, on the basis of the settlement provisions, they can be considered to be resident in the parish. They are therefore registered under the heading "Registered in parish". One example is an individual who lives in a caravan that regularly stands in a particular parish but not at a particular property.

However, those with a mobile home (such as a caravan or houseboat) that is permanently positioned at a particular property should not be registered in the parish but at the property.

For persons registered under the term "Registered in parish", a property address cannot be included. A specific postal address should, however, be included.

An individual should be removed from a specific postal address and transferred to "Without known address" if they can no longer be reached at the registered property.

Without known address

An individual whose address and town of residency, despite all possible investigation, remain unknown are registered under the heading "Without known address". An individual who has been registered under this heading for a continuous period of two years, is deregistered as a "nonexistent person".

Notification of moves

Notification of moves should be submitted within one week of the move.

The obligation to notify even applies when the move takes place between two different dwellings within one property.

Date of population registration

When moving, the new registration is effective from the actual date of the move if the move was notified within one week.

If a notification of a move is not submitted in time, the new registration is effective from the date that the notification was received by any of the appropriate authorities (Posten, the Social Insurance Office or the National Tax Board).

When a decision on population registration is taken without notification, the new registration is effective from the day the decision was taken.

Before 1998, the year and week of the registration of a move was reported as the date of the move.

Country of birth

Country of birth refers to the country where an individual was born. Since 1998, country of birth has been reported in free text, to a maximum of 40 characters.

Change in regulations

Until 1947, all persons born abroad were considered foreign-born. Since 1947, children born abroad are considered to be Swedish-born if the mother is entered in the population register in Sweden at the time of their birth.

This means that a child born abroad of a mother who is registered in Sweden at the time of birth is given the country where the birth took place as country of birth. At the same time, the child is given the same county and the parish of birth as those in which the mother is registered.

Change to Sweden

When an individual has a foreign country of birth and a Swedish county as county of birth, Statistics Sweden changes the country of birth to Sweden in the final observation register to avoid confusion.

Breakdown of countries as at time of birth

In principle, the country of birth should be registered with its name at the time of birth even if the name has later been changed due to administrative, linguistic, political or other reasons. The same applies if the country has ceased to exist. Some consideration can be taken on emotional grounds, however, for persons who are born in or citizens of a country which, after their birth, has become independent. These can then be

registered as born in the newly-independent country. For example, an individual who was born in Kiev in the Soviet Union can, on their request, be registered as born in Kiev, Ukraine.

Parish

Parish refers to the administrative parish in which an individual is or has been registered.

Parish is represented by an official, numerical, six-digit code as follows:

- County code 2 digits
- Municipality code 2 digits
- Parish code 2 digits

Reference

See also the variable Property names, where the regulations for settlement are reported, i.e. in which parish and property an individual should be registered.

Changes in breakdowns

During the period 1968-2003, a variety of smaller and more significant changes in the breakdowns of parishes have taken place. Changes in the administrative breakdowns for county, municipalities and parishes are reported in the publication series Reports on Statistical Coordination (MIS), issued by Statistics Sweden.

MIS on administrative breakdowns since 1968 are presented in **Chapter 1.4**, **Documentation and metadata**.

Country migrated to

Country migrated to refers to the country <u>to</u> which the most recent emigration from Sweden took place. Country migrated to is given in free text, to a maximum of 40 characters.

Country migrated to is given according to the country breakdowns applicable at the time of emigration.

Sex

Sex is a derived variable showing whether an individual is male or female. Sex is given by a one-digit code.

Codes

Data on sex is given by codes as follows:

Citizenship

Citizenship shows an individual's membership as a citizen of a particular state. Citizenship is given in free text, to a maximum of 40 characters.

Regulations

Data on citizenship is based on the legislation and regulations applicable for citizenship in Sweden and other countries.

The legislation applicable in Sweden is as follows:

- The Swedish Citizenship Act (2001:82)
- Ordinance on Citizenship (2001:218)
- Aliens Ordinance (1989:547)

The following description of citizenship outlines the most essential regulations and provisions. Further information can be found in the statutes mentioned above and in the handbook on population registration.

Citizenship in population registration

Citizenship has been registered and stored in the population registration since 1999 as a two-character code (country code) according to international ISO standards (ISO 3166). Before 1999, a two-character alphabetic code was used (not <u>ISO standard</u>) designated by the population registration authorities.

Translation to free text

Since 1998, Statistics Sweden has translated the codes for citizenship into free text in Swedish when inputting into the TPR system. The standard used for the country names in the TPR is the same as that used by the population registration authorities, i.e. ISO 3166, which shows the standard for country names in both free text and codes.

Special designations

In addition to the name of existing countries, data on citizenship contains the follows designations: Stateless, Under investigation, Ceased country, Unknown, NULL (data missing).

Only mother countries

Where citizenship is registered in the population register, occupied regions, colonies and regions under mandate or trusteeship are related back to the mother country. Citizenship should in principle refer to a currently existing independent state.

Recognised states

As new states are formed, new countries of citizenship are added. According to current praxis, a new country of citizenship can only be used once Sweden has recognised the state in question.

Prioritising several citizenships

A maximum of three citizenships per person can be registered in the population register. When an individual has more than one citizenship, these are prioritised and only one is reported in the TPR's final observation register.

The TPR applies the same prioritising rules as the National Social Insurance Board. In brief, the order of priority is as follows:

- 1) Swedish citizenship
- 2) Citizenship of EEA country

- 3) Citizenship of a country outside the EEA with which Sweden has a mutual social insurance agreement
- 4) Other citizenship

If citizenship is of countries with the same priority, the citizenship held first is chosen.

General information about citizenship

The registration of person's citizenship constitutes an essential part of the information about a person's identity. Data on Swedish citizenship is a prerequisite for compulsory military service and the right to vote, as well as the possibility for holding certain public posts and offices. Citizenship is also of significance when registering residency and circumstances under family law, such as marriage, guardianship, adoption, paternity and name.

For those who have one of several foreign citizenships over and above their Swedish citizenship, only the Swedish citizenship is registered. For a Swedish citizen therefore, population registration does not show if they are citizens of another country as well.

For those with one or several foreign citizenships, all these are registered in the population register.

When a person immigrates, an assessment of their citizenship is carried out, firstly on the basis of their passport.

Acquisition of Swedish citizenship

Swedish citizenship can be acquired in several ways: automatically, after notification or application.

Swedish citizenship can be acquired:

- at birth or after adoption,
- by the marriage of parents of children aged under 18 years
- by notification,
- by application,
- as a minor.

According to Swedish citizenship legislation, children can acquire Swedish citizenship at birth from both their father and mother. This is the same as in many other countries, which means that children can acquire dual citizenship at birth.

When a child of a Swedish mother or father immigrates to Sweden, the population registration authority must always examine whether the child has acquired Swedish citizenship, even if all documents presented, passport, inter-Nordic certificate or change of address state that the child has foreign citizenship only. In the population register however only the Swedish citizenship is registered.

Acquisition as a minor means that if the father or mother of a child aged under 18 years becomes a Swedish citizen automatically or after consent, that child acquires their citizenship.

Loss of Swedish citizenship

A Swedish citizen can lose their citizenship as follows:

- through the acquisition of certain foreign citizenships,
- statutory limitations on long-term residence abroad for foreign-born persons,
- after a decision from the Swedish Migration Board on the release from citizenship.

Examination of citizenship

An examination of a person's citizenship must always be carried out:

- when they move to Sweden from abroad,
- when their child is born or when registering paternity,
- when they adopt a child aged under 12 years,
- when parents enter into a marriage in which one of them is a foreign citizen.

Birth of a child

A child's citizenship must always be examined before their birth is registered.

When registering a child's birth when only one of the parents is a Swedish citizen, the population registration authority must always first examine whether the child should acquire Swedish citizenship at birth.

If the child does not acquire Swedish citizenship, the population registration authority must examine whether the child should acquire the same citizenship as the second parent.

If neither of the parents is a Swedish citizen, the population registration authority should form an opinion on the child's citizenship. If the child does not acquire either of the parents' citizenships, the child becomes stateless.

A child will also be stateless if both its parents are stateless. If the parents' citizenship is unknown, the child should also be registered with unknown citizenship.

Acquisition/loss through marriage

It is currently quite rare that a person, by entering into marriage, acquires the citizenship of the other party.

Swedish men or women who automatically acquire the citizenship of another through entering into marriage do not lose their Swedish citizenship. However, if the man/woman applies for citizenship in the other country, they then lose their Swedish citizenship.

Acquisition of Swedish citizenship at birth

A child acquires Swedish citizenship at birth when:

- 1) the mother is a Swedish citizen
- 2) the father is a Swedish citizen and is married to the child's mother
- 3) the father is deceased but was a Swedish citizen at the time of his death and married to the child's mother.

Acquisition of Swedish citizenship through notification

- 1) Children (aged under 18) of a Swedish man and a foreign woman who are not married to each other can acquire Swedish citizenship through notification.
- 2) A foreign person aged between 21 and 23 can, in certain circumstances notify the Swedish Migration Board that he/she wishes to acquire Swedish citizenship. The person should then have lived in Sweden continuously since they were 16 years old and previously have been resident in Denmark, Finland, Norway or Sweden for at least 5 years in total.
- 3) A person that was a Swedish citizen at birth but who subsequently lost that citizenship can reacquire this citizenship by notifying the Swedish Migration Board or the county administrative board, on the condition that the person was resident in Sweden until the age of 18. The person can then, two years after moving back to Sweden, after notification, reacquire his/her Swedish citizenship, as long as the foreign citizenship ceases. Residence in Denmark, Finland, and Norway until the age of 12 is considered equivalent to residence in Sweden.
- 4) The legislation also provides special conditions for Danish, Finnish and Norwegian citizens to become Swedish citizens via notification to the county administrative board. These conditions are that the person in question:
 - acquired their citizenship in a way other than through naturalisation,
 - has reached the age of 18,
 - has been resident in Sweden for 5 years and
 - has not been sentenced to prison during the previous five years.
- 5) In addition, a Danish, Finnish or Norwegian citizen who has previously had Swedish citizenship can reacquire this citizenship by notifying the county administrative board, as soon as he/she becomes resident in Sweden again.

Acquisition of Swedish citizenship via adoption

Children under the age of 12 who are adopted by Swedish citizens can in certain circumstances acquire Swedish citizenship via the adoption, namely if:

- the adoption takes place in Sweden or another Nordic country,
- the adoption takes place abroad according to the Hague Convention on the protection of children and cooperation in respect of intercountry adoption,
- the adoption takes place abroad and is approved by the Swedish Intercountry Adoptions Authority (MIA). The same applies if the MIA has decreed that a foreign adoption decision is to be applicable in Sweden. Citizenship enters into force from the moment of the adoption decision.

The regulation on acquisition of Swedish citizenship via adoption is also applicable in cases where a Swedish parent adopts the children of their foreign spouse.

Acquisition of Swedish citizenship via parents' marriage

Children to a Swedish man and a foreign woman can, in certain circumstances, become Swedish citizens when the parents get married. The citizenship is acquired at the moment of the entry into marriage. The circumstances are as follows:

- paternity is established according to the regulations,
- the child is under the age of 18 and
- the child is unmarried.

From 1 July 1979, it has been the case that children of a Swedish woman can keep their Swedish citizenship when their parents marry. The child can therefore have dual citizenship if, according to the law in the father's home country, they acquire the citizenship of their father through marriage.

Acquisition of Swedish citizenship as a minor

When a person acquires Swedish citizenship after notification to the county administrative board or the Swedish Migration Board, their children that are resident in Sweden can become Swedish citizens as minors, in certain circumstances. These circumstances are as follows:

- the children are under the age of 18 and are unmarried,
- the parent that becomes a Swedish citizen via notification is the sole guardian for the children. If both parents are guardians, it is necessary that the other parent is already a Swedish citizen or that both parents become Swedish citizens at the same time via notification.

Acquisition of Swedish citizenship as a minor is also applicable for unmarried adopted children under the age of 18, on the condition that the adoption has taken place according to one of the following four alternatives:

- the adoption has taken place in Sweden or another Nordic country,
- the adoption takes place abroad according to the Hague Convention on the protection of children and cooperation in respect of intercountry adoption,
- the adoption takes place abroad and is approved by the Swedish Intercountry Adoptions Authority (MIA),
- a father or mother has adopted their own children.

Acquisition of Swedish citizenship through naturalisation

The Swedish Migration Board can grant Swedish citizenship after application for naturalisation. Naturalisation means that the decisionmaking authority carries out an independent assessment of the citizenship conditions and announces a special decision that can be appealed at the Aliens Appeals Board.

In some cases, the applicant must attest that he/she has been released from his/her previous citizenship by a decision from the appropriate authority within a specific time, also called conditional naturalisation. If the Swedish Migration Board finds that this condition has been fulfilled, the applicant can become a Swedish citizen from the day that proof of release is submitted to the Migration Board.

Loss of Swedish citizenship

Swedish citizenship can be lost in the following cases:

- after acquisition of a foreign citizenship through naturalisation or notification,
- by accepting a post in another government, when this brings with it the acquisition of the country's citizenship,
- loss as a minor,
- loss by statutory limitation (for foreign-born persons who have never been resident in Sweden),
- by a decision of the Swedish Migration Board after application.

Personal identity number

A personal identity number is a uniform indication of identity for physical persons.

The TPR system stores personal identity numbers with 12 digits:

- Year 4 digits
- Month 2 digits
- Day 2 digits
- Birth number 3 digits
- Control digit 1 digit

See also below, Personal identity numbers in the ADP (automated data processing) system.

Legislation

Provisions on personal identity numbers can be found in §18 of the Population Registration Act (1991:481).

General information about personal identity numbers

Personal identity numbers in their current form were introduced in 1967 but a system using the date of birth in combination with a three-digit birth number appeared as early as in 1947.

Every individual who is registered in the population register should have a personal identity number as their identity. Personal identity numbers can, in certain cases, also be established for persons who are not registered in the population register.

Once a person receives a personal identity number, they keep the same number all their life, as long as it is not necessary to revise incorrect numbers. Personal identity numbers do not change in connection with a move to or from Sweden, for example.

Personal registration numbers consist of three parts:

- Date of birth
- Birth number
- Control digit

Date of birth

Date of birth is given by six digits. The digits have the following order:

- Two digits from the year of birth
- Digits for month of birth
- Digits for day of birth

Birth number

The birth number consists of three digits. These are figures somewhere between 001 - 999 and are odd for men and even for women. Persons born on the same day should have different birth numbers. By combining digits for the date of birth with different birth numbers for those born on the same day, all persons obtain a different identity.

The digit that the birth number begins with is of no importance. From 1990 onwards, birth numbers were allocated randomly from one series for the whole country, whereas there was previously a separate number series for each county. The only information that can currently be seen from the personal identity number is date of birth and sex. There is a hyphen between the date of birth and the birth number, which is changed to a cross (+) for persons aged over 100 years. However, these are not stored in the TPR system's registers and not usually in other personal registers either.

Control digit

The control digit, introduced in 1967, is calculated automatically on the basis of the date of birth (six digits) and the birth number (three digits), and is added to the birth number as a fourth digit. Using this digit, it is possible to automatically verify when processing that the digits in the date of the birth number are correct.

Allocation of personal identity number at birth

The authority responsible for population registration establishes personal identity numbers for children when they are registered at birth in the population register. The authority further assigns personal identity numbers to persons who have immigrated to Sweden and who have not previously had a personal identity number.

Allocation of personal identity numbers on immigration

Personal identity numbers for persons immigrating to Sweden are assigned when the immigration is registered in the population register. The authority responsible for population registration must first check that the person does not already have a personal identity number, from a previous period of residence in the country.

In certain foreign passports, the date of birth given is incomplete (only the year of birth is given). The date of birth should therefore be registered from another document or, if such a document is not available, on verbal confirmation. When the date of birth is noted by verbal confirmation, the dates of 1 January and 1 July should be avoided. This date of birth should only be registered if the person immigrating is completely certain that they were born on these dates. Those who do not know the date of birth should be requested by the authority to choose a suitable date.

The number and name for persons who have been allocated a personal identity number are compiled in a central reference register. However, registered persons who died before 1980 are not included in this register.

Coordinating numbers

In some cases, the tax authorities can allocate personal identity numbers for registration for other purposes than population registration. This can for example be for tax registration purposes or for registration with a social insurance agency for those who will not be entered in the population register.

These allocated personal identity numbers have previously had the same universal appearance as a normal personal identity number and can therefore not easily be distinguished. Since 2000, a change was made so that a coordinating number is allocated instead. Coordinating numbers are similar to personal identity numbers, but differ in that the number 60 is added to the digit for the day of birth.

Coordinating numbers can be allocated for the following purposes:

- Registration in the tax register
- Registration in the police register or other registers within the judicial system
- Issuing of passports and registration in the passport register
- Registration in the social insurance register
- Registration of sailors
- Registration in the drivers' licence register and vehicle register
- Registration in the compulsory military service register
- Registration in registers of persons covered under the Act on Immunity and Privileges in Certain Cases (1976:661)

If necessary, coordinating numbers can be changed for the same reasons as for changes in personal identity numbers (see below).

Use of personal identity numbers

Personal identity numbers as personal identifiers have been used extensively, not only for population registration but also for other administrative purposes, such as taxation, military service, general insurance, the registration of vehicles, driver's licences, passports and in the education sector.

Personal identity numbers are also used to a great extent outside the government sector, such as in business accounting routines and in registers kept by insurance companies and banks. It is therefore common that personal identity numbers are used as a search term in ADP-supported personal registers and as a link when coordinating several personal registers.

One form of joint processing carried out using personal identity numbers is the notification of changes in the population registration to other personal registers.

Personal identity numbers in ADP systems

Within the ADP system for population registration, personal identity numbers are stored with twelve digits, where the two first digits show the century the person was born in. The figure for century can be 18, 19 or 20.

The twelve-digit personal identity number is included in notifications of population registration data to other authorities via a notifications register.

The figure for century is particularly significant when storing and processing data on personal identity numbers in ADP-supported personal registers.

Example:

Personal identity number 640823-3234 for an individual born on 23 August 1964 is stored in the ADP register as follows: 196408233234

Note! This personal identity number is fictitious and does not belong to any individual.

Calculation of control digit

The control digit is determined according to the module -10 method using weighting factors 1 and 2. The figure is then attached to the birth number once it has been calculated by the following formula:

The example refers to a man born on 23 August 1964 with the birth number 323.

Year of birth		Month of birth		Day of birth		Birth number		
6	4	0	8	2	3	3	2	3

The figures in the year of birth, month of birth, day of birth and birth number are multiplied alternately with 2 and 1.

2	1	2	1	2	1	2	1	2

The figures then become:

12 4 0 8 4 3 6 2 6

The figures are added together. Note! 12 is counted as 1+2.

1+2+4+0+8+4+3+6+2+6=36

The second digit in the total is subtracted from 10 and the remaining figure is the control digit. If the remaining figure is 10, the control digit will be 0.

10-6=4

Control digit = 4

The personal identity number then becomes 640823-3234

Change of personal identity number

Every year, slightly over 1000 individuals change their personal identity number. The majority of these changes are for the following reasons:

- Registration of incorrect date of birth at the time of immigration (most common) or at birth (relatively uncommon).
- Registration of incorrect sex at time of immigration or birth (relatively uncommon).
- Sex changes (relatively uncommon).
- Two individuals with the same personal identity number (relatively uncommon).

An individual has two personal identity numbers (relatively uncommon).

A consequence of changing personal identity numbers is that it appears that individuals have "disappeared" and then "reappeared" in the TPR registers without being linked to an emigration or an immigration.

Reuse of personal identity numbers

When a new personal identity number is given to an individual who has immigrated, the authority responsible for population registration checks with a database of already used personal identity numbers. The numbers for persons who died before 1980 and who were registered in Sweden at the time of their death are, however, not included in this database. There is therefore a risk that an immigrating individual is given a personal identity number that has already been used by another deceased individual.

A reused identity can lead to significant problems, not least for Statistics Sweden. Every reused personal identity number results in a risk for the mix-up of data for the two individuals with the same identity. In many ADP systems, it is not possible to differentiate between the different individuals that are concealed behind a reused personal identity number. As a result, confusion can arise on which data are correct when carrying out longitudinal studies, for example within the field of epidemiology. The same is the case for genealogy in different databases when contradictory data can appear.

For personal identity numbers that have been reused, supplementary processing must be carried out to determine which data can be considered relevant for the individual in question. One possibility being considered within the framework of the TPR system is to set parameters to show the period within which a personal identity number is valid and, on the basis of this, choose variables, for example, such as citizenship, country of birth, personal identity number for parents, etc.

To reduce the risk for the reuse of personal identity numbers in the future, the population registration database of used personal identity numbers should be supplemented with the personal identity numbers for individuals who were registered and died before 1980.

Shortage of personal identity numbers

Another problem that can result in the reuse of personal identity numbers is that the birth numbers for certain days are starting to come to an end. This is because certain days of birth for individuals who have immigrated are overrepresented. In passports and other official documents of immigrants, it is common that the month and day of birth has been stated as 0701 or 0101 when the exact date of birth is not known. In all the TPR's registers, the date of birth 19570701 occurs for 466 men, of which 415 were entered in the population register on 31 December 2000. The dates that occur most frequently are noted below.

Date	Total number of occurrences	Number in TPR 2000
19570701	466	415
19550701	456	382
19560701	451	396
19600101	431	364
19650101	427	366

Men

Women

Date	Total number of occurrences	Number in TPR 2000
19660101	360	319
19640101	324	280
19650101	321	274

Personal identity numbers with the month and day of birth stated as 0101 and 0701 are still allocated to a great extent. The most frequently occurring dates of birth for men immigrating during 2000 are presented in the table below.

Men

Date	Total number of occurrences
XXXX0101	271
XXXX0701	269
XXXX0702	146
XXXX0321	145
XXXX0201	141
XXXX0301	135
XXXX0401	127
XXXX1001	127

For individuals whose date of birth cannot be confirmed, it is desirable that the allocation of personal identity numbers should be carried out in such a way as to ensure a more even distribution within a month. If the current method is not changed, there will not be any vacant personal identity numbers for certain dates of birth, such as 19570701, which will cause a problem if it is confirmed that the birth took place on this date. If, despite this, personal identity numbers for certain dates come to an end, it should never under any circumstances be permitted to reuse personal identity numbers that belonged to individuals who have emigrated or died.

Country migrated from

Country migrated from shows the country <u>from which</u> immigration to Sweden has taken place.

Country migrated from is given in free text, to a maximum of 40 characters.

Country migrated from is given according to the country breakdowns that were applicable at the time of the emigration.

Individuals who were registered in conjunction with the transfer from a register for "non-existent persons" are registered with the code OB for country migrated from.

Appendix 4

Historical Population Register

Table 1

Number of persons

Comparison between the number of persons in the Historical Population Register (HPR), the TPR's stock registers and the Population Statistics part 3, table 1.1

Year	HPR	TPR	Comparison HPR/TPR	Population statistics	Comparison HPR/Popul.	Comparison TPR/Popul.
1968	7 930 995	7 931 772	-777	7 934 996	-4 001	-3 224
1969	8 003 082	8 004 371	-1 289	8 004 377	-1 295	-6
1970	8 080 184	8 081 230	-1 046	8 081 229	-1 045	1
1971	8 114 184	8 115 438	-1 254	8 115 426	-1 242	12
1972	8 127 717	8 129 161	-1 444	8 129 160	-1 443	1
1973	8 142 015	8 143 463	-1 448	8 144 428	-2 413	-965
1974	8 176 257	8 176 447	-190	8 176 691	-434	-244
1975	8 208 165	8 208 427	-262	8 208 442	-277	-15
1976	8 235 980	8 236 144	-164	8 236 179	-199	-35
1977	8 266 716	8 266 936	-220	8 267 116	-400	-180
1978	8 283 979	8 284 261	-282	8 284 437	-458	-176
1979	8 302 777	8 303 094	-317	8 303 010	-233	84
1980	8 317 645	8 317 967	-322	8 317 937	-292	30
1981	8 322 796	8 323 038	-242	8 323 033	-237	5
1982	8 327 153	8 327 488	-335	8 327 484	-331	4
1983	8 330 194	8 330 577	-383	8 330 573	-379	4
1984	8 342 303	8 342 633	-330	8 342 621	-318	12
1985	8 357 893	8 358 139	-246	8 358 139	-246	0
1986	8 381 253	8 381 519	-266	8 381 515	-262	4
1987	8 413 858	8 414 089	-231	8 414 083	-225	6
1988	8 458 647	8 458 888	-241	8 458 888	-241	0
1989	8 526 746	8 527 039	-293	8 527 036	-290	3
1990	8 590 266	8 590 630	-364	8 590 630	-364	0
1991	8 643 572	8 644 120	-548	8 644 119	-547	1
1992	8 691 630	8 692 013	-383	8 692 013	-383	0
1993	8 744 607	8 745 109	-502	8 745 109	-502	0
1994	8 815 919	8 816 381	-462	8 816 381	-462	0
1995	8 837 080	8 837 496	-416	8 837 496	-416	0
1996	8 843 998	8 844 499	-501	8 844 499	-501	0
1997	8 847 121	8 847 625	-504	8 847 625	-504	0
1998	8 854 038	8 854 322	-284	8 854 322	-284	0
1999	8 861 151	8 861 426	-275	8 861 426	-275	0
2000	8 882 514	8 882 792	-278	8 882 792	-278	0
2001	8 908 847	8 909 128	-281	8 909 128	-281	0
2002	8 940 543	8 940 788	-245	8 940 788	-245	0
2003	8 975 485	8 975 670	-185	8 975 670	-185	0
2004	9 011 308	9 011 392	-84	9 011 392	-84	0

Number of births

Comparison between the number of births in the Historical Population Register (HPR), the TPR's events registers and the Population Statistics part 4, table 2.1

Comparison Events/Popul.		Population Statistics	Number of late notifications	Comparison HPR/Events		HPR	Year
0	14	108 493	18	14	108 493	108 507	1969
0	18	111 079	23	18	111 079	111 097	1970
0	20	115 389	24	20	115 389	115 409	1971
0	35	113 037	39	35	113 037	113 072	1972
0	33	110 451	36	33	110 451	110 484	1973
0	51	110 606	50	51	110 606	110 657	1974
0	47	104 235	49	47	104 235	104 282	1975
0	54	98 890	54	54	98 890	98 944	1976
0	90	96 549	90	90	96 549	96 639	1977
-26	145	93 703	171	171	93 677	93 848	1978
510	156	96 697	506	-354	97 207	96 853	1979
156	157	97 500	156	1	97 656	97 657	1980
83	86	94 445	86	3	94 528	94 531	1981
170	171	93 122	172	1	93 292	93 293	1982
144	151	92 120	147	7	92 264	92 271	1983
178	188	94 270	183	10	94 448	94 458	1984
133	138	98 851	136	5	98 984	98 989	1985
107	122	102 373	113	15	102 480	102 495	1986
51	62	105 111	57	11	105 162	105 173	1987
47	59	112 502	58	12	112 549	112 561	1988
24	49	116 446	48	25	116 470	116 495	1989
47	126	124 381	116	79	124 428	124 507	1990
0	210	124 201	201	210	124 201	124 411	1991
0	214	123 244	198	214	123 244	123 458	1992
0	232	118 398	196	232	118 398	118 630	1993
0	184	112 605	166	184	112 605	112 789	1994
0	179	103 772	127	179	103 772	103 951	1995
0	157	95 627	86	157	95 627	95 784	1996
0	172	90 816		172	90 816	90 988	1997
-324	-81	89 352		243	89 028	89 271	1998
-339	-115	88 512		224	88 173	88 397	1999
-355	-105	90 796		250	90 441	90 691	2000
-349	-93	91 815		256	91 466	91 722	2001
-352	-93	96 167		259	95 815	96 074	2002
-359	-181	99 516		178	99 157	99 335	2003
-333	-333	101 261		0	100 928	100 928	2004

The deviation in 1979 is due for the most part to duplicate notifications of newborns.

Stillborn births are reported in the Historical Population Register and in the events registers until 1997. Non-registered second twins have been corrected.

Table 3 Number of dea

Number of deaths

Comparison between number of deaths in the Historical Population Register, the TPR events register and the Population Statistics part 4, table 2.1

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	83 329	83 355	-26	83 352	-23
1970	80 021	80 025	-4	80 026	-5
1971	82 735	82 736	-1	82 717	18
1972	84 056	84 059	-3	84 056	0
1973	85 642	85 645	-3	85 640	2
1974	86 319	86 323	-4	86 316	3
1975	88 221	88 224	-3	88 208	13
1976	90 685	90 689	-4	90 677	8
1977	88 226	88 232	-6	88 202	24
1978	89 717	89 720	-3	89 681	36
1979	91 115	91 122	-7	91 074	41
1980	91 842	91 846	-4	91 800	42
1981	92 067	92 067	0	92 034	33
1982	90 710	90 710	0	90 671	39
1983	90 836	90 837	-1	90 791	45
1984	90 541	90 543	-2	90 483	58
1985	94 079	94 082	-3	94 032	47
1986	93 351	93 348	3	93 295	56
1987	93 357	93 360	-3	93 307	50
1988	96 787	96 785	2	96 743	44
1989	92 137	92 146	-9	92 110	27
1990	95 211	95 215	-4	95 161	50
1991	95 222	95 214	8	95 202	20
1992	94 746	94 741	5	94 710	36
1993	97 083	97 071	12	97 008	75
1994	91 895	91 884	11	91 844	51
1995	93 979	93 955	24	93 955	24
1996	94 160	94 133	27	94 133	27
1997	93 363	93 275	88	93 326	37
1998	93 578	93 271	307	93 271	307
1999	95 098	94 726	372	94 726	372
2000	93 548	93 461	87	93 461	87
2001	93 829	93 752	77	93 752	77
2002	95 081	95 009	72	95 009	72
2003	93 013	92 961	52	92 961	52
2004	90 530	90 532	-2	90 532	-2

Number of immigrations

Comparison between the number of immigrations in the Historical Population Register, the TPR's events registers and the Population Statistics part 4, table 2.1

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	65 121	65 131	-10	64 503	618
1970	77 654	77 731	-77	77 326	328
1971	42 887	42 903	-16	42 615	272
1972	30 099	30 101	-2	29 894	205
1973	29 656	29 662	-6	29 443	213
1974	37 757	37 753	4	37 430	327
1975	44 432	44 443	-11	44 133	299
1976	45 713	45 725	-12	45 492	221
1977	44 252	44 259	-7	44 005	247
1978	36 376	36 374	2	36 187	189
1979	37 193	37 183	10	37 025	168
1980	39 543	39 566	-23	39 426	117
1981	32 341	32 343	-2	32 272	69
1982	30 459	30 465	-6	30 381	78
1983	27 572	27 575	-3	27 495	77
1984	31 600	31 591	9	31 486	114
1985	33 192	33 194	-2	33 127	65
1986	39 576	39 576	0	39 487	89
1987	42 769	42 767	2	42 666	103
1988	51 307	51 300	7	51 092	215
1989	65 996	65 981	15	65 866	130
1990	60 138	60 178	-40	60 048	90
1991	49 804	49 806	-2	49 731	73
1992	45 334	45 419	-85	45 348	-14
1993	61 865	61 935	-70	61 872	-7
1994	83 552	83 653	-101	83 598	-46
1995	45 913	45 951	-38	45 887	26
1996	39 907	39 955	-48	39 895	12
1997	47 666	44 872	2 794	44 818	2 848
1998	49 551	49 391	160	49 391	160
1999	50 027	49 839	188	49 839	188
2000	58 830	58 659	171	58 659	171
2001	60 964	60 795	169	60 795	169
2002	64 259	64 087	172	64 087	172
2003	63 930	63 795	135	63 795	135
2004	62 024	62 028	-4	62 028	-4

Table 5Number of emigrations

Comparison between the number of emigrations in the Historical Population Register, the TPR's events registers and the Population Statistics part 4, table 2.1

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	20 326	20 906	-580	20 360	-34
1970	28 802	28 821	-19	28 653	149
1971	39 916	39 939	-23	39 560	356
1972	42 609	42 627	-18	41 579	1 030
1973	41 581	41 596	-15	40 342	1 239
1974	29 422	29 435	-13	28 352	1 070
1975	28 151	28 163	-12	27 249	902
1976	25 902	25 911	-9	25 522	380
1977	21 604	21 610	-6	21 078	526
1978	22 712	22 726	-14	22 168	544
1979	23 724	23 726	-2	23 467	257
1980	30 058	30 061	-3	29 839	219
1981	29 545	29 548	-3	29 440	105
1982	28 609	28 622	-13	28 381	228
1983	25 661	25 666	-5	25 269	392
1984	23 023	23 024	-1	22 825	198
1985	22 190	22 191	-1	22 036	154
1986	24 986	24 987	-1	24 495	491
1987	21 862	21 860	2	20 673	1 189
1988	21 814	21 808	6	21 461	353
1989	21 796	21 788	8	21 484	312
1990	25 376	25 374	2	25 196	180
1991	24 854	24 846	8	24 745	109
1992	25 853	25 852	1	25 726	127
1993	30 101	30 093	8	29 874	227
1994	32 969	32 951	18	32 661	308
1995	34 479	34 469	10	33 984	495
1996	34 299	34 266	33	33 884	415
1997	41 754	39 073	2 681	38 543	3 211
1998	39 091	38 518	573	38 518	573
1999	36 294	35 705	589	35 705	589
2000	34 751	34 091	660	34 091	660
2001	32 705	32 141	564	32 141	564
2002	33 468	33 009	459	33 009	459
2003	35 446	35 023	423	35 023	423
2004	36 583	36 586	-3	36 856	-273

Number of changes in citizenship

Comparison between the number of changes in citizenship in the Historical Population Register, the TPR's changes register and the Population Statistics part 4, table 2.1

Year	HPR	Changes Register	Comparison HPR/Changes	Population Statistics	Comparison HPR/Popul.
1969	12 703	13 512	-809	11 655	1 048
1970	13 015	12 654	361	11 539	1 476
1971	11 574	10 482	1 092	9 421	2 153
1972	10 812	11 102	-290	10 305	507
1973	13 470	11 747	1 723	12 900	570
1974	13 893	15 708	-1 815	16 153	-2 260
1975	16 552	16 545	7	16 705	-153
1976	20 634	21 828	-1 194	22 089	-1 455
1977	25 177	24 654	523	24 907	270
1978	23 699	22 901	798	23 146	553
1979	22 879	23 359	-480	23 553	-674
1980	22 002	20 565	1 437	20 833	1 169
1981	19 196	18 685	511	18 858	338
1982	18 383	18 107	276	18 303	80
1983	17 255	18 180	-925	18 327	-1 072
1984	22 449	21 688	761	21 844	605
1985	20 348	20 305	43	20 498	-150
1986	21 101	20 466	635	20 695	406
1987	20 211	19 745	466	19 958	253
1988	18 154	17 722	432	17 966	188
1989	16 821	17 284	-463	17 552	-731
1990	16 623	16 455	168	16 770	-147
1991	26 206	27 507	-1 301	27 663	-1 457
1992	29 845	29 352	493	29 389	456
1993	40 658	42 657	-1 999	42 659	-2 001
1994	36 917	35 065	1 852	35 084	1 833
1995	33 482	31 989	1 493	34 361	-879
1996	25 971	25 549	422	25 552	419
1997	27 962	28 878	-916	28 884	-922
1998	46 153	46 520	-367	46 520	-367
1999	37 502	37 777	-275	37 673	-171
2000	43 102	43 474	-372	43 474	-372
2001	35 965	36 399	-434	36 399	-434
2002	37 294	37 792	-498	37 792	-498
2003	32 772	33 222	-450	33 222	-450
2004	28 593	28 893	-300	28 893	-300

A relatively large amount of immigration took place at the beginning of the 1990. Changes to Swedish citizenship are registered later in the HPR than in the Events Registers.

Number of migrations within Sweden

Comparison between the number of migrations within Sweden in the Historical Population Register, the TPR's events registers and the Population Statistics, part 1, chart A

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	639 301	694 378	-55 077	694 378	-55 077
1970	711 119	704 658	6 461	704 658	6 461
1971	663 825	662 649	1 176	662 649	1 176
1972	691 816	680 024	11 792	680 024	11 792
1973	716 756	725 435	-8 679	722 781	-6 025
1974	674 582	722 238	-47 656	722 238	-47 656
1975	692 807	693 037	-230	693 037	-230
1976	649 270	649 455	-185	649 455	-185
1977	599 805	599 955	-150	599 955	-150
1978	1 062 912	1 063 037	-125	1 063 037	-125
1979	1 090 391	1 090 431	-40	1 090 430	-39
1980	1 142 845	1 142 889	-44	1 142 882	-37
1981	1 085 384	1 087 882	-2 498	1 087 890	-2 506
1982	1 130 873	1 130 469	404	1 128 725	2 148
1983	1 100 745	1 102 619	-1 874	1 104 363	-3 618
1984	1 088 347	1 089 724	-1 377	1 089 681	-1 334
1985	1 079 006	1 080 794	-1 788	1 080 820	-1 814
1986	1 117 369	1 118 914	-1 545	1 118 920	-1 551
1987	1 029 328	1 030 183	-855	1 030 190	-862
1988	1 094 483	1 094 902	-419	1 094 906	-423
1989	1 108 832	1 108 982	-150	1 108 982	-150
1990	1 107 874	1 108 100	-226	1 108 100	-226
1991	1 190 552	1 186 895	3 657	1 186 895	3 657
1992	1 075 930	1 079 967	-4 037	1 079 967	-4 037
1993	1 160 112	1 160 141	-29	1 158 141	1 971
1994	1 257 515	1 254 891	2 624	1 254 890	2 625
1995	1 186 239	1 188 936	-2 697	1 188 911	-2 672
1996	1 231 432	1 231 269	163	1 231 267	165
1997	1 317 680	1 296 838	20 842	1 296 840	20 840
1998	1 300 167	1 301 515	-1 348	1 241 406	58 761
1999	1 301 820	1 299 041	2 779	1 240 910	60 910
2000	1 250 146	1 247 383	2 763	1 192 082	58 064
2001	1 220 242	1 217 319	2 923	1 164 018	56 224
2002	1 208 549	1 206 198	2 351	1 155 118	53 431
2003	1 235 424	1 233 603	1 821	1 181 804	53 620
2004	1 263 803	1 264 216	-413	1 210 483	53 320

The deviations at the beginning of the 1970s are due to changes in breakdowns at the time of the municipal union reforms.

Deviations from 1997 are because migrations within a property were not registered in the Population Statistics.

Number of marriages

Comparison between the number of marriages in the Historical Population Register, the TPR's events registers and Population Statistics part 4, table 2.1

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	48 298	48 357	-59	48 357	-59
1970	43 264	43 278	-14	43 278	-14
1971	39 902	39 918	-16	39 918	-16
1972	38 623	38 636	-13	38 636	-13
1973	38 245	38 251	-6	38 251	-6
1974	44 859	44 864	-5	44 864	-5
1975	44 102	44 103	-1	44 103	-1
1976	44 789	44 790	-1	44 790	-1
1977	40 372	40 370	2	40 370	2
1978	37 842	37 844	-2	37 844	-2
1979	37 297	37 300	-3	37 300	-3
1980	37 568	37 569	-1	37 569	-1
1981	37 792	37 793	-1	37 793	-1
1982	37 051	37 051	0	37 051	0
1983	36 212	36 210	2	36 210	2
1984	36 853	36 849	4	36 849	4
1985	38 301	38 297	4	38 297	4
1986	38 908	38 906	2	38 906	2
1987	41 224	41 223	1	41 223	1
1988	44 238	44 229	9	44 229	9
1989	108 939	108 917	22	108 919	20
1990	40 502	40 479	23	40 477	25
1991	36 850	36 836	14	36 836	14
1992	37 198	37 173	25	37 173	25
1993	34 043	34 005	38	34 005	38
1994	34 259	34 203	56	34 203	56
1995	33 725	33 642	83	33 642	83
1996	33 667	33 484	183	33 484	183
1997	33 031	32 313	718	32 313	718
1998	32 409	31 598	811	31 598	811
1999	36 597	35 682	915	35 628	969
2000	40 965	39 895	1 070	39 895	1 070
2001	36 840	35 778	1 062	35 778	1 062
2002	39 129	38 012	1 117	38 012	1 117
2003	39 884	39 041	843	39 041	843
2004	43 087	43 088	-1	43 088	-1

Number of divorces

Comparison between the number of divorces in the Historical Population Register, the TPR's events registers and the Population Statistics part 4, table 2.1

Year	HPR	Events Register	Comparison HPR/Events	Population Statistics	Comparison HPR/Popul.
1969	12 132	12 140	-8	12 140	-8
1970	12 941	12 943	-2	12 943	-2
1971	13 541	13 540	1	13 540	1
1972	15 177	15 179	-2	15 179	-2
1973	16 021	16 021	0	16 021	0
1974	26 801	26 802	-1	26 802	-1
1975	25 382	25 383	-1	25 383	-1
1976	21 698	21 702	-4	21 702	-4
1977	20 390	20 391	-1	20 391	-1
1978	20 316	20 317	-1	20 317	-1
1979	20 323	20 322	1	20 322	1
1980	19 888	19 887	1	19 887	1
1981	20 202	20 198	4	20 198	4
1982	20 772	20 766	6	20 766	6
1983	20 620	20 618	2	20 618	2
1984	20 378	20 377	1	20 377	1
1985	19 767	19 763	4	19 763	4
1986	19 112	19 107	5	19 107	5
1987	18 436	18 426	10	18 426	10
1988	17 754	17 746	8	17 746	8
1989	18 869	18 862	7	18 862	7
1990	19 376	19 357	19	19 357	19
1991	20 178	20 149	29	20 149	29
1992	21 930	21 907	23	21 907	23
1993	21 713	21 673	40	21 673	40
1994	22 282	22 237	45	22 237	45
1995	22 614	22 528	86	22 528	86
1996	21 552	21 377	175	21 377	175
1997	21 392	21 009	383	21 009	383
1998	21 222	20 761	461	20 761	461
1999	21 401	21 000	401	21 000	401
2000	21 939	21 502	437	21 502	437
2001	21 392	21 022	370	21 022	370
2002	21 597	21 323	274	21 323	274
2003	21 376	21 130	246	21 130	246
2004	20 105	20 106	-1	20 106	-1

Appendix 5

Quality in the Total Population Register

1 The Total Population Register (TPR)

The TPR was formed in 1968

In 1967 population registration was computerised at both regional and central level and the following year, using the population registration as a basis, Statistics Sweden established a register system called the Total Population Register (TPR). The TPR consists of information on the population and population changes and should, to a great extent, reflect the content of the population registration.

Basis for population statistics

The TPR contains data that are of fundamental significance for information on Sweden's population. The system includes registers that form the basis for the official population statistics and provide basic data for a large number of Statistics Sweden's activities.

Continuous notification of changes in the population

The National Tax Board is the central authority with the overall responsebility for population registration. Data (notifications) on changes in the population register are reported on a continuous basis from the National Tax Board to Statistics Sweden and the TPR. The notifications contain data on births, deaths, migrations, changes of address, changes in civil status, immigrations and emigrations.

A new TPR system with more variables

The variable content in the TPR register is, to a great extent, the same as at the beginning in 1968. Until 1998, notifications were delivered on magnetic tape once a week. From 1998, "new" notifications have been delivered on a daily basis via the telephone network. The new notifications have a differrent format and slightly more variables compared to the old system. When the new notification system came into use, a new TPR system was launched in a PC environment with database-oriented client/server technology.

Registers for statistical production

Every month, quarter and year, the TPR system produces registers on the total population (stock) and changes in the population (demographic events). These registers are stored in retrieval databases at individual level and are adapted for the production of statistics, sample drawing and record linkage with other registers. The TPR registers are available for every year from 1968 onwards. Certain registers on population changes exist from 1961 onwards.

Internal and external usage

Registers in the TPR system are used internally within Statistics Sweden as a basis for the production of statistics, for sample frames and as data sources for other registers and surveys. The registers are used externally primarily within the framework of commissioned activities, for either planned or ad hoc processing. The data in the TPR are in great demand.

2 Target population

The TPR target population is made up of persons, who according to legislation, ordinances and other regulations regarding population registration <u>should be</u> entered in the population register or <u>have been</u> entered in the population register in Sweden. The TPR register therefore presents persons who either are or have been registered (deceased/ emigrated).

3 Regulations on population registration

Main principle

An individual is registered at the property where he/she is resident. According to the main principle in the population registration ordinance, an individual is considered to be resident at the property where he/she regularly spend their period of daily rest. If this is not clear, consideration should be taken to where the individual works or has his/her family. A newborn child is registered in the parish in which its mother is registered at the time of birth. If the mother was not registered at the time of the child's birth, the child is not registered either at birth.

Exceptions from the main principle

There are certain exceptions from the main principle that can be divided into three groups:

- 1) Persons entered in the population register who do not live in Sweden
- 2) Persons who live in Sweden but who are not entered in the population register
- 3) Persons who are registered at a property other than that at which they live

Persons in group 1 are included in the total population. Persons in group 2 are not included in the total population. Persons in group 3 are included in the total population but, when the total is divided regionally, can appear in a region other than that in which they live.

1. Persons entered in the population register who do not live in Sweden

Persons who are employed abroad in the service of central government, primarily employees of the Foreign Ministry and the Swedish International Development Cooperation Agency, are registered Sweden. This is also the case for family members and Swedish household staff. Persons can continue to be registered in the parish from which they moved. This rule does not apply to persons who are employed abroad by international organisations, such as the UN or the EU. Swedish missionaries and clergymen employed abroad and their accompanying family can be registered in Sweden. Furthermore, Swedish citizens whose residency abroad is intended to last less than one year can be registered in Sweden. When it is unclear at the time of emigration whether the residency abroad will last more or less than one year, the person can be registered in Sweden for up to one year after the emigration. The person is then registered under the heading "Registered in parish" or at the property where they still have a dwelling at their disposal.

2. Persons who live in Sweden but who are not entered in the population register

Persons who, on immigration to Sweden, intend to be resident in Sweden for less than one year are not entered in the population register. Citizens of countries outside the Nordic region must have a residence permit to be entered in the population register. Foreign citizens at foreign embassies or consulates and their staff are not registered in Sweden. Persons in the above-mentioned categories are not therefore included in the TPR register.

3. Persons registered at a property other than that at which they live

- The "family rule" means that if a person does not live together with their family because of their working situation, he/she should still be registered with their family as long as the family unit remains intact.
- If a person has temporary limited employment in another town, they should be registered where they have their actual home.
- Students can be registered either in their home town or in the place of study, depending on the duration of the study programme, their age, civil status, etc. Students at post-upper secondary school level are normally registered in the place of study.
- The rule about spending the regular period of daily rest in a specific property is applicable for persons such as business travellers, travel agents and sailors. These are registered where they can be considered to have their actual home.
- Persons in care homes for the elderly are free to choose to be registered either in the parish of their previous home, at a fictitious property under the heading "registered in parish" or in the parish where the care home is located.
- Admission into hospital, care institution or correctional facility should not result in a change in population registration.

Without known address, "non-existent"

An individual whose address and town of residence, despite all possible investigation, remains unknown is registered at a fictitious property under the heading "without known address". An individual who, for a continuous period of two years, has been registered under the heading "without known address" is deregistered as "non-existent". Transfer to and from the register for "non-existent persons" refers in the majority of cases to persons who have moved from Sweden or moved back to Sweden without notifying the authorities.

Notification of moves, delays

When a person moves, the new population registration is valid from the actual date of the move if the authorities were notified within one week. If the notification of a move is not submitted in time, the new population registration is valid from the day that the notification is submitted to the population register. In a great many cases, the actual move occurred much

earlier than the moment of notification and registration. Before 1998, registration year and week were presented as the moment for the move.

4 Coverage

The ideal content of population registration is defined in the legislation that regulates population registration (target population). There are however persons who should be registered but who are not (under coverage) and also persons who should not be registered but who are (over coverage). There are currently no exact measurements of the size of these deficiencies. Because the content of the TPR databases should mirror the content of population registration, the corresponding under and over coverage problems also apply to the TPR.

Under coverage

Gaps in the reporting of births and immigration result in under coverage. The reporting of births gives rise to many small errors due to the speed of the reporting routines. For newborns, it is estimated that under coverage in the statistical registers is 0.1 per cent of 0 year olds.

Immigration gives rise to under coverage because of the relatively long time between the arrival of individuals to Sweden and the moment when they are entered in the population register. When moving to Sweden, persons with citizenship of a non-Nordic country are often subject to an extensive administrative process before a decision on residency is taken. This means that the time between arrival in Sweden and the registration of immigration can be long. During periods with a large amount of immigration, the administrative handling times can in some cases be even longer. This relates specifically to persons who have not been granted a residence permit and who appeal the decision, which results in a considerable timelag between the arrival and the final decision.

For immigrants whose residency decisions were made in 1996, the median time from the registration of their application to the time they were entered into the population register was 21 weeks. The handling time of the police before their application is made can be added. We have no data on the length of this time. Data on the time difference between immigration and the moment of registration for Nordic immigrants is not available but this is shorter as Nordic citizens can settle in Sweden without a residence permit.

There are also persons who are illegally resident in Sweden without a valid residence permit and without the knowledge of the authority responsible for population registration.

Over coverage

Deficiencies in the reporting of deaths and emigrations results in overcoverage. The reporting of deaths gives rise to many small errors due to the speed of the reporting routines. Over coverage in the statistical register due to the misreporting of deaths is assumed to be less than 0.1 per cent of deaths.

Emigration also causes over coverage because it is not always reported. Studies indicate that the population registration and therefore the TPR contain a considerable number of persons who no longer live in the country. This is probably the most serious quality deficiency in the population registration and the TPR. The majority of those who move out of the country have no interest in reporting their move and many do not do so. In many cases it can even be advantageous to remain registered in Sweden. When checks were carried out in connection with the Population and Housing Census in 1985, it was estimated that over coverage was roughly 0.1 per cent of the entire population. Calculated for the sub-population of foreign citizens, over coverage was 1.0 per cent for Nordic citizens and 2.8 per cent for other citizens together.

In later years, several attempts have been made to estimate over coverage, such as by comparing the death risk for persons with Swedish or foreign background and by analysing nonresponse and postal returns for various surveys. In a study from 1994 (Nilsson, Brister i folkbokföringen, PM, 1994) the hypothesis is put forward that over coverage among foreign-born persons can be as large as 10 per cent. Other analyses indicate that the extent of such "imaginary registrations" can lie between 25 000 – 50 000 persons, constituting 0.25 – 0.5 per cent of the entire population.

An indirect estimation of over coverage has been attempted in a study published in 2002 (Qvist, Täckningsproblem i Registret över totalbefolkningen RTB. SCB, R&D Report 1999:1). The study analyses the mortality rate of immigrants during the period 1993-97 with an intensity regression. The analysis shows that there is a relative under-mortality among foreignborn persons compared to Swedish-born persons. This under-mortality can be interpreted as relative over coverage of immigrants in the TPR. Calculations show that over coverage among non-Nordic immigrants lies within the interval of 25 000 - 50 000 persons, equivalent to 4-8 % of non-Nordic immigrants.

To deal with non-reported emigrations, cooperation is necessary between the relevant authorities. Within population registration, cooperation is now being prioritised with the National Migration Board with the aim of following up persons who have not applied for a renewal of their residence permit. The National Tax Board has also allocated resources for the followup of postal returns of voting cards, tax declaration forms and other mailings.

5 Data content

Most widely used data

The TPR data that are in greatest demand and most widely used are:

- personal identity number
- name
- address
- population registration circumstances (county, municipality and parish, plus property designation)
- civil status
- citizenship
- country of birth
- relationships between adults and between adults and children

New data

When the new TPR system came into operation in 1998, Statistics Sweden gained access to new data. The most important of these are presented below.

Events date

Data on the date for all events are now included in the register. This gives better precision for the determination of the size and composition of the population at a specific point in time. Precision when periodising data on changes is also improved. In addition, the duration for a particular state can also be calculated, such as length of residence, time spent abroad, length of marriage, time between birth of children, etc.

Cancellations or corrections

In the notifications from the population registration, it is now possible to see whether a change is a cancellation or a correction of previously notified information, such as a move. Incorrect data can now be corrected without the risk that this appears as a real event in the statistics.

Relationships between individuals

There is now improved information on the relationships between individuals since 1998, such as information on relationships between partners (married, registered partners), between children and parents (biological, adoptive parents), between children and their guardians, and between children and other individuals than parents or guardians (such as foster parents).

These relationships provide the possibility to produce family registers and certain family statistics. New derived variables such as family identities, family types and family composition have also been created. The family register should be used with caution as this contains quality deficiencies. No relationship is shown between cohabitees without common children. They cannot therefore be input into the same family but are included in their own separate family in the register. Cohabitees with common children-parent.

Relationship data have also made it possible to study biological relationships which is of great interest for medical research: on the basis of the relationship children-parent (biological or adoptive parent), a multi-generation register has been created. The register contains children born from 1932 onwards. In cooperation with Karolinska Institute, the content of the Multi-Generation Register is being supplemented and extended.

Reasons for immigration

Every year, new data on immigration delivered from the Swedish Migration Board are input in the TPR system. The data refer primarily to grounds for settlement (reasons for immigration).

Historical data

Today's TPR system contains current data integrated with certain historical information. The system contains both current and historical data stored at individual level, which is a prerequisite for being able to meet the increasing demand for data for longitudinal studies.

6 Comprehensiveness of data

The majority of data stored in the TPR registers is largely complete. The gaps that exist relate primarily to data concerning families. Unmarried co-habiting persons cannot be linked to each other unless they have common children. Because population registration by apartment has not yet been put into practice, it is, in the majority of cases, not possible to link persons to households and thereby to derive cohabitees.

7 Accuracy of data

The experiences gained and the control surveys carried out over the years have shown that the accuracy of the data is good for the majority of information. Problems occur above all in relation to data on persons born outside the Nordic countries where insufficient reporting of emigration results in a considerable over coverage.

8 Measurement

A large amount of reporting to the population registration system is carried out by professional staff (midwives, wedding officials, courts, doctors), for whom reporting is a part of their working duties. This is why it can be safely assumed that data are reported with low measurement error.

Measurement errors are more widespread regarding emigrations, in which reporting is carried out by the person emigrating. This applies to both errors in the reporting that we are aware of and those we are not aware of.

9 Controls

When data are being prepared, registered and processed in the population registration system, both manual and automatic controls are carried out that can lead to corrections and revisions.

When data are notified to Statistics Sweden, they are controlled at different stages by processing before they are approved for input in the TPR's final statistical register. Errors detected are reported to the population registration authority for investigation and possible correction. The number of errors detected is relatively low and is not considered to have any greater significance on the statistical quality.

When mass mailings take place, such as tax declaration forms or voting cards, the population registration authority sometimes controls the address details of the post that did not reach the addressee. The intention is to examine whether emigrations are reported in time or reported at all, as well as to control whether the actual place of residence corresponds with the registered place of residence. In connection with the mailing of forms for the Population and Housing Censuses in 1975, 1980 and 1985, similar controls were also carried out. Control surveys show that deficiencies mainly occur in relation to the reporting of emigrations. A more detailed account of the results of these controls can be found in the publication, Population share, part 1-2 31 December 1998 (National Board of Health and Welfare).

10 Timeliness of data

Daily notifications

When the new TPR system was launched in 1998, the timeliness of the data improved considerably. Notifications are currently received daily from the population registration via network, which means that the TPR production database can be updated at the same rate. Before 1968, notifications were delivered by mail on magnetic tape once a week.

Reduction in delay

The table below shows the percentage share of events of a certain type that are notified with a delay of a maximum of 10 and 30 days from the time the event took place.

Notification type	10 days	30 days
Births	90 %	98 %
Deaths	93 %	100 %
Immigrations	75 %	95 %
Emigrations	66 %	91 %
Migrations within Sweden	84 %	96 %

Production time and punctuality

The production of the various statistical registers at the end of the month takes 2-3 days. At the end of January, it takes roughly one week before all the registers are available for use as this is when the majority of registers are produced.

11 Comparability over time

Data in the TPR are delivered from the Swedish population registration system and are therefore dependent on the definitions and regulations used there. Since 1968, when the TPR system was created, the content of the population registration has remained largely unchanged. This is also the case in the TPR system, which has changed very little since its introduction. The differences that do exist in variable composition and variable content can be found in the documentation for the long-term archiving of the TPR registers.

Some of the more significant changes are as follows:

- During 1973, the notifications to Statistics Sweden of newborns have changed. Previously, the child's ordinal position in the family was only given for children born in an existing marriage entered into in 1950 or later. The ordinal position referred to all of the spouses' common children, both children born alive and stillborn births. From the middle of 1973, the notifications on births included instead the number of children that the mother has given birth to, both living and dead, regardless of civil status. This has been calculated by Statistics Sweden to correspond to the newborn child's ordinal number.
- Legislation on divorce changed on 1 January 1974. In brief, this meant changes such as the replacement of the judicial separation year by a period of consideration of six months. If the spouses do not have any

children under 16 years of age and both are in agreement that divorce is necessary, no consideration period is necessary. The dramatic increase in the number of divorces during 1974 and 1975 should be seen against this background.

- The legislation on citizenship changed on 1 July 1979. The change concerned children whose father has foreign citizenship and mother Swedish citizenship. Before 1 July 1979, these children would have become foreign citizens at birth but now they become Swedish citizens. The decision that children of Swedish mothers always become Swedish citizens has led to a larger number of children acquiring dual citizenship at birth. Within the Swedish population registration system however, only the Swedish citizenship is registered.
- On 1 July 1991, the local tax office took over responsibility for population registration at local level from the parish offices. At the same time as this reorganisation, the old regulatory framework was replaced by new legislation. The regulations however remained largely the same as previously.
- Another change was that persons aged over 17 who are studying at post-upper secondary level should be registered where they are living. All students were previously registered at the parental home. This change in the legislation meant that municipalities with universities and institutes of higher education showed a higher registered immigration during a period after 1991 than was actually true.
- Data on registered partnerships were included in civil status from the end of 1998.

12 Ease-of-use and comparability

TPR data constitutes basic information for many registers and statistical products at Statistics Sweden, specifically within the field of individual statistics. The TPR often governs the choice of object, variables, population and reference times.

The TPR also meets the majority of requirements for the statistics that are recommended and requested by Swedish and international organisations. The content of the registers is, to a great extent, adapted to international standards. Data that are requested for but that are not available are data on persons who are living in Sweden but who are not registered here (period of residence is less than one year), also called "short term migration". The same is the case for persons who are registered in Sweden but who intend on living abroad for a period of less than one year.

The comprehensive collaboration of TPR data means that a large amount of the individual statistics is "harmonised" and therefore largely comparable.

13 Accessibility of data

Personal data in the TPR system are stored as microdata in different registers and are accessible primarily via the final statistical registers. Data are covered by confidentiality regulations according to Chapter 9 §4 of the Secrecy Act (statistical confidentiality) and should be handled according o the provisions in the Personal Data Act. Personal data that can be attributed to a specific individual are only available for processing and statistical use within Statistics Sweden. Anonymised personal data can be released to users outside Statistics Sweden if it can be established after examination by Statistics Sweden that there is no risk for the disclosure of personal data.

The older stock registers of the TPR system, 1968-1997, and the annual versions of the events registers are long-term archived in the National Archives.

14 Presentation and documentation

The TPR system and the final statistical registers are documented in the internal Statistics Sweden documentation systems SCBDOK and METADOK. Documentation, which contains lists of variables and their value sets, are primarily accessible via Statistics Sweden's website (<u>www.scb.se</u>).

- 2004:1 Örestat II, Utvidgad och integrerad flyttningsstatistik, Förstudie
- 2004:2 Frågebank över bakgrundsfrågor i postenkätundersökningar
- 2004:3 Samordning av BHU-H och HEK Samordning 2003
- 2004:4 Könsuppdelad statistik Återrapportering av ett uppdrag i regleringsbrevet
- 2004:5 Flergenerationsregistret 2003 En beskrivning av innehåll och kvalitet
- 2004:6 Den nya HUT:en, Hushållens utgifter
- 2004:7 Multi-Generation Register 2003 A description of contents and quality
- 2005:1 Flergenerationsregistret 2004 En beskrivning av innehåll och kvalitet
- 2005:2 Multi-Generation Register 2004 A Description of contents and quality
- 2005:3 Datafångst av personakter för komplettering av Flergenerationsregistrer
- 2005:4 Historiska befolkningsregistret (HBR)
- 2005:5 Migrations- och integrationsstatistik vid SCB nuläge och utveckling
- 2006:1 Publikationsprojektet slutrapport
- 2006:2 Översyn av forskarutbildningsstatistiken

ISSN 1650-4917 ISBN 91-618-1333-8 ISBN 978-91-618-1333-9

Publikationstjänsten: E-post: publ@scb.se, tfn 019-17 68 00, fax 019-17 64 44. Postadress: 701 89 Örebro. Information och bibliotek: E-post: information@scb.se, tfn 08-506 948 01, fax 08-506 948 99, Försäljning över disk, besöksadress: Biblioteket, Karlavägen 100, Stockholm.

Publication Services:

E-mail: publ@scb.se, phone +46 19 17 68 00, fax +46 19 17 64 44, Address: SE-701 89 Örebro. Information and Library: E-mail: information@scb.se, phone +46 8 506 948 01, fax +46 506 948 99. Over-the-counter sales on our premises: Statistics Sweden, Library, Karlavägen 100, Stockholm, Sweden.

www.scb.se