R-00-25

Statistics available for Site Studies in Registers and Surveys at Statistics Sweden

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March 2000

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ISSN 1402-3091
SKB Rapport R-00-25

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Summary

Statistics Sweden (SCB) has produced this report on behalf of the Swedish Nuclear Fuel and Waste Management Company (SKB), as part of the data to be used by SKB in conducting studies of potential sites. The report goes over the statistics obtainable from SCB in the form of registers and surveys. The purpose is to identify the variables that are available, and to specify their degree of geographical detail and the time series that are available.

Together with a few other countries, Sweden has a well-developed system of registers, which means that annual and geographically comprehensive statistics exist with limitless potential for combinations and geographical flexibility. In order to safeguard individual integrity, SCB is subject to the law on confidentiality of statistics, which means that information on individuals may never be revealed when data leave SCB.

Chapter two describes the statistical registers available at SCB, registers that share the common feature that they provide total coverage, i.e. they contain all “objects” of a given type, such as population, economic activities (e.g. from statements of employees’ earnings provided to the tax authorities), vehicles, enterprises or real estate. SCB has exclusive responsibility for seven of the nine registers included in the chapter, while two registers are ordered by public authorities with statistical responsibilities.

Chapter three describes statistical surveys that are conducted by SCB, with the exception of the National Forest Inventory, which is carried out by the Swedish University of Agricultural Sciences in Umeå. In terms of geographical breakdown, the degree of detail in the surveys varies, but all provide some possibility of reporting data at lower than the national level. The level involved may be county, municipality, yield district, coastal district or category of enterprises, e.g. aquaculture. Six of the nine surveys included in the chapter have been ordered by public authorities with statistical responsibilities, while SCB has exclusive responsibility for the others.

Chapter four presents an overview of the statistics on land use maintained by SCB. This chapter does not follow the same pattern as chapters two and three but instead gives a more general account.

The conclusion can be drawn that there are good prospects that SKB can make use of SCB’s data as background information or in other ways when undertaking future site studies. SCB can contribute competence to help SKB choose the right variables from the various registers and find the right method (if required) for making use of variables that come from surveys.

Sammanfattning av resultaten

SCB har gjort denna rapport på uppdrag av SKB, som en del av SKB:s underlag för platsundersökningar. Rapporten är en genomgång av vilken statistik som finns hos SCB i register och undersökningar. Syftet är att kartlägga vilka variabler som finns, vilken geografisk detaljeringsgrad de har och vilka tidsserier som finns tillgängliga.

Sverige har tillsammans med ett fåtal andra länder ett väl utbyggt registersystem, vilket gör att det finns årlig och geografiskt heltäckande statistik med oändliga möjligheter till kombinationer och geografisk flexibilitet. För att säkerställa individernas integritet lyder SCB under statistiksekretess, vilket innebär att uppgifter om enskilda aldrig får röjas när data lämnar SCB.

I kapitel två redovisas statistikregister som finns på SCB, register som har det gemensamt att de är totalräknade och alltså innehåller alla ”objekt” av ett visst slag som t ex befolkning, aktiviteter (t ex från kontrolluppgifter), fordon, företag eller fastigheter. Sju av de nio register som ingår i kapitlet ansvarar SCB för helt och hållet, två register har statistikansvariga myndigheter som beställare.

I kapitel tre redovisas statistiska undersökningar som genomförs av SCB, med undantag för riksskogstaxeringen som genomförs av SLU i Umeå. Undersökningarna har varierande detaljeringsgrad när det gäller den geografiska redovisningen, men samtliga ger någon möjlighet att redovisa på lägre nivå än riket. Det kan gälla län, kommun, skördeområden, kustdistrikt eller grupper av företag inom t ex vattenbruk. Sex av de nio undersökningar som ingår i kapitlet har statistikansvariga myndigheter som beställare, övriga ansvarar SCB för helt och hållet.

I kapitel fyra ges en överblick av vad SCB har för markanvändningsstatistik, detta kapitel följer inte ”mallen” från kapitel två och tre utan ger en mer generell genomgång.

De slutsatser som kan dras är att det finns goda möjligheter för SKB att kunna utnyttja SCB:s data som omvärldsinformation eller på annat sätt vid kommande platsundersökningar. SCB kan bidra med kompetens när det gäller att välja ut rätt variabler från de olika registren och kompetens för att hitta rätt metod (om sådan behövs) för att utnyttja variabler som kommer från undersökningar.

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1 Introduction

SKB is planning to continue the siting program for deep repository of spent nuclear fuel in year 2001 with survey of, at least, two potential sites. These sites will be selected from six communities: Nyköping, Östhammar, Oskarshamn, Tierp, Hultsfred or Älvkarleby. Previous work has been to identify suitable areas in various communities in Sweden based on available data from various disciplines, mainly geology and transport possibilities. By analysing site characteristics it will be possible to point out the most suitable sites for siting program. The sites will survey for data relevant to evaluate the construction and function of a planned deep repository.

There are several fields of investigation preparing for the siting program. For example, have the geological investigations established a list of variables /Andersson et al, 1998/. Variables that might be of interest to investigate from an ecosystem point of view are presented in Lindborg and Kautsky /2000/. The final goal before the siting program is to establish a list of variables that should be investigated during field-surveys and a program on how these variables should be measured.

This report describes some of the variables that may be of interest to the surface ecosystems included in the siting program. The registers and surveys covered in the report have been chosen by SKB and SCB in collaboration. The purpose is to show which variables are available for site studies and to describe the spatial scope and resolution, the temporal resolution and the methods/models used in existing data.

The statistical system in Sweden changed in 1994 when a partial decentralisation of official statistics was carried out. In addition to SCB there are 25 other public authorities responsible for official statistics, for example the Swedish Board of Agriculture (Jordbruksverket) and the Swedish Institute for Transport and Communications Analysis (SIKA). This report covers both the statistics that SCB is commissioned by the government to produce and those it produces on behalf of the different public authorities. One exception is the section on the National Forest Inventory (chapter 3.2), where SCB does not produce the statistics but does have information about them, as they are part of the Official Statistics of Sweden.

A distinction is made in the report between variables available in statistical registers and variables available in statistical surveys. There is an important difference between these two sources of information, in that the statistical registers cover the whole population and provide data for any geographical division required. Most of the statistical registers give up-to-date information, and all are continuously updated, though in some cases the latest data currently available are from 1997.

The statistical surveys on the other hand are conducted for various purposes; often SCB conducts them at the request of the public authority responsible for the statistics involved. This means that the spatial scope of the surveys varies, though every survey described in this report has some geographical dimension.

2 Register Statistics

2.1 The Total Population Register

The source of vital statistics in Sweden is the Total Population Register (RTB), maintained by Statistics Sweden. The RTB is based on the notifications of births, deaths, migrations, etc., supplied daily by the Tax Authorities.

2.1.1 Existing data

A large number of variables can be obtained from the RTB; the main ones are:

Variables in English	Variables in Swedish
Personal Identity Number	Personnummer
Place of residence	Folkbokföring (län, kommun, församling, fastighet)
Name	Namn
Address	Adress
Sex	Kön
Age	Ålder
Marital status	Civilstånd
Citizenship	Medborgarskap
Place of birth	Födelseplats
Family links	Familjekopplingar
Immigration	Invandring – tidpunkt och land
Emigration	Utvandring – tidpunkt och land
Dates for all events	Datum för alla händelser

In addition to the variables in the register, many demographic measures can be calculated. Examples of such measures are mean population, average life expectancy, death risk and many more.

Spatial scope and resolution

The smallest geographical unit in the RTB is the residential building. This means that it is possible to link every individual entered in the population register to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific individuals.

Temporal resolution

In 1967, Statistics Sweden compiled a Total Population Register in connection with the change to a computerised national registration at the county administrative boards. The population register from 1968 is the oldest register compatible with the current register. Swedish population statistics are published monthly, quarterly, semi-annually and annually. Preliminary population figures for the entire year are published between Christmas and New Year. The “official population figures” refer to 31 December each

year. The data for 31 December 1999 are available in March 2000 for all the various geographical divisions.

The central government commissions Statistics Sweden to make population projections for the nation; the most recent was made in 1998 /SCB, 1998 www/ and covers the years 1998–2050. Population projections for municipalities can also be made on demand.

Methods/models used for existing data

The quality of the population register is good. Births and deaths cause very small under- and overcoverage problems. Immigration causes some undercoverage due to the time lag between entry in Sweden and population registration. This undercoverage refers to immigrants with a non-Nordic citizenship. Emigration can result in overcoverage since the population register is not always informed about departures.

The RTB is described in more detail in /Johannesson, 1993/.

2.2 The Swedish Farm Register

The Swedish Board of Agriculture is the public authority responsible for official statistics based on the farm register. Statistics Sweden has been commissioned to produce these statistics.

The Swedish Farm Register (LBR) contains records on agricultural and forestry enterprises in Sweden and was established in 1968. The original objectives of the LBR were to achieve a continuous record of all holdings and their production resources, and to provide a basis for statistics. The LBR is also used as a sampling frame for various surveys.

2.2.1 Existing data

The data collection varies from one year to the next, both in respect to the enterprises that report data and to the type of data reported. Each year, data collection covers holdings with more than two hectares of arable land and holdings with large animal stocks. Horticultural enterprises are included in the data collection in most years, while forestry enterprises have not been included since 1992. The register data for 1996–1998 are partly based on sample surveys.

The permanent variables in the LBR since 1968 are:

Variables in English	Variables in Swedish
Name/ Address/ Telephone number	Namn/ Adress/ Telefonnummer
Personal Identification Number of the holder	Företagarens personnummer
Buildings included in the enterprise	Fastigheter som ingår i jordbruksföretaget
Areas of arable land	Åkerarealer
Areas of forest land	Skogsarealer
Owner of leased property/ Tenant of leased land	Ägare/arrendator
Acreage under various crops	Grödarealer
Number of livestock of different species	Husdjur (nötkreatur, svin, får och höns)

In addition to the variables listed above, different variables are included in the LBR for different years, depending on the various censuses that supplement the LBR.

The major sections of the LBR describe in detail the number of livestock and the use of arable land. It is possible to obtain information on the various types of crops and on cattle, pigs, sheep and fowl. Crops and livestock are described in the LBR documentation, appendix A.

Spatial scope and resolution

The LBR has the building as its smallest geographical unit. This means that it is possible to link every enterprise entered into the LBR to a specific geographical point. This coordinate-point is located at the "centre of the holding", which is the main building of the holding. You can choose to view a municipality as a whole, or look at the enterprises on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; there should be at least three enterprises in the area to ensure that no specific enterprises are identified. If there are demands for areas with only one or two enterprises, SCB takes the purpose of the demand into consideration and decide if it is possible to meet the demand.

Temporal resolution

The information in the LBR has been collected annually since 1968 and refers to conditions on a certain day in June. Definitive statistics are published 7–9 months subsequent to that specific day. Preliminary statistics for acreage with various crops and livestock are available after about 3 months.

The surveys have been mainly made with the same definitions and the same methodology since their inception, even if the number of enterprises included each year has varied. These statistics are therefore easy to compare over time.

Methods/models used for existing data

The LBR was established in 1968, and since 1970 it has included horticultural enterprises. Until 1995, all enterprises supplied statistical information. In the period 1996–1998, the information was gathered in two ways; a majority of the enterprises received a simplified form, which requested only information for maintaining the register. The remaining enterprises received a special statistical form, which contained questions on the use of arable land and number of livestock in addition to the basic questions. In 1999, all the enterprises supplied statistical information.

The forestry enterprises, enterprises with a maximum two hectares of arable land, have been included in the 1968 register and the years of the so-called agriculture censuses, 1971, 1976, 1981, 1988 and 1992.

Censuses of horticulture were carried out in 1972, 1977, 1982, 1988 and 1994. A smaller version of the census was carried out in 1985, 1991 and 1997.

The method used in the LBR is described in more detail in Statistical Report no. J 34 SM 9901.

2.3 The Forest Data Register

The Forest Data Register (Skogsdataregistret) is processed from the Register of Real Estate Assessments (FTR) described below. It contains all real estate assessed as units for agriculture and forestry. For more details, see the description of the FTR.

2.4 The Register of Real Estate Assessment

The central government has commissioned Statistics Sweden to produce statistics on real estate assessment. There is the General and Special Assessments of Real Estate, which form the Register of Real Estate Assessments (FTR). The primary data are obtained from the National Tax Board. The FTR is used for statistical purposes, such as a description of the stock of real estate and buildings, sample frames for statistical surveys and for different types of statistical processing for customers.

2.4.1 Existing data

The latest general joint real estate assessment (AFT) for all types of real estate was made in 1981. Since 1988, an AFT is made every two years in accordance with a system with a six-year interval for each type of real estate, described below:

Year	Type of real estate (English)	Type of real estate (Swedish)
1994, 2000, etc.	Units for multidwelling and commercial buildings	Hyreshusenheter
	Industrial units including excavation units and electrical generating units	Industrienheter inkl täkt-enheter och elproduktions-enheter
	Special units	Specialenheter
1990, 1996 etc.	Units for one- or two-dwelling buildings	Småhusenheter
1992, 1998 etc.	Units for agriculture and forestry	Lantbruksenheter

A special assessment of real estate (SFT) is made annually for real estate not included in the AFT. At the SFT, the assessment of the previous year is settled, if a new assessment is not necessary for some reason. New assessments are made when, for example, new real estate has been formed or when the real estate gains a new building or a modernisation has taken place that changes the value of the real estate.

The FTR contains hundreds of variables describing taxable real estate. The most important variables available since 1970 are listed below:

Variables in English	Variables in Swedish	Type of unit
Owner-category	Ägarkategori	All
Land acreage	Markareal	All
Taxation values for land and buildings	Taxeringsvärden för mark och byggnader	All
Area	Yta	O, I
Age	Ålder	O, M, I
Standard	Standard	O
Type of building	Typ av byggnad	O, I
Acreage and value	Areal och värde	A
Value factors for forests, acreage, etc.	Värdefaktorer för skog, åker etc.	A
Living area	Bostadsyta	M
Business area	Lokalyta	M

O = Units for one- and two dwelling buildings
A = Units for agriculture and forestry
I = Industry units
M = Units for multidwelling and commercial buildings

Spatial scope and resolution

The FTR has the building as its smallest geographical unit. This means that it is possible to link every building entered into the FTR to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific buildings.

Temporal resolution

Statistics Sweden has published the assessment of real estate annually since 1970.

Every general assessment follows with changes in the taxation rules, and to a smaller extent also changes in the classification of assessed units. Despite these changes, the possibility of making comparisons over time is good.

The results from the assessment of 1 January 1999 were published in December 1999.

Methods/models used for existing data

The objects of the FTR are the assessed units (taxeringsenheter). An assessed unit can be described as the total real estate in the possession of one owner, situated geographically within a municipality and with the same type of real estate. The most common assessed unit is a site with a building.

The information on number of assessed units and their assessed values is of good quality. In regards to the classification of the assessed units by type-code, there is a problem in defining one- and two dwelling units by permanent or seasonal use. This problem is most common in areas surrounding larger cities with a mix of permanent and seasonal dwellings.

The method used in the FTR is described in more detail in the Statistical Report no. Bo 37 SM 9901.

2.5 The Swedish Vehicle Register

The Swedish Institute for Transport and Communications Analysis, SIKA, is the public authority responsible for statistics concerning transports and communications. Statistics Sweden has been commissioned to produce the vehicle statistics.

The official statistics regarding registered vehicles are based on the Swedish vehicle register maintained by the Swedish National Road Administration. The vehicle statistics are used by government, financial institutions, trade organisations and other institutions for planning and environmental purposes, for example.

2.5.1 Existing data

The population consists of all vehicles registered in the Swedish National Road Administrations Swedish Vehicle Register (Centrala Bilregistret, CBR). This register contains all Swedish vehicles that must be registered according to Swedish law. Thus, Swedish vehicles that do not require registration are not covered by the statistics, for example, military vehicles owned by the Swedish state and vehicles used only on private property.

The main variables available since 1973 are:

Variables in English	Variables in Swedish
Vehicle:	Fordonsslag:
passenger cars	personbilar
motorcycles*)	motorcyklar*)
cross-country scooters	terrängskotrar
busses	bussar
lorries	lastbilar
tractors	traktorer
trailers including caravans	släpvagnar inkl. husvagnar
In use/not in use	I trafik/avställda
New registrations	nyregistreringar

*) Including EU-mopeds.

In addition to the variables listed above, it is also possible to obtain information on model, make, year of first registration, fuel, etc. for all vehicles

Spatial scope and resolution

The CBR reference for a year, for example 1998-12-31, is linked to the Total Population Register, which has a building as its smallest geographical unit. This means that it is possible to link every vehicle entered into the CBR to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific buildings.

Temporal resolution

Data is available on the Swedish vehicle stock beginning 1973. Since then, the register has been updated annually, and the latest version of the register refers to conditions as of 20 January 1999. However, the register usually refers to 31 December of each year. A new version of the register for all types of geographical divisions will be available in March.

Methods/models used for existing data

Since 1973, the official statistics for registered vehicles have been based on the CBR. The CBR is updated on a daily basis, as vehicle owners report changes to the Swedish National Road Administration. The vehicle register maintained by Statistics Sweden for statistical purposes is based on the contents of the CBR at the end of each quarter (for cars and motorcycles only), and at the end of the year (for all vehicles).

Additional information is added to the statistical register from the Swedish business register maintained by Statistics Sweden.

For more information on the vehicle statistics, see the Statistical Report no. T 20 SM 9904.

2.6 Labour Statistics Based on Administrative Sources

The register labour statistics based on administrative sources (RAMS) is maintained by Statistics Sweden. RAMS is primarily built on data from a number of registers originally organised at central authorities for administrative purposes. The main condition for linking data from different registers is that the attached registers contain standard identities for combining objects (persons, enterprises and work places).

The register system enables labour conditions to be observed from both the supply and the demand sides. This makes possible the quantification of individuals and their movements on the labour market, as well as the composition of employed and labour mobility at any single enterprise or work place. Thus, there are many opportunities to quantify the functioning of the labour market from different aspects.

2.6.1 Existing data

A large number of variables can be obtained from the RAMS' registers. The Employment register is the most commonly used among these registers. The Employment register focuses on conditions in November each year. Another important register in RAMS is the Occupational register, which describes all jobs including self-employment. The complete set of variables from the Employment register is listed below.

Variables transferred directly from other registers:

Variables in English	Variables in Swedish
Personal Identity Number	Personnummer
Age as of 31 December	Uppnådd ålder den 31/12
Sex	Kön
The county-/municipality-/parish code	Bostadens läns-/kommun-/församlingskod
Building number	Bostadens fastighetsnummer
Country of citizenship	Medborgarskapsland
Country/county of birth	Födelseland/län
Latest migration-year	Senaste invandringsår
Annual wage from employment	Årslön från anställning
Income from self-employment	Inkomst av aktiv näringsverksamhet
Certain benefits from the social insurance office	Vissa ersättningar från försäkringskassa
SUN-code for highest education level	SUN-kod för högsta utbildning
Completion-year/term for highest education	Avslutningsår/termin för högsta utbildning
Municipality of completion for highest education	Utbildningsort för högsta utbildning
SUN-code of most recent education	SUN-kod för senaste utbildning
Completion-year/term for latest education	Avslutningsår/termin för senaste utbildning
Municipality of completion for latest education	Utbildningsort för senaste utbildning

Derived variables:

Variables in English	Variables in Swedish
Employment status	Sysselsättningsstatus
Occupational status	Yrkesställning
The institutional sector-code of the enterprise	Företagets institutionella sektorkod
Sector-code (from Statistics Sweden)	Sektorindelningskod (Statistics Sweden's own)
Industrial classification of the work place	Arbetsställets näringsgrenskod
Situation (county/ municipality) of work place	Arbetsställets belägenhet, läns-/kommunkod
ID-number of the enterprise	Företagets organisationsnummer
ID-number of the work place	Arbetsställenummer enl. RAMS

There are two main concepts in labour statistics worth mentioning, namely “night-time population” and “day-time population”. The nighttime population is linked to the location of the dwelling and the daytime population is linked to the location of the work place. It is also possible to study commuting between where people live and where they work.

Spatial scope and resolution

The *nighttime population* in RAMS has the building as its smallest geographical unit. This means that it is possible to link every individual entered into RAMS to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific individuals.

The *daytime population* are linked to their work places by data originally collected from the Business Register. This causes a quality-problem since all work places do not have addresses in the register, and thus the possibility of linking the daytime population to a

building is limited. The lowest, geographical level with good quality is the municipality level.

Temporal resolution

RAMS has been produced annually since 1985. Prior to 1985, information on employment was collected only every fifth year during the censuses. The RAMS statistics are published 15 months after year-end. The month of November is the reference period for the register; the latest available data refer to 1997.

There have been no major changes in definitions and/or method in RAMS since the start in 1985, which, with some exceptions, gives good comparability over the years. Exceptions are the new method to define the employed and the new Standard Industrial Classification system (SNI 92) introduced in 1993. Comparability over time is also complicated by improvements in the calculation of crucial RAMS-variables.

Methods/models used for existing data

There are a number of basic registers that provide input to the Employment register at RAMS[1]: the main register is the Register of Income Verifications (Kontrolluppgifts-registret, KU-registret), which contains information about every job held by an employee during a year.

The classification employed/unemployed is made according to data from the KU-register, the Seaman tax register, the Income Register and the Labour Force Survey (AKU) which refer to October and November. The employed are linked to a work place by information from the Business Register (CFAR).

The classification employed/unemployed is made from model assumptions as well as from statistics on full-time and part-time employment. For a more detailed description, see /SCB, 1987/.

The largest measurement problem in RAMS relates to the geographical location of work places and the determination of an individual's branch of business. Correspondence between the employment variable of RAMS and the employment status of AKU is also a problem. The employment rate in RAMS is about 5 per cent below the rates in AKU. These variables have been subjected to extensive examination.

More information on methods concerning RAMS is published by Statistics Sweden in the reports /SCB, 1991/ and /SCB, 1994/.

[1] These are the Total Population Register (Registret över totalbefolkningen, RTB), the Register of Income Verifications (Kontrolluppgiftsregistret, KU-registret), Sjömansskatteregistret(Seaman Tax Register), Inkomst- och förmögenhetsregistret (Income and Wealth Register) the Business Register (Centrala företags- och arbetsställeregistret, CFAR), the Swedish Register of Education (Utbildningsregistret), Registret Personer under utbildning (Student register), Inkomststatistikens sammanfattningsregister över pensioner, bidrag m m (Summary register over pensions, subsidies, etc.).

2.7 The Income Register

The incomes, taxes and entitlements of the population are based on the Swedish Income Register (IoF) maintained by Statistics Sweden. The IoF is built on data from a number of registers originally organised at central authorities for administrative purposes. The primary data regarding assessments and earnings statements are obtained from the National Tax Board. The main purpose is to describe the distribution of economic welfare for individuals and families.

2.7.1 Existing data

Statistics for the whole population come from the tax department and other authorities, such as the National Social Insurance Board. In the first example, statistics on taxable income are based only on data from the National Tax Board, which includes all persons living in Sweden including children. In addition, Statistics Sweden receives other registers that cover different types of taxable income, as well as different data from employers concerning wages and taxable entitlements such as pensions and sick allowances from the National Social Insurance Board. There are also data from banking and financial organisations concerning capital income, such as interests and dividends.

In the IoF, all taxable entitlements are connected with individuals and families in addition to cash entitlements such as child allowance, social assistance, housing allowance, student assistance, educational grants etc.

The main variables of the IoF available since 1968 are:

Variables in English	Variables in Swedish
Personal ID-number	Personnummer
Personal ID-number of co-assessed	Sambeskattads personnummer
Marital status	Civilstånd
Nationality	Nationalitet
Number of children	Antal barn
Variables from the income tax return forms	Variabler från deklarationsblanketterna
Tax-free transfers	Skattefria transfereringar
Taxes and fees	Skatter och avgifter

The main income concepts are earned and capital income (summa förvärvs- och kapitalinkomst), total income from employment and business (sammanräknad förvärvsinkomst), income from employment (arbetsinkomst) and disposable income (disponibel inkomst).

Spatial scope and resolution

The IoF has the building as its smallest geographical unit. This means that it is possible to link every individual entered into the education register to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific individuals.

Temporal resolution

The IoF was established in 1968. The statistics are produced annually about 1.5 years after the income-year. Disposable income has been calculated since 1976, and both individuals and taxation units have been used as income units since 1982/83.

A large number of changes have been made over the years that affects the possibilities for comparison over time. The tax system has changed twice and the latest tax reform of 1990/91 has led to a substantial increase of comparison problems. The former main income concept, total income (sammanräknad inkomst), has been replaced by earned and capital income (summa förvärvs- och kapitalinkomst). Beginning in 1991, the possibilities of making comparisons over time are good.

Methods/models used for existing data

Many registers contribute to the IoF[2]; the most important are the Assessment register (Taxeringsregistret) and Statements of earnings (Kontrolluppgiftsregister) which are obtained from the National Tax Board. All the registers that serve as the bases for income and wealth statistics are controlled and corrected by Statistics Sweden to ensure better quality.

Precision in the calculations is very high; the accuracy of the number of families is not as high due to the missing links between two persons cohabiting and without joint children. This results in too many families in the IoF compared to the true number.

The statistics are based on information from the income tax return, statements of earnings, etc. This implies that income and assets withheld from the tax authorities are excluded. The extent of this hidden sector of the economy is relatively unknown, but it could be maintained that it is substantial.

For more detailed information on the IoF, see the Statistical Report no. If 20 SM 9901.

2.8 The Business Register

The Business Register (CFAR) is based on information collected for administrative purposes. The main source is the National Taxation Authority from which Statistics Sweden regularly obtains updated information. The Business Register is the source for enterprises or other interested parties that want to buy addresses to enterprises in a specific region, defined perhaps by activity code and number of employees.

[2] Taxeringsregistret (Riksskatteverket), KU-registren över bankräntor, värdepapper m m (Riksskatteverket), Sjukförsäkringsregistret (Riksförsäkringsverket), Barnbidragsregistret (Riksförsäkringsverket), Underhållsbidragsregistret (Riksförsäkringsverket), Pensionsregistret (Riksförsäkringsverket), Registret över frivillig pension (Riksförsäkrings-verket), Värnpliktsregistret (Pliktverket), Förmånstagarregistret (Statens personalpensionsverk), Pensionsutbetalningsregistret (Kommunernas pensionsanstalt), Studiestödsregistret (Centrala studiestödsnämnden), Bostadsbidragsregistret (Riksförsäkringsverket) och Familjebidrag för värnpliktiga (Riksförsäkringsverket).

2.8.1 Existing data

The Business Register includes all legal units or individuals who carry out a business activity. Each enterprise has at least one work place, i.e. an address where the activity is carried out.

The main variables are:

Variables in English	Variables in Swedish
Name of the enterprise	Företagets namn
Postal address	Adress
Telephone number	Telefonnummer
Employees by size class	Storleksklass
Activity code	Näringsgren
Geographic code	Län-kommun kod
Legal form	Juridisk form
Identification code	ID-nummer, unikt

The enterprises have an *activity code* in accordance with the Swedish Standard Industrial Classification (SNI 92). The SNI 92 has 17 main groups with five hierarchical levels of classification. The first four levels are identical with NACE, the statistical classification of economic activities in the European Union.

Number of employees is given by size class. There are 17 specified main size classes. This provides information about the enterprise/local unit size.

Geographic code indicates the location of each enterprise/work place, and is found on two levels, County and Municipality. The Swedish postal code also indicates geographic code and is defined at a more detailed level than the Municipality level.

Sole proprietorships in the Business Register have an *identification code* which is the same as their Personal Identification Number. Organisations have a special registration number with 10 digits. Each active enterprise unit is by definition assigned at least one work place. Work places are given CFAR identification numbers that remain unchanged with change of ownership. The CFAR identification number has 8 digits and does not carry information.

Spatial scope and resolution

The enterprises/local units can be linked to a geographic location by their entire address or by their postal code alone. Both methods result in errors, as the quality of the visiting address in the Business Register is inferior to the quality of the postal address. The visiting addresses to enterprises/local units do not always refer to a street, but to a postal box or to a well-known building or shopping centre.

One way of situating the local units “on the map” used by the Regional services (Regional uppdragsverksamhet, MR/RU) at Statistics Sweden is by geo-coding in two steps. The first step is a mechanical match between the addresses in the Business Register and an extensive address database maintained by Regional services. About 80 per cent of the addresses obtain a coordinate in this way and can be presented on a map. The remaining 20 per cent are matched in a manual routine. The geographical precision with this method is a grid-frame of 200 x 200 meters, in which the address to a work place is situated.

Temporal resolution

The Business Register is mainly used as an updated database with current information on addresses to enterprises and work places. However, the register has also been saved in annual versions since 1973. The possibility of comparing data over time is limited by the continuous changes in taxation rules for enterprises, especially the V.A.T. limits for when enterprises need to be registered.

Methods/models used for existing data

The Business Register is based on information collected for administrative purposes. The main source is the National Taxation Authority from which Statistics Sweden obtains current information twice a month. The basic information for the National Taxation Authority comes from The National Patent and Registration Office (PRV), dealing with the registration of limited companies, partnerships, limited partnerships, economic associations, sole proprietorships and the branch offices of foreign enterprises. Statistics Sweden itself is responsible for the registration of government authorities and also conducts surveys to obtain current information.

For more information on the Business Register, see the catalogue “Statistics Sweden:s Företagsregister”.

2.9 The Swedish Register of Education

The educational levels of the population are based on the Swedish Register of Education maintained by Statistics Sweden. The educational level of the population has become an increasingly important factor, since today’s technological and internationalised society makes greater demand on people's knowledge. Educational background is also one of the strongest components in the concept “social background“. Since the level of education shows considerable variations between different regions, both governmental and local authorities are interested in these data, and use them actively in their planning.

2.9.1 Existing data

The register comprises the population ages 16–74 years that are registered as residents in Sweden on 1 January each year. In 1996, this referred to about 6 million inhabitants. In addition to the National Identification Number, which is necessary as a key link in building and updating the register, the register contains an essential core of demographic and education data.

The main variables available since 1985 are:

Variables in English	Variables in Swedish
Age	Ålder
Sex	Kön
Municipality of residence	Bostadskommun
Country of birth	Födelseland
Citizenship	Medborgarskap
Highest education completed	Högsta avslutade utbildning
Completion year	Examensår
Municipality of completion	Utbildningsort

This does not include ongoing vocational training, nor labour market training arranged by the national labour market board.

When coding completed education, the Swedish standard classification of education (SUN) is used. SUN is a system used for the classification of specific programmes and as a tool for the aggregation of education for statistical purposes.

Spatial scope and resolution

The Swedish Register of Education has the building as its smallest geographical unit. This means that it is possible to link every individual entered into the education register to a specific geographical point. You can choose to view a municipality as a whole, or look at the population on a grid-frame or other area designed for your needs. Secrecy requirements must be observed; statistics cannot be obtained where it is possible to identify specific individuals.

Temporal resolution

The Swedish Register of Education was established in 1985 at the request of the Government. Earlier registers of the educational levels of the population were produced in the 1930 and 1970 censuses. In addition, data on education had been collected in different surveys, e.g. the Labour Force Survey and the Survey of Living Conditions.

The first version of the Register of Education refers to 31 December 1985. Since then, the register has been updated annually, and the latest version of the register refers to conditions on 1 January 1999. A new version of the register is usually available in April, i.e. about four months after the reference time (1 January).

Methods/models used for existing data

For demographic variables, data from the current Total Population Register (RTB) are used. Data on completed education are collected from a number of statistical registers, so-called source registers, maintained by Statistics Sweden. The most important are the register of graduates from higher education and the registers of school leavers from compulsory and from upper secondary school. These registers are continuously updated with data reported by all primary and secondary schools, universities, etc.

Data from the 1970 and 1990 censuses also constitute an important part of the information in the register. The censuses in the intervening years did not include any questions about education.

In 1995, a special survey “Education completed abroad“ was carried out, including all persons aged 20–59 born in other countries than Sweden, where data on completed education was missing. The purpose of the study was to improve the statistics on education completed abroad. Data from the study were first included in the register on 1 January 1995.

Education data collected in other surveys at Statistics Sweden are also used for updating the Register.

2.10 Conclusions for Register Statistics as a whole

The Register Statistics have in common that they cover the total population, the total amount of real estate or the total number of enterprises. This provides high spatial resolution and enables the study of any particular geographical areas. The registers are continuously updated annually, mostly with annual data, and there are retrospective data available for a large number of years.

2.11 Costs

The costs for different types of register statistics depend on a number of factors:

- the spatial resolution; the county/municipality level is the least expensive and tailor-made small geographical areas are the most expensive;
- the temporal resolution; the data for the last few years are the least expensive, but to go further back in time requires more work and is therefore more expensive;
- number of registers involved;
- combinations of variables from different registers at the individual level.

Statistics Sweden will provide a cost estimate on the register statistics if you are interested, and we will be happy to discuss the contents of such an offer!

3 Survey Statistics

3.1 Crop yield statistics

The Swedish Board of Agriculture is the public authority responsible for the official crop yield statistics. Statistics Sweden has been commissioned to produce these statistics.

Objective crop yield surveys

Objective crop yield surveys were introduced in the beginning of the 1960s. The method is called “objective” because returned figures are based on measurements and the weighing of samples, which are taken using statistical sampling methods. They were dimensioned to supply crop yield data for the Government Crop Insurance System. In this way, the crop yield surveys covered other needs of yield statistics.

The methods for the crop yield surveys have changed in recent years and since 1998, interview methods are applied to cover grain crops, oleiferous plants and peas. To determine the actual potato yield the objective method was kept for 1998, but a postal inquiry survey was used in 1999. For sugar beets, the yields are calculated based on figures from Danisco Sugar AB.

Actual yields

Yield per hectare and total yields are estimated annually for counties, production areas and the whole country. The following crops are included: winter wheat, spring wheat, rye, triticale, winter barley, spring barley, oats, mixed grain, peas, winter rape, spring rape, winter turnip rape, spring turnip rape, oil flax, food potatoes, potatoes for processing and sugar beets. All crops are not cultivated throughout the country and estimation and publication is possible only for areas where the crops are more commonly grown. For lower regional level, yield survey districts, only standard yields are presented.

Standard yields

Standard yields are calculated annually for grain crops, potatoes, oleiferous plants and sugar beets. The standard yield is an estimate of the expected yield if the weather and other conditions that influence the crops are normal.

3.1.1 Existing data on standard yields

The standard yields are calculated for the following crops:

Variables in English	Variables in Swedish
winter wheat	höstvete
spring wheat	vårvete
rye	råg
barley	korn
oats	havre
potatoes	potatis
cuttings for hay and silage	slåttervall (till och med 1997)
oleiferous plants	oljeväxter
sugar beets	sockerbetor

Spatial scope and resolution

Sweden is divided in 106 yield survey districts (SKO) since 1989; these consist of parishes (or parts of parishes) with similar conditions for crop cultivation. Earlier, in the period 1961–1988, there were 420 SKOs. The main principle for the division has been to form regions that are as homogenous as possible concerning yields. The climate, soil, topography and type of cultivation have also been considered.

The yield survey districts that cover the six municipalities of your interest are listed below. Please note that in addition to the listed parishes, there are many more parishes in each yield survey district.

Municipality	Yield survey district	Parishes
Älvkarleby	SKO 2121	Älvkarleby, Skutskär
Tierp	SKO 2121	Västland, western part
	SKO 0311	Tierp (northern part), Vendel, Söderfors
	SKO 0312	Tegelsmora, Tolfta, Västland (eastern part), Österlövsta (western part)
	SKO 0322	Hållnäs, Österlövsta (eastern part)
	SKO 1922	Tierp, southern part
Östhammar	SKO 0312	Alunda, Dannemora, Ekeby, Film, Hökhuvud, Morkarla, Skäfthammar
	SKO 0322	Börstil, Forsmark, Gräsö, Harg, Valö, Öregrund, Östhammar
Nyköping	SKO 0411	Stigtomta, Vrena
	SKO 0421	Bergshammar, Kila (northern part), Lid, Ludgo-Spelvik, Lunda (northern part), Lästringe, S:t Nikolai, All Helgona, Runtuna, Råby-Ripsa (southern part), Svärta, Tuna (northern part), Tunaberg, Tystberga-Bälinge

(to be contd. on next page)

Municipality	Yield survey district	Parishes
	SKO 0431	Råby-Ripsa, northern part
	SKO 0521	Kila (southern part), Lunda (southern part), Tuna (southern part)
Hultsfred	SKO 0813	Målilla with Gårdveda, Mörlunda, Tveta
	SKO 0814	Hultsfred, Lönneberga, Vena
	SKO 0831	Järeda, Virserum
Oskarshamn	SKO 0813	Döderhult, western part
	SKO 0814	Döderhult, eastern part Kristdala, Misterhult, Oskarshamn

The statistics are presented only for the standard yield districts mentioned above.

Temporal resolution

Standard yields have been calculated by Statistics Sweden annually since 1961. The standard yields for 1999 were published in June 1999.

Methods/models used for existing data

Since 1998, a revised model for estimating the standard yields has been implemented. The mean of the objective yield data for the last 15 years, enhanced with an estimated annual increase, forms the standard yield of a region. The model is valid for all crops and all regions; yield survey districts, counties, production areas and the whole of Sweden.

The yield result depends on a large number of factors. Some of these are relatively constant, for example soil fertility and topography. Others change gradually, for example supply of nutrition, use of biocides, seed for sowing and cultivation methods. A third group, which can be described as weather-conditioned differences for crops in different years, varies strongly and at irregular intervals. These weather-conditioned differences can be described as how the cultivation is influenced by temperature, light, precipitation, wind and plant diseases.

The estimated standard yields are somewhat uncertain, caused both by model faults and random faults. The model faults cannot be quantified, but the average random faults are about +/- 5 per cent to +/- 10 per cent for standard yields at the yield survey district level (when sufficient basic data is available).

For more details on the method, see the report /Otterskog, 1998/.

3.1.2 Conclusions

The standard yields are only available for the standard yield districts, but since these districts are formed in regards to similar conditions for crop cultivation, they may still be useful. The method for calculating standard yields, using the mean of the objective yield data over the last 15 years enhanced with an estimated annual increase, implies that it is necessary to order only the most recent data (1999).

3.2 The Swedish National Forest Inventory

The Swedish National Forest Inventory (NFI) is carried out by the Department of Forest Resource Management and Geomatics, Swedish University of Agricultural Science (SLU) in Umeå. The inventory is made annually in the form of a sample survey of the whole of Sweden. It covers all land use categories with in-depth studies of forestland. The aim of the National Forest Inventory is primarily to describe the conditions, growth and cutting of the forests in Sweden.

3.2.1 Existing data

The main variables available are:

Variables in English	Variables in Swedish
Related to area:	***Ytvisa:***
County/part of county	län/länsdel
Ownership category	ägarkategori
Land use classes[3]	ägoslag
Maturity class	huggningsklass
Age class	åldersklass
Site index	ståndortsindex/bonitet
Related to trees:	***Trädvisa:***
Tree species	trädslag
Alive/dead	levande/dött
Diameter at breast height	brösthöjdsdiameter
Height	höjd
Five years growth of diameter	fem års diametertillväxt
Stump diameter	stubbdiameter
Defoliation and other damage	kronutglesning och övriga skador
Type of plant	typ av planta

The inventory includes about 18 000 sample plots, 12 000 of which are inventoried in the field during the time of year when the ground is bare. All types of land are included in the survey. However, the most detailed information concerns forestland.

Tree and shrub layer

All trees higher than breast height (1.3 m above ground) are callipered (diameter measured). The age of the sample trees is counted from annual rings on a bore core obtained from the stem at breast height. The bore cores are sent to a laboratory for further measurements.

Ground vegetation

The type of ground vegetation is roughly assessed according to 16-field layer and 6 ground layer categories that form the basis of the site index classification. In addition, a detailed assessment of soils and vegetation is carried out by the National Survey of Forest Soils and Vegetation. A total of 267 species and groups of species are assessed. The coverage is recorded for 71 of these.

[3] Some of the land use categories in the inventory are: forest land, pasture, cultivated field, bogs, mountain, high mountain forest, subalpine forest, built-up land and protected areas.

Humus layer and mineral soil

Soil sampling, up to a depth of one metre, is performed by the National Survey of Forest Soils and Vegetation. A number of attributes are assessed from the sample, for instance the type of soil, mineral texture, type of humus, and degree of humification and thickness of the humus layer. Samples are obtained from different soil horizons, which are subsequently analysed with respect to their pH value, nitrogen and carbon levels, degree of base saturation, heavy metal content, etc.

Site conditions

The soil moisture and surface water flow of the plot are assessed, as well as its inclination and typographic position. A site index is determined to estimate the site quality class. In addition, the effects of forestry and other human activities are assessed.

Position in landscape

The position of the plot is determined, partly with regard to administrative boundaries, partly with regard to its location in relation to elements in the landscape, such as roads, fields and lakes. In addition, north and east coordinates together with altitude are recorded. Since 1996, the positions of all plots are located using GPS.

Examples

Data collected in the field can be processed in many ways. Generally, interesting results are produced by combining different attributes from the database. There are good examples on different analysis on the website of SLU /SLU 2000, www/.

Spatial scope and resolution

The Swedish NFI is based on random sampling. A sample of the trees, the ground vegetation, etc. are randomly selected and used for estimating the total volume of all trees, the total area of land covered with a certain vegetation, and so on.

The inventory is implemented within defined circular plots. The plots are clustered into “tracts”. These are quadratic or rectangular in shape and vary in size in different parts of the country.

The tracts are systematically distributed over the whole of Sweden. The distance between them is shorter in southern than in northern Sweden. The Swedish NFI uses two types of tracts. One is temporary and the other permanent. The temporary tract is only surveyed once, whereas a permanent tract is re-surveyed regularly.

The density between the tracts/plots is adjusted by using information from a five-year period to provide good precision for estimates at a county level.

Extensive estimations for smaller regions, such as municipalities and water catchment areas, require modified methods of field sampling (denser sampling net) and/or use of remote sensing techniques.

Temporal resolution

The NFI has been in progress since 1923, and since 1953, the whole country is assessed annually. The results since 1983 to the present are the easiest to handle and present. However, many results can be shown and compared as far back as 1923.

The results are usually presented as mean values of a five-year period. The annual felling is also presented for separate years.

Methods/models used for existing data

The NFI is designed to give data with satisfactory certainty for separate counties or larger parts of counties with material from a five-year period. The total area of the sample plots are about 380 hectares each year, which means that not more than 0.02 per cent of forest land is included in the inventory. Over one-half of the total number of the sample plots is on forestland.

Several routines are used to check the reliability of the collected data. The correctness of some data is checked in the field with hand-held computers. A sample of the plots are visited for a second time by control crews. Further checks are made at the department before the data is finally stored in a database.

Because the Swedish NFI is carried out as random sampling, the precision of the estimated figures can be estimated. Further information on the method is provided in the SLU-report /Svensson, 1983/ and the report /Chuang-Zong and Ranneby, 1992/.

3.2.2 Conclusions

The NFI is carried out by the Swedish University of Agricultural Science in Umeå. Statistics Sweden advises you to contact SLU if you are interested in data from the NFI. The contact person at SLU is Anders Lundström, tel. +46 90 786 58 28 or e-mail anders.lundstrom@resgeom.slu.se.

3.3 Sea fisheries

The National Board of Fisheries is the responsible body for the official Swedish fishery statistics. Statistics Sweden has been commissioned to produce all fishery statistics.

The statistical survey population consist of the fish landings of Swedish fishermen, where the fish have been sold to an authorised fish purchaser. Sampling techniques are not used in the collection of data for the official fishery statistics. All commercial landings of fish as well as the sales of non-commercial fisheries to an authorised purchaser of fish are covered by the sales note system.

3.3.1 Existing data

The sea fishery is described by the following main variables, available since January 1970:

Variables in English	Variables in Swedish
species of fish	fiskslag
quantity of fish (=landed weight)	landad vikt
sales value	försäljningsvärde
coastal district	kuststräcka
month	månad

Spatial scope and resolution

The sea fishery statistics are presented for three coastal districts: the west coast (N and O counties), the south coast (K and LM counties) and the east coast. The landings are tied to a coastal district by the postal address for the commercial purchaser of fish.

Temporal resolution

The sea fishery statistics have been compiled by Statistics Sweden on a monthly basis since January 1970. The statistics are published about 30 days after the months end.

Methods/models used for existing data

Sales notes

Fish auctions and other bodies must on the first sale of fish, crustaceans or molluscs from fishermen submit a copy of the sales note to the National Board of Fisheries. The sales note includes information on the fishermen and the fishing vessel, date of landing and port, weight and value of each species. The figures from the sales notes are registered by the National Board of Fisheries (about 80 000 sales notes annually) and provide the basic data for the official Swedish catch statistics.

The calculation of average prices is based on the information in the sales notes.

Logbooks

A logbook in EU format shall be kept on board and updated to the latest fishing trip for all fishing vessels exceeding 10 meters length. The same type of logbook is also used for vessels between 5 and 10 meters but it is not mandatory to keep it on board. The fishermen are obligated to submit the log sheets to the National Board of Fisheries.

The log sheets contain the geographical information for each fishing trip (i.e. trawl haul or net settings) in latitude and longitude. The sales notes that are the basis for the official Swedish fishery statistics are compiled with the log sheets at the National Board of Fisheries in order to harmonise figures from the logbooks and the sales notes at an aggregate level for each month. The method splits the data for certain species in the sales note according to logbook information of fishing area.

3.3.2 Conclusions

The official statistics on sea fisheries contain landings only for coastal districts. It is possible to improve spatial resolution by using the postal address of the commercial purchasers of fish.

3.4 Fishing in Inland Waters

The statistics on fishing in inland waters by commercial fishermen are based on information collected and processed by the National Board of Fisheries since 1995. In contrast to the sea fisheries, where the reports are based on information from first-hand collectors, the reports on fishing in inland waters are based on information from the commercial fishermen themselves. The reason is to obtain information on the part of the catches not being sold to purchasers.

Before a decision was made to publish statistics on fishing in inland waters by commercial fishermen in 1987, Statistics Sweden estimated that the collected information provides an acceptable image of all Swedish fishing in inland waters by commercial fishermen, and thus can be presented as official statistics.

3.4.1 Existing data

Fishing in inland waters is described by the following variables, available since 1987:

Variables in English	Variables in Swedish
species of fish	fiskslag
quantity of catch	fångstmängd
value	värde i första handelsledet
lake	sjö
Fisherman's home county	hemlän
type of gear	redskapstyp
quantity of gear	redskapsmängd

Spatial scope and resolution

Information is gathered from fishermen from the four major lakes Vänern, Vättern, Mälaren and Hjälmaren and from the other inland waters with commercial fishing. The inland waters referred to are found in the counties of Södermanland, Östergötland, Jönköping, Kronoberg, Skåne, Halland, Västra Götaland, Värmland, Örebro and Norrbotten. It is possible to present the statistics by the fishermen's home county.

Temporal resolution

Information is collected monthly from fishermen from the four major lakes Vänern, Vättern, Mälaren and Hjälmaren. Information is collected annually from the other inland waters with commercial fishing. The statistics are published about four months after the accounting year.

Methods/models used for existing data

The survey has not been subjected to any essential changes in definitions or methods since 1987. Beginning in 1995, the information has been collected from the individual fishermen by the National Board of Fisheries. Before 1995, the corresponding information was gathered by the fishing committees/ fishing units in each county.

The statistical survey population consists of the commercial catches of Swedish fishermen in inland waters. Sampling techniques are not used in the data collection for these statistics. Commercial fishermen are defined here as those with a commercial fishing licence and those who, for other reasons, should report fishery statistics from the major lakes.

The statistics are based on a catch log in which the fisherman provides information about catch, yield and use of gear. In the cases where the catch has been specified in gutted weight, the figures are converted into live weight for the tables.

When information on sales price is missing in the log, estimation is made with the average price per species, month and lake based on the other existing logs that specify sales prices.

3.4.2 Conclusions

Statistics on fishing in inland waters treat only one of the counties of interest to you (Södermanland). Fishing in inland waters for non-commercial purposes is not covered by the statistics, but Statistics Sweden will conduct a survey this year covering non-commercial fishing as a whole.

3.5 Aquaculture

Aquaculture includes cultivation of all types of animals and plants in water. The natural ecosystems are influenced by different cultivation activities; sometimes artificial systems are created with a high production of fish, crustaceans, molluscs (mussels and oysters, etc.) or algae.

3.5.1 Existing data

Aquaculture is described by the following variables, available since 1983:

Variables in English	Variables in Swedish
species	odlad art
purpose of production	produktionsinriktning
production	produktion i kilo för konsumtion
value of sales	försäljningsvärde
establishments	anläggningstyp

Spatial scope and resolution

Aquaculture statistics are presented for three coastal districts: the northeast coast (counties 21–25), the southeast coast (counties 01–09) and the southwest coast (counties 10–14). The statistics are also presented for counties where there are four cultures or more. Data for the other counties are presented as a whole, and do not reveal information on individual cultivators. The counties of interest to you contained the following number of aquaculture units in 1998:

- Kalmar 30
- Uppsala 3
- Södermanland 1

This means that there are statistics available on aquaculture for Kalmar county only, the other two counties have less than four cultures.

Temporal resolution

Aquaculture statistics have been compiled by Statistics Sweden annually since 1983. The statistics are published about 6 months after the end of the year.

Methods/models used for existing data

This survey has not been subjected to any essential changes in definitions or methods since 1984.

The statistical survey population consist of all cultivations with a licence from the National Board of Fisheries or the county administrative board to work with aquaculture. Sampling techniques are not used in the data collection for these statistics.

The survey forms in the latest survey (January 1998) was sent to some 1 000 aquacultures. The contents of the form were almost identical with the 1984 form. The survey follow up shows that all the cultures of importance for the survey results had answered the form. There is one presumed underestimation in the results from 1998; namely, the data on crayfish.

3.5.2 Conclusions

The highest spatial resolution for statistics on aquaculture is at the county level, and of the three counties of interest to you, only Kalmar county meets the secrecy demands. Statistics Sweden may divide the data for Kalmar at a lower geographical level, as long as there are four or more cultures in the area.

3.6 Prices of real estates

Statistics Sweden has been commissioned by the central government to produce statistics on prices of real estate. The purpose of the price statistics is to provide general information on the prices and price developments for one- and two-dwelling buildings, multidwelling and commercial buildings, industrial real estate, unbuilt sites and

agricultural real estate. Statistics Sweden calculates a Real Estate Price Index (FASTPI) for one- and two-dwelling buildings and for agricultural real estate; it also calculates the purchase-price coefficient (K/B).

3.6.1 Existing data

The variables concerning real estate are:

Variables in English	Variables in Swedish
County code/ Municipality code/	Länskod/kommunkod/riksområdeskod
Acquisition date	Förvärvsdatum
Acquisition code	Fångeskod, anger hur en fastighet har förvärvats
Total purchase price	Total köpeskilling för köpet
Total assessed value	Totalt taxeringsvärde för köpet
Total area	Total areal som ingår i köpet
Square metre price	Kvadratmeterpris. Är en beräknad variabel av total köpeskilling dividerat med total yta i köpet
Purchase-price coefficient	Köpeskillingskoefficient (K/T). Total köpeskilling dividerat med totalt taxeringsvärde
Code for seller / Code for buyer	Kod för säljaren / Kod för köparen
Transfer form	Överlåtelseform, lagfart eller tomträtt
Code of type	Kod som anger vilken typ av fastighet som förvärvats
Type of building	Typ av förvärvad bebyggelse
Appraised building area	Värdegrundande byggnadsyta
New construction year adjust with regard to conversion and extension year	Värdeår

The variables concerning unbuilt sites are:

Variables in English	Variables in Swedish
Code for detailed plan	Kod för detaljplan
Intended site use	Avsedd tomtanvändning
Zoned rental building, housing/business area	Byggrätt hyreshus, bostadsyta/lokalyta
Type of building	Typ av bebyggelse
Assessed value	Ett av Lantmäteriverket beräknat taxeringsvärde
Estimated purchase-price coefficient	Uppskattad köpeskillingskoefficient, total köpeskilling dividerat med det beräknade taxeringsvärdet

The variables for agricultural real estate are:

Variables in English	Variables in Swedish
Total assessed value for the value units (forest land) included in the purchase	Summa taxeringsvärde för de värderingsenheter av typ skogsmark som ingår i köpet
Total assessed value for the value units (arable land) included in the purchase	Summa taxeringsvärde för de värderingsenheter av typ åkermark som ingår i köpet
Total assessed value for the value units (pasture land) included in the purchase	Summa taxeringsvärde för de värderingsenheter av typ betesmark som ingår i köpet
Total assessed value for the value units (farm buildings) included in the purchase	Summa taxeringsvärde för de värderingsenheter av typ ekonomibyggnad som ingår i köpet
Total area of forest land	Total areal skogsmark som ingår i köpet
Total area of arable land	Total areal åkermark som ingår i köpet
Product area code	Produktionsområdeskod

Spatial scope and resolution

The price statistics are presented for the following geographical levels:

Statistics on registrations of titles	Lagfartsstatistik	County
Price statistics for one- or two-dwelling buildings, multi-dwelling buildings and industries	Prisstatistik för småhus, hyreshus och industrier	County and municipality (only one- and two dwelling units)
Price statistics for unbuilt sites and agricultural real estate	Prisstatistik för obebyggd tomtmark och för lantbruksenheter	County
FASTPI for permanent one- or two-dwelling buildings	FASTPI för permanenta småhus	8 national areas 3 metropolitan areas
FASTPI for buildings for seasonal use	FASTPI för fritidshus	8 special design areas
FASTPI for agricultural real estate	FASTPI för lantbruksenheter	8 regions (a combination of rural codes and production areas)

Temporal resolution

The statistics on prices of real estate have been compiled by Statistics Sweden on a quarterly and annual basis as follows:

Prices for..	Priser för..	Available since
one- and two-dwelling buildings, and multi-dwelling and commercial buildings	..småhus och hyreshus	1957
industrial real estate	..industrifastigheter	1981
unbuilt site area	..obebyggd tomtmark[4]	1976
agricultural real estate	..lantbruksfastigheter	1945

The quarterly statistics are published 2.5 months after the end of the quarter. The annual statistics are published 6 months after the end of the year.

Methods/models used for existing data

Price statistics are based on the total amount of purchases during the quarter and for the entire year.

Information on applications for registration of title is provided by the enrolment authority and registered by the Land Survey (LM). The LM also completes the data with information from the tax authorities and sends them to Statistics Sweden daily via Internet.

Supplementary data on unbuilt sites are collected from the local land survey units. The LM completes the forms with estimated assessed values.

[4] A larger change was made in 1981, which among other things involve a new measure of pricedevelopment (Uppskattad köpeskillingkoefficient).

For more details on the models used for calculation of the index, see Statistical Report no. P 16 SM 8605 with information on FASTPI for one- and two-dwelling buildings and the report /SCB, 1996/.

3.6.2 Conclusions

Price statistics for one- or two-dwelling buildings are available at the municipality level; the county level is used for other types of buildings/real estates. The spatial resolution is determined by the number of purchases for the different types of real estate. This is why it is possible to obtain information on one- and two-dwelling buildings (with many purchases during a year) at the municipality level, but rarely for parts of a municipality.

3.7 Swedish domestic road goods transport

This survey provides estimates of the goods transport performance by lorries and trailers. The latest survey for 1998 has been conducted according to EU-directives[5] and has been adapted in major parts to a new EU-regulation[6] in force in January 1999. Together with the results from the latest survey, Statistics Sweden has published a compilation of data from Statens Järnvägar (SJ) concerning freight traffic on the railway network and from Tullverket concerning the amount of goods on lorries to and from Sweden. This section only deals with the survey made by Statistics Sweden.

3.7.1 Existing data

The survey provides estimates of the goods transport performance by lorries and trailers including semi-trailers as a group, and separately for transports by lorries including trailers and semi trailers operated by lease or commission, licensed lorries, and transports by lorries operated by the owner.

The transport performance in hauled tons, ton-kilometres, capacity ton-kilometres and vehicle kilometres are analysed by loading capacity, commodity hauled, length of haul and by region of loading and unloading. The industrial branch classification was excluded beginning with the 1993 survey.

[5] EU-directives 78/546/EEC – On statistical returns in respect of carriage of goods by road, and amending directive 89/462/EEC.
[6] EU-regulation (EG) no. 1172/98.

The main variables are:

Variables in English	Variables in Swedish
Trips:	***Körningar:***
goods hauled	godsmängd, pålastad varukvantitet under körningen (*)
kilometres driven with and without load	trafikarbete, körda kilometer med och utan last (*)
ton-kilometres	transportarbete, tonkm (härledd variabel)
total time used	totalt utnyttjad tid (*)
commodities by NST/R	varuslag enligt NST/R-nomenklatur[7] (*)
county of loading and unloading	pålastningslän resp. avlastningslän (*)
dangerous goods according to ADR-S	farligt-gods-klasser enligt ADR/ADR-S[8] (*)
Transport vehicle:	***Lastbil:***
leased and on own account	yrkesmässig resp. Firmabilstrafik (CBR)
maximum load capacity	lastbilens tillåtna maximilastvikt, beräknad som totalvikt minus tjänstevikt (CBR)
body code	karosserikod som anger typ av bil (CBR)
county of registration	lastbilsägarens hemmalän (CBR)
type of transport selling company/forwarding agency	typ av transportsäljande/ förmedlande företag (*)

(*) specifies the source for the information in the survey.
(CBR) specifies that the source for the information is the Swedish vehicle register.

Spatial scope and resolution

The results from this survey are presented at the county level, and it is not possible to obtain estimates for municipalities or smaller geographical units.

Temporal resolution

For the period 1995–1998, survey estimates are available for each quarter and for the whole year. The first survey was made in 1972, and from 1972 to 1987, surveys were made quarterly to obtain quarterly and annual estimates of the road goods transport performance. Thereafter, surveys were made every third year, 1990 and 1993. Projections for the missing years have been made using the driving distance register for diesel lorries with the surveys for 1987 and 1990 as bases. The projection contains only total figures for the years divided into a few groupings. Surveys and projections were not made for 1994.

Since 1972, the surveys have been made mainly with the same definitions and methodology, even if the sample sizes have varied somewhat over the years. Thus, these statistics are quite comparable over time.

The results from the 1998 survey were published in August 1999.

[7] NST/R stands for " Nomenclature uniforme des merchandies pour les Statististiques de Transport, revised version (R)" and it is the standard goods classification for transport statistics in EU. See also Appendix B.
[8] ADR/ADR-S stands for Agreement concerning the international carriage of dangerous goods by road. ADR-S is the Swedish version. See also Appendix B.

Methods/models used for existing data

The results from 1998 were based on data from sample surveys. A separate sample of about 2 000 lorries in operation was selected for each quarter in 1998 from a population of about 55 000 lorries with a loading capacity of 3.5 tons or more. The survey period is limited to one calendar week for each selected lorry. In order to cover seasonal variation in the transport market, a separate part of the sample is studied for each survey week of the quarter.

The lower limit of the survey population was adjusted in the 1993 survey to meet demands relating to the EEA-agreement that Sweden had signed. Prior to that survey year, the lower limit for lorries was a minimum loading capacity of 2 tons. The extent of change of the lower limit from 2 to 3.5 tons loading capacity represents a small proportion. The areas covers 0.5 per cent of ton-kilometres, 0.7 per cent of carried tons, and 5 per cent of kilometres driven.

Stratified sampling has been used. For the 1998 survey, the strata were constructed by county, for lease or commission/on own account and loading capacity intervals. In the second stage, calendar weeks are sampled evenly throughout the quarter.

The method used in this survey is described in more detail in Statistical Report no. T 30 SM 9903. The design and contents of earlier surveys have been described in the Statistical Report no. T 1972:32, which is available in an English version.

3.7.2 Conclusions

The results from this survey are presented at the county level, and it is not possible to obtain estimates for municipalities or smaller geographical units.

3.8 The Regional Accounts

The regional accounts provide information on the economy of the Swedish regions. The regional accounts are based on the same principles used in the national accounts. The calculation principles are based on international agreements with the UN and EU.

3.8.1 Existing data

The Regional Gross Domestic Product (BRP) is an important indicator; and it is the regional correspondence to the Gross Domestic Product (BNP) measured from the producer-side, i.e. the value of the production of goods and services in a nation/region. The sum of the BRP of all regions is the BNP. In the EU, it is common to use the measure “BRP per capita” in forming and monitoring the united regional politics.

The main variables of the regional accounts are:

Variables in English	Variables in Swedish	Available
County/Municipality	län/kommun	1985-1996
Sector aggregate	Branschaggregat:	
Land based businesses	areella näringar (01–05)	
Manufacture, energy, construction	tillverkning, energi, bygg (10–45)	
Service sector	tjänstenäringar (50–93)	
Non-sector assigned	ej branschfördelat	
Central government	stat	
Municipality	kommun	
Other producers	övriga producenter	

Spatial scope and resolution

The BRP is presented for counties and municipalities.

Temporal resolution

The BRP has been calculated for the period 1985–1996. A revised calculation for the period 1993–1996 is underway, based on new international standards[9]. This revised model will be used in the future; calculations based on old files (1985–1992) according to the revised model are currently not of interest for the coming years.

Methods/models used for existing data

BRP calculations are made from the final annual accounts of the GDP. Statistics Sweden uses a "bottom-up" method, but for some service branches, wage totals are used instead. The methods are described in the Eurostat manuals, the manual for calculations on value added is /Eurostat, 1992/.

3.8.2 Conclusions

The BRP is presented for municipalities as the lowest, geographical level. A revised calculation for the period 1993–1996 is underway; data for earlier years are presently not compatible.

3.9 Local Government Finance

In the Summary of Accounts (RS), Statistics Sweden collects data annually from the final accounts of the municipalities.

The purpose of the survey is to provide reliable information on the economy, present situation and development of the municipalities. The municipal sector carries great weight in the Swedish economy. The RS is used to calculate the municipality consumption share of Gross Domestic Product (BNP) and to calculate investments, transfer payments, etc.

[9] SNA93 and ENS95.

3.9.1 Existing data

A large amount of economic data in the RS is taken from municipal annual accounts. The chart of accounts[10] is used as basis for defining activities and income and expenditure categories. The population consists of all municipalities in Sweden.

The important parts of the RS are:

Important parts	Main contents
Working accounts *(Driftredovisning)*	Reports on the municipalities' current costs and revenues during the year. This is the most detailed section, where municipalities' activities (ca. 70 units) are divided into 7 categories of major costs and revenues.
Investment accounts *(Investeringsredovisning)*	Investments for the year, as well as acquisitions and sales of real estate.
Working accounts – contract works, grants and certain revenues. *(Driftredovisning, specificering av entreprenader, bidrag och vissa intäkter)*	New – illustrates some parts of the working accounts in more detail.
Income statement *(Resultaträkning)*	Only contains external costs and revenues.
Funds statement *(Finansieringsanalys)*	Funds provided during the year and the use of these funds.
Balance sheet *(Balansräkning)*	Accounts of assets, debts and equity.
Guarantee commitments and other contingencies *(Borgensförbindelser och övriga ansvarsförbindelser)*	Contingencies undertaken by the municipality.
External expenditure *(Externa utgifter)*	Costs/expenditure from the working accounts and the investment accounts. The largest category is personnel costs.
External revenues *(Externa inkomster)*	Revenues from the working accounts and the investment accounts. The largest category is local income tax (kommunalskatt).

The statistics are reported as total amounts in 1000 SEK.

The book "Vad kostar verksamheten i Din kommun" (What do activities cost in your municipality?) presents a large number of comparative figures. Examples of such comparative figures are the number of full-time children in child welfare, the number of pupils at school, and the number of person work years at a certain occupation.

Spatial scope and resolution

The data is presented at the municipality, county and country levels.

Temporal resolution

The RS has been conducted annually since 1960, and the results are published once a year, about 10 months after the end of the year. The contents of the statistics are relatively stable. Changes of forms were made in 1978, 1988 and 1995. Compared to

[10] Kommun-BAS 95.

earlier changes, the one in 1995 was more substantial since both the activity and category divisions were new.

Methods/models used for existing data

The RS is a complete survey. The activity classifications and categories for costs and revenues are defined in the book Kommun-Bas 98, published by Svenska Kommunförbundet.

The quality at the country level is good on an aggregate activity and category level, while the accounting at lower levels does not have the same high quality. The quality at the municipal level is inferior for certain municipalities.

3.9.2 Conclusions

The data are presented at the municipal level, but not lower. The possibilities for making different comparative figures are great, but there are problems in comparing data over time due to the changes in 1995.

3.10 Costs

Statistics Sweden will provide you an offer for the survey statistics if you are interested, and we are happy to discuss the contents of such an offer!

4 Other Statistics of Interest to SKB

4.1 Land use Statistics

Statistics Sweden has overall responsibility for land use statistics in Sweden. The statistics are produced every fifth year in principle, and the sections below provide a general view of Statistics Sweden's activities in this field. The sections are not presented in the same way as other statistics in this report (i.e. with subtitles "existing data", "temporal resolution", etc).

4.1.1 Land use at the county level

An outline of land use at the county level is presented in the publication "Markanvändningen i Sverige". Data sources for this publication are registers/databases managed by Statistics Sweden and other agencies. The most important of these registers/databases are the Swedish Farm Register, the Register of Real Estate Assessments and the Swedish National Forest Inventory (described in other chapters of this report).

In addition, several other sources have been used, e.g. results from Statistics Sweden's studies of urban settlements and green areas and inventories of coastal zones. Furthermore, use has been made of materials from, the National Board of Housing, Building and Planning, the National Environmental Protection Board, the Swedish State Railways, the National Road Administration and the Central Office of the National Land Survey.

Three issues of "Land Use in Sweden" have been published in reference to conditions in 1980, 1990 and 1995. Land use is shown for the following main groups: agricultural land, forest and other wooded land, built-up and related land, land for extraction, wetlands, mountains, bare rocks and other land. The main group 'built-up and related land' is subdivided into eight subgroups, e.g. one- or two-dwelling buildings, houses for seasonal and secondary use, industry, etc. In a paragraph on land use for special purposes, information is provided on land use in urban settlements, in protected areas and in reindeer farming areas.

4.1.2 Developments in coastal zones

These studies outline the developments close to shorelines with regard to the legislation on shore protection and the Act concerning the management of natural resources.

The legislation on shore protection in Sweden was first implemented at the beginning of the 1950s and has been subsequently amended several times. The most important change occurred in the mid-1970s when the regulations were made mandatory. The purpose of the legislation was to secure public access to the shores and to safeguard biodiversity. It includes a zone of 100–300 metres inland from the shoreline, which in principle prohibits the construction of new buildings.

Developments in a part of the Stockholm archipelago and around the shores of Lake Mälaren have been studied with special respect to the legislation rules. The study was

based on digitised data from the Real Estate Assessment Register (type of building, year of construction, etc.) and digitised shorelines together with shore zones. GIS technique was used for the retrieval of data, the analysis and the presentation of the results, which were published by Statistics Sweden in its statistical reports series. As yet, no plan has been set for further work in this field.

The Act concerning the management of natural resources was adopted in the latter half of the 1980s. According to this act, specific areas were singled out, such as along the coast, where particular attention was to be paid to the natural and cultural heritage. These areas are considered to be of special national concern. In collaboration with the National Board of Housing, Building and Planning, Statistics Sweden has carried out a study of the developments in the coastal areas and in the coastal municipalities situated in these areas. The method used consists of matching geocoded development data with digitised area boundaries by means of GIS technique. The presentation of the results /SOS, 1996/ contained a large number of maps and tables.

4.1.3 Delimiting urban settlements

Since 1960, urban settlements in Sweden are delimited every fifth year. The definition of an urban settlement, in short, requires that there be a contiguous housing development with at least 200 people where the distance between houses does not exceed 200 metres. There are about 1 900 such settlements in Sweden.

The delimitation is made using GIS technique where geocoded buildings plotted on a computer screen are used to determine if a change in the boundary line of the settlement has occurred or not. Population data are retrieved from a special population register. All boundaries of the urban settlements are digitised. In addition, settlements with a population of 50–200 people, so called rural agglomerations, are delimited by the same method every fifth year (beginning in 1990).

4.1.4 Land use in urban settlements

Land use in urban settlements and changes in land use have been studied by means of a sample survey of urban settlements covering about 25 per cent of the total urban settlement area in Sweden. The survey of land use in the sampled urban settlements was made in the early 1980s by point interpretation of aerial photographs. The distance between the points varied from 50 to 200 metres depending on the size of the settlement. The result has been subsequently updated, normally at 5-year intervals.

The study yields data on gross changes during the period and current statistics are obtained on land use in Sweden's urban settlements by recalculation of the earlier data. This study has also made use of aerial photographs, but not of point interpretation. Geocoded data from the Real Estate Assessment Register provide important supplementary information; using GIS, buildings constructed during the period in question are selected and plotted on transparencies that are studied in conjunction with the aerial photographs.

The precision of the method allows for the presentation of some 10+ main groups and 20+ land use subgroups, and by 3 groups of urban settlements, chosen according to size. The results are published by Statistics Sweden in its series of statistical reports. Special in-depth reports are occasionally prepared in regards to land use in the ten largest urban settlements in Sweden.

4.1.5 Surveys of green areas in urban settlements

Surveys of green areas in urban settlements and changes in these areas are being carried out in connection with the above-noted studies of land use in urban settlements. The supply of green areas around the larger urban settlements has been surveyed on two occasions. The latest survey was made by means of point interpretation of areas extending up to 5 kilometres from the border of the urban settlements.

The map used was the latest version of the so-called “Green Map”, with a scale of 1:50 000. About ten classes of land use can be obtained from this map. The results were geocoded and matched in a GIS with the digitised boundaries of urban settlements, shore zones, road zones and boundaries of protected areas. Statistics on different types of green areas were obtained, and an analysis of their appeal and accessibility was made. The results were published by Statistics Sweden in its series of statistical reports.

4.1.6 Supply and extraction of peat

Statistics on the supply and extraction of peat are produced annually by Statistics Sweden in co-operation with the Swedish National Board for Industrial and Technical Development. The statistics provide a concise description of the supply of peat, its uses, legal regulation, market conditions, the economy of peat harvesting and the environmental effects of its extraction and use. Data collection is mainly carried out by the Geological Survey of Sweden and the Swedish Peat Producers Association. The results are published by Statistics Sweden in its series of statistical reports.

4.1.7 Land use at the municipal level

There are different ways of making a map of land use at the municipal level, or for even smaller regions.

A database is currently under construction that contains satellite data that can be used to present municipal land information. For more information, contact Anders Lundgren at

Satellus AB
P.O. Box 806, SE-981 28 Kiruna, Sweden
Telephone +46 980 671 75, fax +46 980 671 80
E-mail anders.lundgren@satellus.se

5 Discussion

The characteristic that all *Register Statistics* have in common is that they cover the total population, the total amount of real estate or the total number of enterprises. This provides high spatial resolution and enables the study of any particular geographical areas desired. The registers are continuously updated, and retrospective data are available for a large number of years.

There are two registers that SCB produces on behalf of public authorities, namely the Farm Register and the Swedish Vehicle Register. The other registers described in this report are produced on direct commission from the Government.

The description of the *statistical registers* shows that they are based on different *administrative registers*. The original purpose of these administrative registers does not always correspond to the purpose intended when used by SCB to produce statistics. However, a great deal of methodological work is performed at SCB in producing the statistical registers and maintaining comparability over time, even when the administrative sources vary over the years.

Confidentiality requirements must be observed, and statistics can therefore not be obtained for which it is possible to identify specific individuals. In general this means that the values in a table are “tampered with” so as not to reveal distinct individuals. Table cells that show the value “1” are changed to “0” and cells where the value is “2” are changed to “3”. For the farm register the general rule is that an area must contain at least three enterprises.

The crop yield statistics presented as standard yields can be given with a geographical breakdown into so-called standard yield districts. These districts are constructed on the basis of similar conditions for crop cultivation, which may make them useful for your specific purposes. The method for calculating standard yields, which uses the mean of the objective yield data over the last 15 years multiplied by an estimated rate of annual increase, means that only the most recent data (1999) need be ordered.

The statistics on sea fisheries contain landings for coastal districts only, but allow the possibility of improving the spatial resolution by using the postal address of commercial fish purchasers. Statistics on fishing in inland waters cover only one of the counties of interest to you (Södermanland), and owing to confidentiality requirements, statistics on aquaculture also treat only one county (Kalmar). Fishing in inland waters for non-commercial purposes is not covered by the statistics, but Statistics Sweden is to conduct a survey this year covering non-commercial fishing as a whole.

Price statistics for one- or two-dwelling buildings are available at the municipal level; the county level is used for other types of buildings/real estate. The spatial resolution is determined by the number of purchases for the different types of real estate. For comparative measures, price indices are recommended.

The results from the Swedish domestic road goods transport survey are presented at the county level, and it is not possible to obtain estimates for municipalities or smaller

geographical units. The possibility of linking commodities with county of lading and unlading may still be of interest to you.

The Regional Accounts are presented for municipalities as the lowest geographical level. A revised calculation for the period 1993–1996 is underway; data for earlier years are presently not compatible.

In the Summary of Accounts (Local Government Finance) the data are presented at the municipal level, but not lower. There is great potential for producing different comparative figures, but comparing data over time is problematic due to the changes in 1995.

Statistics Sweden has overall responsibility for land use statistics in Sweden. In principle, these statistics are produced every fifth year, and the report provides a general overview of Statistics Sweden's activities in this field. For further information on land use at the municipality level we refer to Satellus AB in Kiruna.

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Appendix A

Excerpt from the LBR product description from Statistics Sweden's home page

The most important part of the study concerns the number of animals and land use acreage in reference to the following variables:

Land use acreage (the information is expressed in number of hectares)

Variable	
6 01	Höstvete till mognad
6 02	Vårvete till mognad
6 03	Råg till mognad
6 04	Höstkorn till mognad
6 05	Vårkorn till mognad (ej blandsäd)
6 06	Havre till mognad (ej blandsäd)
6 07	Rågvete till mognad
6 08	Blandsäd till mognad
6 09	Kok- och foderärter, vicker och åkerbönor till mognad
6 10	Konservärter
6 11	Bruna bönor
6 12	Grönfoderväxter
6 13	Slåttervall som utnyttjas
6 14	Betesvall (på åkermark) som utnyttjas 1998
6 15	Ej utnyttjad slåtter- och betesvall (på åkermark) 1998
6 16	Vall för fröskörd
6 17	Matpotatis
6 18	Potatis för stärkelse
6 19	Sockerbetor
6 20	Höstraps till mognad
6 21	Vårraps till mognad
6 22	Höstrybs till mognad
6 23	Vårrybs till mognad
6 24	Oljelin
6 25	Trädgårdsväxter
6 26	Andra växtslag
6 27	Energiskog
6 28	Träda
6 29	Annan obrukad (ej nedlagd) åkermark

Antal nötkreatur

Variabel	
7 02	Kor för mjölkproduktion
7 03	Kor huvudsakligen för uppfödning av kalvar
7 04	Kvigor till liv, 2 år och däröver
7 05	Kvigor till liv, mellan 1 och 2 år
7 06	Kvigor till slakt, 2 år och däröver
7 07	Kvigor till slakt, mellan 1 och 2 år
7 08	Tjurar och stutar, 2 år och däröver
7 09	Tjurar och stutar, mellan 1 och 2 år
7 10	Kalvar under 1 år, kvigkalvar
7 11	Kalvar under 1 år, tjur- och stutkalvar
7 12	Kalvar under 1 år, kalvar till slakt

Antal får

Variabel	
7 14	Tackor födda 1997 och tidigare
7 15	Baggar födda 1997 och tidigare
7 16	Lamm

Antal svin

Variabel	
7 19	Avelssvin 50 kg och däröver, galtar
7 20	Avelssvin 50 kg och däröver, suggor, första gången dräktiga
7 21	Avelssvin 50 kg och däröver, övriga betäckta suggor
7 22	Avelssvin 50 kg och däröver, ännu ej betäckta gyltor
7 23	Avelssvin 50 kg och däröver, övriga suggor
7 24	Slaktsvin 110 kg och däröver
7 25	Slaktsvin 80–109 kg
7 26	Slaktsvin 50–79 kg
7 27	Svin 20–49 kg
7 28	Smågrisar under 20 kg

Antal höns och kycklingar

Variabel	
7 31	Höns, 20 veckor eller äldre
7 32	Kycklingar, avsedda för äggproduktion
7 33	Slaktkycklingar

Appendix B

Varugrupper enligt NST/R
Commodity groups in NST/R-terms

The standard goods classification for transport statistics, abbreviated as NST, came into use following a recommendation in 1961 by the Commission of the European Communities. In 1967 the codes were modified and classification since been called NST/R. (Nomenclature uniforme des marchandises pour les statistiques de transport).
Note, that commodities shown in Italic are national groupings special for Sweden.

NST/R Varugrupp	Beskrivning	NST/R Groups of goods	Description
1	Spannmål	1	Cereals
2	Potatis, andra färska eller frysta grönsaker, färsk frukt	2	Potatoes, other vegetables, fresh or frozen, fresh fruit
3	Levande djur, sockerbetor	3	Live animals, sugar beet
4	Trä och kork	4	Wood and cork
	Därav		*Whereof*
	Rundvirke		*Wood in the rough*
	Sågade och hyvlade trävaror		*Wood, roughly squared or sawn lengthwise, sliced or peeled*
	Flis, trä-/sågavfall		*Wood chips and wood waste*
5	Textil, textilvaror, konstfibrer, andra råmaterial från djur eller växter	5	Textiles, textile articles and man-made fibres, other raw animal and vegetable materials
6	Livsmedel och djurfoder	6	Foodstuff and animal fodder
7	Oljefrö och oljehaltiga frukter och fetter	7	Oil seeds and oleaginous fruits and fats
8	Fasta mineraliska bränslen	8	Solid mineral fuels
9	Råolja	9	Crude petroleum
10	Oljeprodukter	10	Petroleum products
11	Järnmalm, järn- och stålskrot och slagg avsett för omsmältning	11	Iron ore, iron and steel waste and blast-furnace dust
12	Icke järnhaltig metall eller skrot	12	Non-ferrous ores and waste
13	Metallprodukter	13	Metal products
14	Cement, kalk, byggnadsmaterial i bearbetad form	14	Cement, lime, manufactured building materials
15	Obearbetade eller bearbetade mineraliska ämnen	15	Crude and manufactured minerals
	Därav		*Whereof*
	Jord, sten, grus och sand		*Earth, sand and gravel*
16	Natur- och konstgödsel	16	Natural and chemical fertilizers
17	Kolbaserade kemikalier, tjära	17	Coal chemicals, tar
18	Andra kemikalier än kolbaserade kemikalier och tjära	18	Chemicals other than coal chemicals and tar
19	Pappersmassa och returpapper	19	Paper pulp and waste paper
20	Transportutrustning, maskiner, apparater, motorer, monterade eller omonterade och delar därtill	20	Transport equipment, machinery, apparatus, engines, whether or not assembled, and parts thereof
21	Metallvaror	21	Manufactures of metal
22	Glas, glasvaror och keramiska produkter	22	Glass, glassware, ceramic products
23	Läder, textilier, kläder, andra tillverkade varor	23	Leather, textile, clothing, other manufactured articles
	Därav		*Whereof*
	Papper, papp och varor därav		*Paper, paperboard and manufactures thereof*
24	Övriga varor inkl tomemballage	24	Miscellaneous articles, incl. packaging
	Därav		*Whereof*
	Blandad last inkl styckegods		*Mixed load*
	Sopor, avfall inkl snö		*Waste products, incl. snow*
	Vägarbeten m m		*Road works*

Farligt gods-klassificering enligt ADR/ADR-S

Dangerous goods classifications according to ADR and the Swedish version ADR/S.

Hazardous goods/Dangerous goods is defined by the European Agreement concerning the international carriage of dangerous goods by road (ADR) - United Nations, Economic Commission for Europe.

ADR/ADR-S kod		ADR/ADR-S code	
1	Explosiva ämnen och föremål	1	Explosives
2	Komprimerade, kondenserade eller under tryck lösta gaser	2	Gases, compressed, liquified, dissolved under pressure or refrigerated
3	Brandfarliga vätskor	3	Flammable liquids
4.1	Brandfarliga fasta ämnen,	4.1	Flammable solids
4.2	Självantändande ämnen	4.2	Substances liable to spontaneous combustion
4.3	Ämnen som utvecklar brandfarlig gas vid vattenkontakt	4.3	Substances which in contact with water, emit flammable gases
5.1	Oxiderande ämnen	5.1	Oxidising substances
5.2	Organiska peroxider	5.2	Organic peroxids
6.1	Giftiga ämnen	6.1	Poisonous (toxic) substances
6.2	Smittförande ämnen	6.2	Substances liable to cause infections
7	Radioaktiva ämnen	7	Radioactive material
8	Frätande ämnen	8	Corrosives
9	Övriga farliga ämnen och föremål	9	Miscellaneous dangerous substances

Lasttyper

Cargo type codes

According to United Nations, Economic Commission for Europe, Recommendation No.21/Rev.1, Codes for types of cargo, packages and packaging materials, August 1994.

Lasttypskoder		Cargo type codes	
0	Flytande bulkgods	0	Liquid bulk goods
1	Fast bulkgods	1	Solid bulk goods
2	Stora containrar, 20 fot eller mer, växelflak, etc.	2	Large freight containers, 20 ft or more, swap/swop bodies etc.
3	Andra containrar, mindre än 20 fot	3	Other freight containers, less than 20 ft
4	Pallastat gods	4	Palletized goods
5	Förslingat gods	5	Pre slung goods
6	Självgående mobila enheter, ex vägfordon, som lastbilar med tillkopplade släp-/ påhängsvagnar	6	Mobile self-propelled units; i.e. road motor vehicles and accompanying trailers, semitrailers
7	Andra mobila enheter, ej självgående; ex löstrailers, påhängsvagnar	7	Other mobile units, i.e. unaccompanied trailers, semi-trailers
8	–	8	–
9	Andra godstyper, ej uppräknade ovan	9	Other cargo types; all cargo not elsewhere specified