STATISTICS ON PUBLIC TRANSPORT

Summary in English

SIKA Report 2000:2

STATISTICS ON PUBLIC TRANSPORT

The task

In June 1997 the Swedish Transport and Communications Research Board (KFB) approved a joint application from Lund Institute of Technology (LTH) and the Swedish Institute for Transport and Communications Analysis (SIKA) for a project to develop statistics on public transport and community-financed travel. This report is the final report from this project.

The report has been produced by a working group consisting of: SvenAllan Bjerkemo, Bjerkemo Consultant, representative of Teknik och Samhälle, Department of Traffic Planning at Lund Institute of Technology; Lennart Thörn, Swedish Institute for Transport and Communications Analysis (SIKA); and Ulf Tunberg, The Office of Regional Planning and Urban Transportation, County of Stockholm.

Bengt Holmberg, LTH, has been responsible for the project. Jan R. Gustafsson, SIKA has been project manager.

A reference group has been linked to the project which initially consisted of representatives of the Swedish Bus and Coach Federation, Stockholm School of Economics, KFB, The Federation of Swedish County Councils, LTH, Swedish Association of Local Authorities, SIKA, Swedish Public Transport Association and the National Road Administration. When SIKA together with a number of other agencies was given the task of developing the objectives of transport policy, the reference group was expanded to include the other transport agencies and the National Rural Development Agency. In the final phase of the project, the National Public Transport Agency was also included in the reference group.

A project in two phases

The project has been carried out in two phases:
- A description of the present situation and
- Proposals for a future statistical system.

The first phase was reported in SIKA Rapport 1998:*6 Statistik om kollektivtrafik – En inventering* (Statistics on Public Transport – An Inventory, in Swedish). This contained a review of the body of rules governing public transport, and presented existing statistics and the result of an inventory of users' needs. Certain concepts

were also defined in the report. Some minor changes of earlier definitions were made in this report.

The background to the project is that current statistics on public transport and community-financed travel are deficient. Some parts of the activity are relatively well described while information is lacking for other parts. Definitions and classifications are not uniform making relevant comparisons difficult. Good statistics are necessary for a number of reasons, including planning, research, follow-up, market information and as a basis for public debate.

The proposal means that uniform statistics are collected and created for all forms of community-financed travel and public transport such as scheduled services, including supplementary transport, school travel, transport service, medicare travel, total defence travel and tourist and charter traffic.

Private taxi travel and travel by organisations, etc. are not included in the definition of public transport proposed here.

The intention is to compile statistics on all forms of public transport and community-financed travel. They need then to be described in a uniform way to enable comparisons to be made. Some information may be difficult to obtain or will not be relevant for all forms of transport.

National statistics should be at a general level and include a limited number of variables but still be sufficiently detailed so as not to be watered down. It is therefore proposed that certain background factors be included in the statistics presented to permit calculation of key ratios and to make possible comparisons or other analyses.

The ambition has also been to create a more customer and community-oriented statistical report. The proposal therefore includes variables that describe accessibility, safety, and environment for public transport. The accessibility concept also includes variables that make it possible to monitor the adaptation of public transport for the disabled.

A particular, important aspect is to be able to describe how the costs of travel partly financed by the community are financed broken down according to traffic revenue, community-purchased transport, income from other activities and grants from central government, county councils and municipalities.

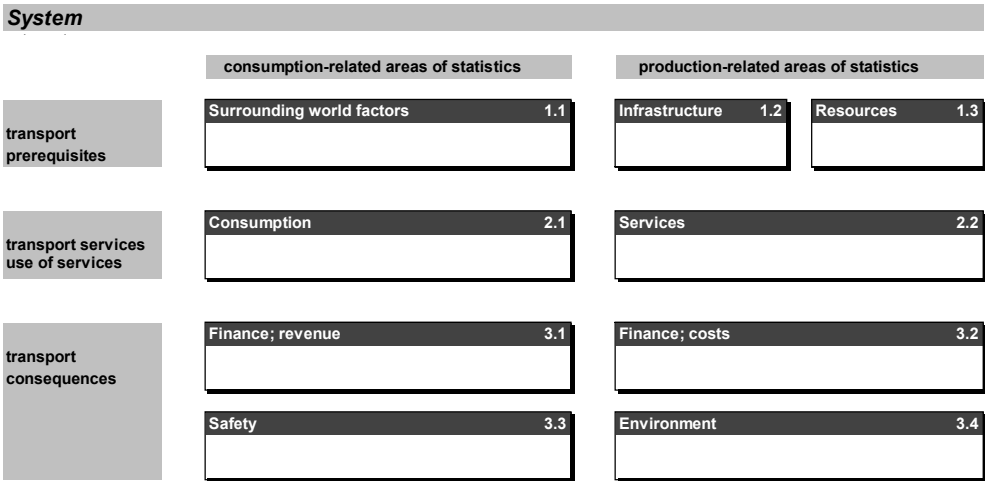
The fully developed system describes an ideal situation which will be difficult to achieve and, for every expansion of the system, costs must be weighed against benefits.

The statistical model

The proposed statistical system includes three main groups of variables that describe:

- transport prerequisites
- transport services on offer and use of transport
- transport consequences,

see the diagram below. These have in turn been sub-divided into nine areas of statistics:



The choice of variables and variable areas has been adapted to existing statistics. The variables have also been selected in order to provide a good breadth in the description of public transport. It shall be possible to use them to clarify and monitor the different transport policy goals where public transport is important.

It is proposed that the following variables be included.

System content

Surrounding world factors 1.1
total no. of
- **compulsory school pupils entitled to school travel**
- **upper secondary school pupils with a travel grant**
- **persons with municipal transport service**
- **persons with intra-municipal transport service**
- **persons with medicare travel benefits**
- **those on total defence service with travel privileges**

land area

Infrastructure 1.2
Route served, length of lines
line km = total length of lines

Resurser 1.3
Vehicles broken down according to
- **adaption, disabled**
- **size class**
- **type of energy**
- **age class**
- **environmental class**

Consumption 2.1
travel
Passengers, for air and sea travel arrivals and departures
journeys
transport performance
Passenger kilometers

Services 2.2
Range of services
Total vehicle kilometres
Service kilomteres
Seat kilometres and total km
Departures (primary interregional traffic)
service hours

Finance; income 3.1
total income
traffic income total,
- **payment for travel by particular groups**

other income
Grants/supplements

Finance; costs 3.2
total costs
transport costs (incl capital expenditure, vehicles)
other costs
capital expenditure facilities and other infrastructure

Safety 3.3
Traffic
Accidents with injury to persons
Consequences
fatalities
seriously injured
Not seriously injured

Environment 3.4
Energy use
emissions
- **Carbon dioxide (CO^2)**
- **Nitrous oxides (NO_x)**
- **Sulphur dioxide (SO^2)**
- **Volatile Organic Compounds (VOC)**
- **particles**

Note. Variables in bold letters are reporting variables.

Classifications

The statistics need to be classified different ways to be presented in a meaningful way. The proposal entails the use of three geographical levels:

- *local och regional transport*
- *interregional transport*
- *international transport*

A classification of the type of traffic based on functional and administrative levels is shown at the same time for each level.

The intention of using the administrative boundaries of responsibility is to facilitate the collection of statistics and to provide the parties concerned with high motivation, good feedback and high quality statistics. The differing bodies of rules also argue in favour of this categorisation.

A classification is therefore proposed into general public transport, other public transport (including school travel, transport service, medicare travel and total defence travel) as well as tourist and charter travel, see figure below.

This classification is primarily of interest for local and regional transport and is needed to be able to compare different types of transport and to relate to earlier statistics.

Traffic area	Type of transport					
	General Public transport	Public transport for particular groups				tourist and charter traffic
		school transp.	transp. service	Medicare Transp.	1	
local and regional traffic						
Interregional traffic						
International traffic						

1. Travel by total defence personnel

It is proposed that the county should be the primary unit for statistical purposes for local and regional transport. A breakdown to the municipal level may be more meaningful or necessary for certain kinds of information. The same applies to a breakdown into transport in built-up areas and other transport.

In many cases, it is of interest for information to be classified by means of transport, for instance, to be able to monitor the development of travel by train and bus respectively. It is therefore proposed that statistics be presented for the most common types of transport.

It is proposed that the report present mainly annual values. For local and regional transport, it is also proposed that information be presented on the range of services available and use of traffic for a “typical weekday”.

The principle for responsibility for provision of basic data is that the purchaser is responsible. The actual responsibility for the provision of information will be determined in detail in connection with expansion of the system.

Printed yearbook

The information shall initially be made available in the form of a printed yearbook which is to be made available free of charge and on the Internet. It is proposed that the first year of publication be 2001, i.e. including statistics for 2000. It is proposed that the yearbook be financed by budget funds that SIKA requests for the 2001 year of operations.

It is proposed that the yearbook have the same arrangement as SIKA's existing yearbook on Transport and Communications. The presentation will have the same structure as the proposed statistical system where areas of statistics, surrounding world factors, infrastructure, resources, consumption, range of services, revenue, costs, accidents and environment effects are presented with short comments. The yearbook should also include a section presenting various key ratios.

The state's work in this area should be guided by the various tasks given by the Government and the requirement for statistical reporting made by the EU. The project also includes making recommendations on new official statistics within the area. It is proposed that the statistics on transport service and inter-municipal transport service will be official statistics in future.

THE SWEDISH INSTITUTE FOR TRANSPORT AND COMMUNICATIONS ANALYSIS

The Swedish Institute for Transport and Communications Analysis, SIKA, is an agency that is responsible to the Ministry of Industry, Employment and Communications. SIKA was established in 1995 and has three main areas of responsibility in the transport and communications sector:

- To carry out studies for the Government
- To develop forecasts and planning methods
- To be the responsible authority for official statistics

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