

**Summary:**

# Travel Behaviour in Norway 1998

## Aims and definitions

Three national travel surveys have been undertaken in Norway, the first in 1984/85, the second in 1991/92 and the third in 1997/98.

In connection with the debate on Parliamentary Report No. 32 (1995-96), it was resolved to undertake a Travel Survey every four years. That of 1997/98 was the first of these four-year surveys.

The objective of the national travel surveys is to investigate the travel patterns and activities of the population. These are designed to provide information concerning:

- the extent of journeys undertaken
- the length of the individual journeys and duration
- the mode of travel and reasons for the journey
- which groups in the population undertake the various types of journey; variations in travel customs according to residential location.

This provides us with the opportunity to say something about how travel customs may vary dependent upon certain factors, and how these change according to diverse external factors.

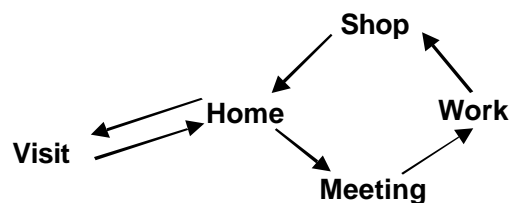
Data for the travel surveys is used in connection with planning the road network and the public transport system, as a basis for transport models, prognosis, investment calculations, traffic safety measures, and a range of research and development programs.

The travel surveys cover all types of individual journeys, both the shorter daily journeys as well as longer journey undertaken more seldom, and cover all transport modes including pedestrians.

Basically, a *journey* is every movement outside the home, school, workplace or leisure-time residence – independent of the length of journey, duration, purpose or mode of transport employed.

The travel surveys restrict the definition of a journey to the particular purpose. Upon arrival at the destination which is the purpose of that particular journey, then the journey is concluded. On a single journey one or several modes of transport may be employed. Walking or use of bicycle are considered as a means of transport similar to use of the car or public transport.

The following figure shows six individual journeys:



The purpose of a journey is normally defined on the basis of the destination. Journeys ending at home are defined according to the purpose of the immediately preceding journey.

In some circumstances the concept *main journey* is used. A main journey is one which commences and finishes at a base location such as the home, school, workplace or leisure-time location (holiday cabin, for example). In the above diagram there are three main journeys: 1) home to workplace via meeting; 2) workplace to home via shop; 3) home to place of visit.

## Access to transport resources

80 per cent of the population aged 13 years and above own or have access to a cycle while only 10 per cent of them (aged 14 and above) have access to a moped and/or a motor bike. The proportion of the population owning or having access to a bicycle has increased even though, expressed in percentage terms, this was relatively modest in the 1990s.

Access to a bicycle is highest among those under 20 years. Access to a moped is also higher in the younger age groups.

88 per cent of the population aged 18 and above possess a driving license, an increase of 5 per cent since 1992. During the 1980s there was a stronger increase in the proportion of persons possessing a driving license than in the 1990s. The higher percentages with a driving license are found among:

- men
- persons between 25 and 54 years
- persons with a higher education
- persons actively employed
- persons in higher income groups.

90 per cent of the population belong to a household owing at least one car. Of these at least a half have their own car, but a third have two or more cars. The share of households possessing a car increased in the 1980s, but showed a small decline in the 1990s.

Generally, access to a car has improved. 65 per cent of the population have always access to a car. The percentage for this group increased markedly during the 1980s but has stabilised in the 1990s.

That group of the population where we find the greatest number of cars in the household and that group with the largest proportion who always have constant access to a car, largely coincides with that group where most own a driving license.

15 per cent of the population have excellent public transport where they live; 21 per cent have good public transport and 17 per cent have a satisfactory public transport service. 33 per cent experience poor or very poor public transport. 14 per cent do not have public transport in the vicinity of their residence. Access to public transport has not shown any changes during the 1980s and 1990s.

There is a clear distinction between the level of public transport supply for those residing in towns and those in the rest of the country, also between small and large towns. The best public transport service is clearly to be found in Oslo/Akershus, where 38 per cent have an excellent public transport service and a further 25 per cent have a good service.

In the towns there are relatively few who have a poor or very poor public transport service. Outside the urban areas the situation is quite

different. Here only 1 per cent have an excellent service, 5 per cent a good service while 66 per cent have a poor or very poor service.

## **The extent of travel**

In 1998 the population aged 13 and above undertook an average of 3.20 journeys every day. In 1992 the corresponding frequency was 3.26 journeys per person per day. Nevertheless, there was no significant change in mobility between 1992 and 1998.

An average journey is 11.9 km with a duration of 20 minutes. This implies that on average each person travels 38 km per day using 66 minutes. People travel approximately as far and use as much time in 1998 as in 1992.

The majority of journeys are short both in distance and duration.

Those groups in the population who undertake most journeys per day:

- are men
- are younger than 45
- are single with children, or couples with children
- are actively employed
- have high incomes
- have a driving license
- have two or more cars in the household
- have excellent or good public transport services in the vicinity of their residence.

With few exceptions it is these groups who undertake most journeys per day, who travel the longest distances, and who use most time for travel.

## **Modes of transport**

55 per cent of all journeys in 1998 were undertaken as car driver; 11 per cent as car passenger. The car is thus the main mode of transport for two-thirds of all journeys. A quarter of all journeys were undertaken by non-motorised means: 19 per cent were undertaken as pedestrians, and 6 per cent as cyclists. Travel by public transport comprised 9 per cent of the population's journeys in 1998.

From 1985 until 1992 the use of the car increased strongly at the expense of all other forms of transport. This development continued throughout the 1990s but not to the same extent. From 1992 until 1998 the increase in

journeys as car driver has been 4 per cent. At the same time there has been a reduction in journeys as car passenger. The proportion travelling by public transport, and as pedestrians and cyclists, has not changed during the 1990s.

The majority of journeys involve a single mode of transport.

Journeys by collective transport are almost three times as long and last twice the duration as the average for all journeys. The shortest journeys in length and duration are those taken as a pedestrian or as a cyclist.

Those groups with the highest proportion of journeys undertaken by car:

- have a driving license
- have two or more cars in the household
- have always access to a car
- are male
- are in the 25-54 age group
- have higher education
- are actively employed.

Those groups who walk most:

- do not have a driving license
- do not have a car in the household
- are women
- are under 18, or 67 or more
- are single
- have low education
- are not actively employed
- have a low income
- reside in the largest towns.

Groups who cycle more frequently than others largely coincide with those who walk frequently, and where there is a particular predominance of younger persons.

Journeys by public transport are more frequently undertaken by those who:

- do not have a driving license and/or a car in the household
- reside in Oslo/Akershus
- have good public services in the vicinity of their residence.

## Journey purpose

The pattern of activity is reflected in the individual's travel pattern.

From 1985 until 1992 we experienced a reduction in the proportion of journeys associated with work and school, particularly in business

journeys, but an increase in the number associated with care needs. During the 1990s there has been a small increase in journeys connected with school and work, and a decline in those connected with shopping, leisure and visits.

Journeys to work and business journeys are undertaken by those who are actively employed. Journeys to school are essentially undertaken by those under 18 years.

Those aged 67 or more and pensioners undertake a relative high proportion of journeys connected to shopping and service, while those aged 25-44 undertake most journeys related to caring for others, including those taking/fetching children to or from the kindergarten or leisure activities.

Those with most time available at their own disposition generally undertake the most leisure-time and journeys for visiting.

- Most of the journeys related to care for others involve use of the car (84 per cent), usually concerning taking/fetching small children, on business journeys (71 per cent), and journeys to work (65 per cent).
- Walking is the most frequent mode for leisure journeys (41 per cent), and where travelling can be an activity in itself.
- Journeys to/from school are frequently undertaken on foot (26 per cent), by bicycle (11 per cent), or public transport (40 per cent).
- The share of public transport is higher than average for journeys to work.

## Long journeys

Long journeys are defined as those exceeding 100 km within Norway or journeys between Norway and abroad.

About 15 per cent of the population have undertaken at least one long journey during the previous month. Of those, most have taken 1-2 long journeys.

Most long journeys are undertaken by:

- actively employed persons
- persons with higher education.

The car is the most used mode of transport for journeys under 300 km. Plane is most frequently used for long journeys. The railway accounts for a larger proportion of the market

for journeys exceeding 300 km than bus. Journeys by ferry and boat account for a low market proportion of all journeys exceeding 100 km.

Small changes have occurred in the use of transport means for journeys between 100 and 300 km in the period 1992-1998. On journeys above 300 km the plane has increased in significance at the expense of the car. Use of other means of public transport has hardly changed between 1992 and 1998.

On long journeys under 300 km the car is most frequently used by all groups in the population.

On journeys over 300 km the car is used for two of every five journeys.

Those groups travelling by car more than others on the longest journeys:

- are women
- are in the youngest or oldest age groups
- have low education
- are not actively employed or part-time
- have a car in the household.

On the longest journeys the plane is used in the first instance:

- by men
- persons aged 18-44
- persons with higher education
- actively employed persons
- persons in higher positions
- persons in a high income household
- those living in large towns.

Holiday, leisure-time travel and visiting friends and relatives are the most important purposes for all long journeys. Service travel comprises a significant part of all journeys exceeding 300 km. A relatively large proportion of long journeys are for private purposes although the proportion declines with increasing length of journey.

Between 1992 and 1998 the share of journeys connected to work and journeys related to private errands increased while holiday, leisure

and journeys associated with visits declined relatively.

A half of all long journeys have their destination in the Oslo region or south-east Norway.

Between 1992 and 1988 there were considerable changes in the use of transport mode between the Oslo region and the certain urban areas in western and southern Norway. In particular the proportion of journeys by plane has increased largely at the expense of the car, but also for other modes of transport.

On long journeys tickets including one or other form for rebate are the norm.

Rebate (discount) tickets are used on three-quarters of all journeys by train, two-thirds of bus, ferry and boat journeys, and a half of all journeys by plane. The plane is the only mode of public transport where a (small) majority pay full price.

The majority of long journeys incur an overnight stopover. On average there are 2.6 stopovers per journey. The longer the journey, the more likely a stopover will be made. For journeys between 100 and 150 km there are 1.9 stopovers; for journeys exceeding 300 km the average is 3.5.

60 per cent of all journeys out of the country have Sweden, Denmark or the U.K. as their destination. Of these, one half are to Sweden. Of the remainder the majority are to destinations in north, central or southern Europe.

There is a considerable contrast in the use of various transport modes on international journeys. The car dominates on journeys to Sweden and the ferry is the main means of transport for most journeys to Denmark. For other foreign destination plane is the most common transport mode, and virtually exclusive for all journeys outside Europe.

The purpose of the majority of foreign journeys is holiday/leisure. This applies particularly to destinations in Scandinavia and southern Europe.