

**Summary:**

# **Transport performances for vans and small lorries**

## *Purpose and method*

The main objective of this survey was to acquire more knowledge of the transport performance of small goods vehicles with a carrying capacity of less than 3.5 tonnes. The survey covers vans, combined vehicles and lorries, but not private cars and buses. Data for assessing the transport performance of these categories of vehicles has long been inadequate. In the survey, which was carried out in autumn of 2003, emphasis was on goods transport.

Altogether 7,500 vehicles were selected, of which 4,200 were lorries with a carrying capacity of less than 3.5 tonnes. Two different questionnaires were designed – one for lorries and one for the other categories of vehicles (appendix 1 and 2).

The response rate in the survey before reminders were sent was 40 per cent for lorries and 41 per cent for vans and combined vehicles. After reminders, the response rate was 59 per cent. The response rate from companies and/or self-employed persons was clearly lower than that from private owners. This was corrected by weighting. The survey is therefore considered to be representative for the population.

## *Main results: form of ownership, mileage and use of the vehicle*

The proportion of cars in private ownership varies considerably among the vehicle categories. Only one-third of lorries are privately owned, while on the other hand a total of 82 per cent of small combined vehicles (carrying capacity of less than one tonne), have private owners. The average distance driven per year shows relatively small variation between the different vehicle categories. Lorries are driven 14,700 kilometres per year, and vans and combined vehicles around the same distance.

Small goods vehicles are used for the transport of both people and of goods, as well as for driving in connection with a trade/occupation and service work. Goods transport dominates for lorries, while large vans are often used by artisans and repairmen. Combined vehicles are mostly used for the transport of people. For small vans, the main emphasis is on the transport of people and transport in connection with work by artisans and repairmen.

*Main results: goods transport*

Table A shows some main results for freight transport. Lorries (with a carrying capacity of less than 3.5 tonnes) are on average driven almost 13,000 kilometres annually for goods transport. Vans are often used for goods transport too, while combined vehicles are used in freight transport only to a modest extent. Small vans cover more than a half of the vehicle kilometres of all small goods vehicles. The main reason for this is that the number of vans is relatively large compared to the other categories of vehicles.

*Table A: Average annual driving distance per car, average annual driving distance per car in goods transport, and traffic volume and volume of transported goods for the entire stock of vehicles, by category of vehicles.*

Category of vehicles	Average per car (kilometres)		Entire stock of vehicles	
	Annual driving distance	Distance driven in goods transport	Traffic volume (million vehicle kilometres)	Volume of goods transported (million tons)
Small vans	15 200	7 400	1 565	4
Small combined vehicles	14 400	2 900	200	1
Large vans	17 300	9 100	460	1,6
Large combined vehicles	12 400	4 000	90	0,5
Lorries (carrying capacity < 3,5 tons)	14 700	12 800	452	6

TØI report 720/2004

*Conclusions*

The survey shows that vans with a carrying capacity of less than one tonne play a significant role in the transport of goods. The number of vehicle kilometres for these vehicles is approximate what was previously assumed. On the other hand the survey shows that the tonnes transported and the tonne kilometres by these vehicles in recent years have been far less than that previously assumed.

Combined vehicles with a carrying capacity of less than one tonne play a very modest role in the transport of goods. This is partly due to the fact that this category of vehicle is mostly used for the transport of people and that the number of vehicles is small and declining. The survey shows here as well that tonnes transported and tonne kilometres are far fewer than what was previously assumed.

Vans with a carrying capacity of more than one tonne are important for goods transport, although the number of vehicles is smaller than that of the small vans. The transport performance for 2003 lies well below the Statistics Norway's lorry survey figures estimated in 1999. This applies mainly to tonnes transported and tonne kilometres and less to the vehicle kilometres. The same applies to small combined vehicles.

The situation is different for lorries with a carrying capacity of less than 3.5 tonnes. In this case, the results from this survey and Statistics Norway's lorry survey are similar.

All things considered, our opinion is that the present survey provides the best basis for estimating transport performance for these types of goods vehicles. As for vehicle kilometres, vans with a carrying capacity of less than one tonne and lorries with a carrying capacity of more than 3.5 tonnes are the dominating categories, with a total of 71 per cent of vehicle kilometres. Large vans and lorries with a carrying capacity of less than 3.5 tonnes each amount to 11 per cent of the vehicle kilometres for goods transport. In total, combined vehicles are responsible for 7 per cent of the total number of vehicle kilometres.

As for the amount of goods and transport work, large lorries totally dominate when tonnage is considered. A total of 94 per cent of the tonnes transported and 96 per cent of tonne kilometres is carried out by lorries with a carrying capacity of more than 3.5 tonnes. This does not of course mean that the other vehicle categories are less important, but merely that these vehicles transport goods that are relatively light but that may often be of high value.