

**Summary:**

# **The extent and cost of school bus transport for 6-year old children**

The objective of the research presented in this report was to estimate the extent of school bus transport for 6-year old children and the costs of such transport. The background for making these estimates is that the starting age for school in Norway is going to be reduced from 7 to 6 years. Current practice is to provide school buses for all children who have to travel at least 4 kilometers (one direction) to school. The report estimated the costs of extending this practice to 6-year olds or, alternatively, to provide bus transport for shorter distances for 6-year old children. An assessment of accident risk will be made in another project.

A model of the geographical distribution of children with respect to the distance to the nearest elementary school was developed in order to estimate the costs of providing bus transport. Children who were three years old by January 1, 1994, are the first birth cohort to start school when they become six years old. Model development consisted of locating schools, estimating the distances from school to all residential areas in a municipality, estimating the places of residence of six year old children and estimating the distance from home to school for all six year old children. Costs were estimated on the basis of aggregate figures available at the county level.

The number of children who are entitled to bus transport according to current regulations (at least 4 kilometer distance in one direction) was estimated to about 6,450 in 1996/97. This figure will be almost the same during the 1997/98 school year. If the minimum distance for providing bus transport is reduced to either 3 or 2 kilometers, the number of children entitled to bus transport becomes 9,600 and 15,650, respectively. These figures do not include 135 children who have to travel by ferry or children with disabilities that entitle them to transport irrespective of distance. The mean travel distance for children who were entitled to bus transport according to current regulations is 8.1 kilometers. This will be reduced to 6.5 or 5.0 kilometers if the minimum distance is reduced to 3 or 2 kilometers.

Comprehensive cost data for school bus transport are not available at the national level. Data were collected from the public transport departments of the county administrations of Akershus and Oppland counties. The total costs of transporting 6-year old children to school according to current regulations were estimated to be 62.4 million Norwegian kroner (NOK) (about 10 million US Dollars at the current (June 1995) exchange rate). Municipalities are responsible for about 21 million NOK of these costs.

If the minimum distance is reduced to 3 or 2 kilometers, transport costs were estimated to about 75 million NOK or 95 million NOK, respectively. Municipalities will be paying 25 or 32 million NOK of these costs, respectively. Transport costs increase less than the number of transported children when minimum distance is reduced to 3 or 2 kilometers. The reason for this is that reducing minimum distance to either 3 or 2 kilometers substantially reduces mean travel distance of transported children.

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