

Summary:

The extent and costs of alternative schemes for transport of school children in Norway

The purpose of the analyses presented in this report was to estimate the extent and costs of alternative schemes for bus transport of school children in Norway. Children in the age groups of 6, 7 to 9 and 13 to 15 years are considered. The effects of the bus transport schemes on road safety have not been estimated.

Cost data were obtained from regulatory agencies in the counties of Akershus and Oppland. It was estimated that municipalities pay about one third of the costs of bus transport for school children.

In order to estimate the distances from home to school for children in the different age groups, a comprehensive geographical data base was created. The data base comprises information concerning the location of schools and the location of residential areas. It was generally assumed that the shortest route from home to school would be chosen. Travel distances were estimated for each municipality (of which there are about 430 in Norway), but costs of bus transport were only estimated for each county (of which there are 19 in Norway).

Comparison of the estimates with other sources show that the model correctly estimates the number of children who are entitled to bus transport according to the distance criteria currently applied. A majority of the municipalities report higher numbers, but these include a number of special groups (disabled children, children attending private schools, etc.) not included in this report.

The number of 6 year old children who are entitled to bus transport in 1997 was estimated to 5,600 if a distance limit of 4 kms is applied and 14,500 if a distance limit of 2 kms is applied. The costs of providing bus transport for 6 year old children are 55.2 and 83.6 mill NOK, respectively (USD 8.6 million and 13.1 mill).

For children in the ages of 7 to 9 years, the current distance limit of 4 kms implies that 17,200 children are entitled to bus transport, at an annual cost of 165 mill NOK (USD 25.8 mill). If a distance limit of 2 kms is introduced, the number of children who are entitled to bus transport increases to 43,100. Annual costs increase to 244 mill NOK (USD 38.1 mill).

For children in the ages of 13 to 15 years, distance limits of 4 and 5 kms were compared. The current limit is 4 kms. 44,600 children are entitled to bus transport according to this distance limit, and the annual costs are 556 mill NOK (USD 92.8 mill). If a distance limit of 5 kms is introduced, 37,500 children will be entitled to transport, and the annual costs will be 520.5 mill NOK (USD 81.3 mill).