

Summary:

Experiences with low fares on public transport. A literature study

Background

This report summarises knowledge about the effect of fare reductions and looks at some Norwegian and Swedish examples of various forms of fare rebates.

Public transport fares are one of the most discussed themes in the public debate about public transport. High ticket prices are often blamed for the fact that public transport does not reach the targets for a higher number of journeys or an increased proportion of passengers using public transport.

The following problems are considered in the report:

- How do fares affect the demand for public transport?
- What experiences do we have of different forms of fare reduction in Norway and Sweden?

Fares as a tool

Norwegian and international studies indicate that the price elasticity in local public transport lies between -0.21 and -0.6 , depending on the time perspective. A survey of Norwegian literature found that the price elasticity in Norwegian local public transport lies at -0.38 . This means that a reduction in fares of 1 per cent will lead to an increase in passengers of 0.38 per cent, given that other conditions remain unchanged.

It can be misleading to work with one general price elasticity. The elasticity varies with both the characteristics of the passenger and the characteristics of the journey. Different passengers react differently to price changes. Some prioritise lower prices and lower standards, while others would happily pay a little more to travel in more comfort. Experiences from the Research Group show that targeted fare experiments have had the best effect, i.e. those which are targeted at given target groups or market segments.

A number of the fare reductions which have been implemented through the Norwegian Research Group have resulted in a relatively large growth in passengers using public transport. The effect has been greatest where

fare reductions have been combined with other improvements in public transport provision.

There are many factors which affect the demand for public transport. Routes, expressed in vehicle kilometres per inhabitant, appear on their own to have had a somewhat greater significance for demand for public transport than fares. Fuel prices have had a somewhat lower effect than fares. The difference between the three factors, however, is not significant. In other words there is statistical uncertainty connected with the actual difference between the three factors' effect on the demand for public transport. Nonetheless, the analyses show that there are a number of factors which have approximately the same significance on public transport as fares.

A central objective with many of the fare experiments is to transfer travel from cars to public transport. The experiences from the Norwegian fare experiments, however, show that changes in fares have a limited effect on the use of cars.

Results from evaluations of four packages of measures show that there are a large number who do not know what the level of fares is. Between 50 and 60 per cent of the working population in the Tønsberg area, Nedre Glomma and the Drammen region replied that they knew what a single ticket from the area where they lived to the town centre would cost. In other words, 40-50 per cent do not know what a ticket would cost.

A number of Norwegian studies have shown that many travellers pay "over the top" for their journeys, i.e. that by buying rebate cards they could have travelled considerably more cheaply than they actually did in relation to their journey frequency. There may be a number of reasons for this. One reason may be that price does not mean very much, i.e. that travellers are not very price sensitive. Another reason may be that the marketing of ticket sales is not good enough or that the rebates available are not suitable for the market and are too complicated.

The majority of counties have introduced, or are planning to introduce, electronic ticketing, which will increase the opportunities for simplifying the price system. The payment system in the county of Västernorrland is a good example of how a differentiated – and relatively

complicated – fares system can be designed in such a way using electronic ticketing that it nonetheless is simple for travellers to use.

Experiences with targeted fare rebates

Rebates for multi-journey- or weekly/ monthly travel cards for the 16 to 20 year-age group are the most common form of targeted fare rebates. The evaluation of the youth card in Rogaland and Vest-Agder shows that school children are the largest user group of youth cards. It appears that the youth cards result in an increased frequency of journeys amongst young people. However, the majority would have used the bus even if the youth card did not exist. Some would have cycled and walked if the card did not exist, but there is only a limited number who would otherwise have driven a car. This is probably connected with the fact that only a small proportion in this age group would have access to a car.

The introduction of youth cards is often justified by the long-term effect: that it is important to instil good travel habits at an early age. However, we do not have any information which indicates the extent which the introduction of the youth card may have had in the long term..

The shopping card in Stavanger and the Sandnes area proved to have a limited effect on passenger figures. However, it is difficult to draw clear conclusions due to incomplete statistics and because the trial only ran for a short period. In spite of the fact that one of the sub-objectives of the trial was to increase the numbers using public transport, no studies were carried out which could indicate whether this objective had been achieved.

Halving the fares on the ring route in Sandnes had a positive effect on passenger numbers. However, it is not clear how many of these journeys were transferred from another bus route (NSB) to the new ring route. Since it was a new service, it is also unclear to what extent the increase in passenger numbers is due to the new route or to reduced prices.

Experiences with general fare rebates and free public transport

In smaller cities where the capacity utilisation of public transport is small and the marginal costs are low, reduced prices can lead to an increase in the use of the existing capacity. This has proved to be the case in both Kristinehamn and Molde.

In all areas, reduced fares have led to an increase in passengers. However, it is not possible to say anything

about the isolated effect of the fare reductions in areas where different improvements in public transport services have been introduced alongside the reduction in fares, or where fees have been implemented for the use of cars (for example the toll ring).

In areas where the passengers have been asked about alternative forms of transport if rebates had not been introduced, the majority of passengers would still have travelled by bus. Many would otherwise have gone by bicycle or would have walked, while the proportion which would have gone by car is relatively small. Nonetheless, this can have a positive environmental effect, in that some car journeys are replaced by bus journeys, as has been shown in Molde.

A change in the distribution of modes of transport as a result of fare rebates has not been demonstrated in any of the areas.

Conclusion

The objective of reduced fares is to achieve a positive passenger development for public transport, whatever the type of rebate which is implemented. Often the objective is to increase the use of public transport at the cost of car usage.

However, it is difficult to say anything about the extent to which these objectives have been realised when there is insufficient documentation for evaluating the measure in relation to the actual objective of the fare reduction. This is a challenge for future work on fare reductions in public transport. In planning trials with fare reductions of various kinds, it is important to obtain the following information:

1. Passenger statistics for the before situation and after the measure has been put into force. Ideally the statistics should be as detailed as possible, divided into months and ticket sales.
2. Before and after studies which provide an adequate basis for being able to indicate the effect of the price reductions. The type of study required should be evaluated in relation to the type of objectives which are to be evaluated.
3. Good documentation of the before and after situation, for example an overview of any other changes which have occurred during the period which may have influenced the passenger figures. If the price reduction is introduced alongside other measures, without there being an overview of the changes which have occurred, it will not be possible to establish the isolated effect of reduced prices.