

**Summary:**

# **Travel Activities and Attitudes towards Transport and the Environment among Young People**

## **A study of young people in Oslo**

### **Introduction**

The basis of travel habits and attitudes towards travel modes is formed in early childhood and develops during adolescence. Children and young people are influenced by their parents' transport behaviour, by their friends, and by values and culture in society. Travel patterns and choices of transport modes also depend on available options, either private transport resources or public transport supply.

The amount of chauffeuring children to and from different activities has increased, both as a result of increasing organised leisure activities, often remotely located, and also as a result of the better access to a car in Norwegian households. A car is common in most households, and this may lead to a strong socialisation to car use.

Young people under 18 years of age, especially those who live in urban areas, are probably more dependent on public transport supply than most other age groups. They are too young to drive a car and their parents may not be as willing to chauffeur them around as when they were younger. They probably are the age group who has best knowledge of the public transport service. However, there is little knowledge about how they actually use public transport and how their use of transport means alter when they are 18 years, the age when many obtain a driving licence.

Along with the general increase in car use, different forms of environmental consciousness and behaviour take place in the population. Several studies have investigated young people's opinions towards the environment. Still, there is some uncertainty about which role environmental consciousness plays in young people's decisions about travel modes and whether they connect environmental issues to transport and the inclination to acquire driving licence and car at all.

Studies that combine questions of young people's activities, travel behaviour and attitudes towards traffic and environmental issues are almost absent in the literature. The same applies to knowledge about socialisation towards travel behaviour and towards the use of transport modes. We therefore know very little about how we "learn" our travel habits, to the extent we can call it habits. Likewise, we do not have much information about the relationship between attitudes to different transport modes (walking, cycling, car and public transport), the use of these modes, and the degree to which these attitudes are connected to

knowledge of and consciousness about environmental issues. Young people of today are the adults of tomorrow. It is therefore important to get information about young people's opinion in these matters.

## **Questions to be answered in this report**

- Which travel experiences have young people acquired during childhood and adolescence? How often have they been chauffeured around and how often have they used other transport modes? How do they perceive their parents' and friends' travel behaviour?
- What are the activity and travel patterns like among young people? Which transport modes are used for different activities? Which differences are found among young people of different gender, age, place of residence and socio-economic background?
- Which are the attitudes of young people to different modes of transport (cycling, public transport and car)? Are they anxious to get a driving licence and to buy a car of their own? Is it important for young people to have the possibility to use a car in the future?
- Are young people concerned about traffic-related environmental problems? How is their knowledge about these issues? Are young people concerned about the environment?
- Which impact do early travel and transport experiences have on current choice of travel modes? Does parents' travel behaviour, especially car use, have any impact on young people's attitudes towards transport? Are children and adolescents being "socialised" to travel behaviour, and how does this socialisation process work?
- How strong, if any, are the links between the choice of transport mode, attitudes to transport and environmental consciousness? Does choice of transport mode depend on attitudes towards transport and the environment, or, to reverse the issue, are attitudes rather adjusted to one's actual pattern of behaviour?

## **Sample and methods for data collection**

Our study concentrates on young people in urban areas. To limit the scope of the study, we have selected a sample of young people in the age range of 13 to 20 years in Oslo. The choice of Oslo was made from the consideration that the structural conditions should be as similar as possible and that the chosen areas had a good public transport supply.

The sample was divided into three age groups: 13-15 year (comprehensive school), 16-17 year (secondary education) and 18-20 year (potentially obtaining driving licence). These three groups will be in different situations regarding daily transport needs, because of their participation in different activities in different distances from home. These age groups differ from each other regarding possibilities of getting chauffeured, in their access to transport resources, and they are different with regard to consciousness of traffic-related and environmental issues. Therefore,

for our purpose it is appropriate to divide the sample according to school age and the age when they can acquire a driving licence.

The study was carried out by means of postal questionnaires. The questionnaire was distributed to 4500 young people in Oslo, equally divided according to age group and place of residence (east and west) in Oslo. With 2074 responses being received, the result was a response rate of 46 per cent.

## **Young people's access to transport means**

Transport resources, either it is young people's own resources or their parents', are affecting the choice of travel modes. Of prime importance, of course, is access to a car, especially for young people over 18 years.

Nearly 90 per cent of the sample have a bicycle, about 3-4 per cent own a moped, and only a few have a motorbike. About half (47 per cent) of the respondents in the 18-20 age group already hold a driving licence; 38 per cent of the girls and 58 per cent of the boys. 11 per cent of this group also have their own car.

Car ownership is more common among males, among young people of working class background, among those who attend a vocational study or are employees, and among youths from the eastern part of Oslo, which represent a lower socio-economic standing than the western part. Family income is of no importance to whether young people buy a car or not, but the opportunity to borrow one is greater in high-income families than in low-income families. Totally, 67 per cent of the age group of 18-20 year olds have the opportunity to borrow a car either occasionally or as often as they want to. There are no gender differences in this regard.

Household income is the most important factor affecting young people's access to transport resources (car). This is due to the fact that high-income families often have more than one car, providing their children with better opportunities of borrowing one.

## **Active young people**

We asked the young people about activities they had participated in during the week before answering the questionnaire. They were also asked how many times that week each activity was carried out. On average, the young people in our sample participated in nearly 8 different activities that particular week (carried out one or several times). They had about five or six journeys per day, on average. No gender differences were found regarding the level of activity, i.e. number of journeys.

The most common activities among the teenagers are visiting friends, shopping, do sports activities, go to cafés/restaurants, and to spend time with friends in the neighbourhood, in the city centre or other places. Visiting family and relatives is also highly represented.

Participation in organised activities, like bands, choirs or sports events or competitions is more common in the youngest age group, and decreasing with increasing age. This is also the case for visiting youth clubs and spending time with friends in the neighbourhood. Getting older, participation in activities located in the central urban area increases.

Females are more often members of bands or choirs, they visit cafés, cinema, the library, and do shopping more often than males do. Males are more frequently engaged in sports training and spend their time more often with friends in the neighbourhood.

### **Different types of activities generate different transport needs**

The activities young people are engaged in can be characterised in several dimensions. Some activities are obligatory, like school and work, others are voluntary, like sports, cinema, disco, and so on. Among the voluntary activities we can divide between organised activities in different organisations and associations, like sports and music activities, and unorganised activities. We also divide between activities that mainly take place in the neighbourhood, for example visiting friends and attending youth clubs, and activities that more often is located in the city centre, like cinema, theatre, disco and shopping.

These dimensions are determining for the transport need. Different activities generate different travel modes. Therefore, we also asked the young people about which transport means they used last time they participated in the actual activity.

50 per cent went by foot or bicycle to school or work, while 40 per cent used public transport. Very few were chauffeured to school or work. Travelling to organised activities requires more often chauffeuring (25 per cent). This is especially predominant for travelling to different sports or music events and competitions. Approximately half of our sample travelled as a car passenger to these activities. Of course, travel modes also differ according to distance and place of activity. Activities located in the central parts of the city require travelling by public transport (70 per cent), while activities in the neighbourhood more often are reached on foot or by bicycle (about 60 per cent).

### **Young people's use of different transport means**

On the average, young people's journeys are made by the following modes:

- 27 per cent on foot
- 7 per cent by bicycle
- 45 per cent by public transport
- 16 per cent as a car passenger
- 6 per cent as a driver of a car, moped or motorbike

Within all types of activities, males and females differ regarding the modes used. The picture appearing is that females more often than males walk and travel by public transport, whereas males cycle and use motorised vehicles (car, moped/motorbike) twice as often as females do. There are, however, no differences between males and females regarding how often they travel as car passengers. This picture corresponds with gender differences in adults' travel behaviour.

Changes in travel modes from the age of 13 up to 20 can shortly be summarised as follows:

The 13-15 age group first of all use their own feet; they walk or cycle a great deal. Many of their activities are located in the neighbourhood. They are also chauffeured around, especially when they are off to organised activities.

The 16-17 age group have a wider range of action. This requires a public transport supply, which is the most important mode of transport for young people in this age. Because of the longer distances, they do not walk or cycle as much as when they were younger, and their parents do not chauffeur them around as much as earlier.

Almost half of the 18-20 age group have obtained a driving licence. The ability to drive a car, along with changes in activities and the location of these activities, is the most important factor that contributes to changes in travel behaviour in this age group. The car is more often used and reduces the demand for other modes of transport.

There are no differences in travel behaviour between young people who live in the eastern and western parts of Oslo respectively, nor are there any differences between young people with different socio-economic background. A factor that strongly affects travel behaviour is the private transport resources; particularly parents' possession of cars, the number is naturally related to their income. Increasing number of cars in the household leads to more car use among the youth, either as a passenger or as a driver. The possibility to borrow a car from parents (or others) or to have an own car, are factors that contribute a great deal to car use among young people over 18 years.

### **Attitudes towards transport modes**

In a few years, the youth generation will encounter several possibilities for choosing between different modes of transportation in their daily lives. Similar to the parental generation they will to a greater or less extent be car drivers. Car use has increased during the last decades, but experiences indicate that improvements of the public transport service at least can maintain the proportion using public transport. Increased environmental consciousness in the population may also affect the choice of daily travel mode, and environmental consciousness is related to both knowledge and attitudes.

It is of importance, therefore, to reveal young people's opinion about issues related to travel and choice of transport means. What is their opinion about cycling? Are they satisfied with the public transport supply, and with travelling by this mode? How interested are young people in cars and car use, and how do they perceive future car use?

The respondents were presented to a series of statements about different transport modes, and asked to what degree they agreed or disagreed in each of them.

### **Attitudes towards cycling**

Three fourth of our respondents claim that cycling is fun. Quite many (62 per cent) also agree in the statement claiming that cycling makes it easy to get around. Nevertheless, approximately half of them say that cycling is strenuous and that it is dangerous, and this may partly be the explanation for the rare use of cycling as a

transport mode. Moreover, this indicates that efforts should be done to improve the traffic conditions and safety for cyclists.

There are certain gender differences in the opinions about cycling. Males are generally more positive to cycling than females are. Females think cycling is more strenuous, time-consuming and dangerous than males do. The younger age group is also more positive than the older ones.

### **Attitudes towards public transport**

Public transport is perceived as rather insufficient, especially when it comes to the service yielded (driver conduct and friendliness), the price (too expensive) and comfort (overcrowded). Nevertheless, almost 40 per cent agree with the statements claiming that public transport is fast and that it is desirable because it makes it possible to travel anywhere at any time. Females are a little more positive regarding these two statements than males are. More positive attitudes towards this mode are also found in the younger age group, who not yet have experienced the negative aspects of public transport to the same extent as young people over the age of 16 years have.

As many as 84 per cent of the young people in our survey agree with the statement claiming that public transport supply should be expanded, the older age group showing the greatest concern in this matter. This may point in the direction of extended use of public transport in the future if this transport mode is being improved. Some of the factors that have to be improved are related to comfort, time-consumption, driver attitudes and service.

### **Attitudes towards car**

The young people surveyed are obviously anxious to acquire a driving licence and a car. 70 per cent wish to buy a car as soon as they can afford it, and 90 per cent of those not already holding a driving licence intend to get one. There are no gender differences regarding the intentions to acquire a driving licence. The fact that more males than females already have one or have started driving practice may be due to stronger priorities in this direction among males, whereas females feel they can postpone it.

The respondents attach, to some degree, importance to the aspects of time and the ability to get around, which is connected with car use. Approximately 40 per cent of the group agree with statements claiming that the car is the fastest transport mode and that the car enables one to get around. However, at least as many, or even more, disagree with these statements, indicating a great dissension in this matter. It is not surprising to find males to be more interested in car and car use than females are.

Approximately 60 per cent have the opinion that car use in the biggest cities must be reduced, and nearly 80 per cent believe that this will be reality in the future. At the same time, they acknowledge that the car still will be the predominant transport mode in the future.

### **Young people's environmental understanding**

We tried to map young people's environmental understanding, understood as knowledge of and consciousness about environmental problems, especially traffic-related problems. The results show that the young people in Oslo evidently are aware of the environmental damages caused by car traffic. When asked about what they perceive as the most important environmental problem in Norway at present, 44 per cent claim that it is air pollution from the car traffic (whereas 34 per cent claim industrial pollution to be most important). As many as 87 per cent agree with the statement claiming that car traffic is damaging to the environment.

The young people in our survey have quite good knowledge about environmental problems caused by car traffic (such as air pollution and noise), and this knowledge increases with age. Young people acquire information about environmental problems mainly from television, newspapers and in school. We should mention that only 4 per cent of the respondents are members of an organisation for the environment.

Young females are more concerned about the environment than young males are. This finding is consistent with previous studies on these matters among both young people and adults. Young people attaining a general secondary education and students at the university or college are more concerned about the environment than people studying at a vocational school and employees.

Moreover, young people's access to transport resources (i.e. car) is related to their environmental attitudes. Young people (18-20 years) who have good access to a car tend to express less environmental concern than those who have poorer access do. This can be connected to the fact that access to a car affects the *use* of this mode, and as we know, it is reasonable to assume that there is a link between behaviour and attitude in this matter.

To a certain degree the young people express attitudes showing a *collective* responsibility to reduce car use and the environmental damages caused by car traffic. More than 60 per cent of the respondents agree with a statement claiming that they are willing to reduce future car use if others do the same. This collective responsibility seems a lot stronger than the *individual* responsibility towards the environment. This is found in the responses to the statement claiming that one is willing to travel by public transport instead of using car in the future. About half as many agree in this statement.

Half of the young people respond positively to a statement claiming that one are willing to accept a lower standard of living if this is required to improve the environment. More females than males have that opinion. Attitudes like this are promising if they are representative for the future adult population.

## **Socialisation towards transport behaviour**

One of the main purposes of this study was to investigate if and how children and adolescents are being "socialised" to future transport behaviour. To probe into this issue, we asked the following questions:

- Is there any relation between children's travel behaviour and the travel behaviour they have as teenagers?

- Is there any relation between parents' travel behaviour and their children's way of travelling (in the 18-20 age group) and their attitudes towards transport modes and the environment?
- Does travelling as a car passenger in childhood and adolescence have any influence on young people's own car use (in the 18-20 age group) or their attitudes towards this transport mode?

In other words, the focus of this part of the study is to investigate whether young people's travel experiences, including perception of their parents' travel behaviour, have any influence on their choice of transport mode and on their attitudes towards transport and environmental questions.

### **Travel behaviour in childhood has little influence on later travel behaviour**

It is possible that children's use of travel modes can develop habits that are being maintained during adolescence. However, our results show that travel behaviour in childhood (in this study 10 to 12 years) to a certain degree corresponds with the travel behaviour of the 13-15 age group. The relation is weakening for the 16-17 age group, and there is no consistency at all in the 18-20 age group. This applies both to walking and cycling, public transport use and to travelling as a car passenger.

This means that young people's use of different modes of transport changes with age and the consistency to earlier travel behaviour vanishes. This is probably a result of changes in the localisation of school, work and leisure activities, along with a wider range of action.



## **Parents' transport behaviour affects young people's travel behaviour and attitudes**

Parents' travel behaviour can be regarded as part of the transport experiences of children and adolescents. Analyses show that parents' travel behaviour, especially their car use, is reflected in the car use of young people over 18 years. In other words, young people adopt travel behaviour from their parents. However, we will emphasise that this relation is dependent on the number of cars in the household. The more cars, the more use of car among both parents and their children.

Parents' travel behaviour also affects the children's attitudes to transport and the environment. Young people in "car households", understood as those having parents who use the car to a large extent, are significantly more positive to car use and are, moreover, less concerned about the environmental aspects of transport means than young people having parents using car to a less degree. The young people in "car households" are anxious to get their own car as soon as possible, less interested in improvements in the public transport service, and are less willing to reduce their future car use in respect of the environment.

These results show that parents are important role models for their children with regard to the development of transport behaviour and attitudes.

## **Chauffeuering does not affect the socialisation process**

Our analysis indicates that the degree that children and young people are being chauffeured around does not have any effect on their present travel behaviour and attitudes. In other words, there is no accordance in the degree of travelling as a car passenger during childhood and adolescence and the degree of choosing a car as transport means after attaining the age of 18. Nor does this passive car use have any affect on the development of attitudes towards car use.

## **Consistency between behaviour and attitudes in the transport field**

To a certain degree there is a consistency between behaviour and attitudes regarding transport. Young drivers in the 18-20 age group evidently have a more positive view on car use than young people who seldom or never drive. Young drivers also pay less attention to the public transport service and they are less concerned about environmental problems caused by car use.

There are also a certain consistency between the use of public transport and the attitudes towards this. It seems like extensive use of public transport on one hand reinforces the impression of certain negative aspects, like high price level and bad comfort. On the other hand, extensive use of public transport leads to greater interest in choosing this mode instead of car in the future, and the users express their interest and claim an expansion of the public transport service.

As this consistency is revealed, we will ask whether the attitudes lead to the behaviour, or the behaviour and habits affect the attitudes. Following the theory of cognitive dissonance, it is reasonable to assume that attitudes are adjusted to behaviour in many areas, including that of travel behaviour. However, it is not

easy to decide the direction of this causal connection, both explanations could be equally valid.

This means that the consistency we have found between car use and attitudes towards this mode among young people over 18 years, not necessarily means that their car use is a result of positive attitudes towards car traffic. It can also mean that these positive attitudes are a result of an adjustment to the actual behaviour (car use).

### **How can young people be “educated” to get positive transport behaviour?**

Our study shows that parents are important role models with respect to the development of travel habits and making choices of transport modes among children and adolescents. However, earlier studies point to the fact that transport behaviour can be influenced at any age. It is possible to “teach” people to travel by public transport.

Appropriate efforts and marketing strategies are of prime importance. One of the important results from this study shows that the younger age groups have more positive attitudes towards public transport than the older ones. In other words, attitudes towards this mode become more negative as one grows older and gets more experiences with public transport. Another result from the study shows that positive attitudes towards car use and lower degree of environmental consciousness correspond with car use among young people over 18 years. However, we do not know whether they had these opinions *before* they became car drivers, or if these opinions rather have been developed *after* they got used to this transport mode.

These results imply that it is of prime importance to make efforts to maintain the positive attitudes towards public transport by the younger age group, not yet having the opportunity of car driving.

Efforts and attitudinal campaigns must reach the young people *before* they become used to car driving, because established habits are often hard to change.