

**In-depth follow-up of the  
transport policy objectives**

**Summary  
Report 2018:14**



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# Summary

Transport Analysis has been tasked with conducting an in-depth follow-up of the transport policy objectives. This task includes reporting on the current status of the transport system in relation to those objectives, as well as assessing their fulfilment in the long term. Transport Analysis is also to propose metrics for describing the status of a number of contiguous policy areas of importance to the feasibility of achieving the transport policy objectives.

## **Employment and competence supply**

Roughly 126,400 people worked in the transport field in 2016. This is more than the number of elementary school teachers, which was roughly 102,000 that same year. The employment figures are dominated by road transport, which accounted for 85% of those employed. Rail transport accounted for 8%, maritime transport for 4%, and aviation for 3% of those employed in the transport field. The majority of those who work in the transport industry are hired employees, while some 6% are self-employed. Taxi drivers are usually self-employed. 23% of taxi drivers are self-employed. The share is less than 10% in other occupations. The hired employees are predominantly men, with the largest shares being found in road transport and maritime transport.

Analysis of the future labour force indicates that a total of roughly 23% of workers will have retired by 2025, a level consistent with expectations. Rail transport is the transport mode that will have the highest share of retirees by 2025, with engineers and railway station workers being the two occupations with the highest shares. Maritime transport and road transport follow, while aviation will have the lowest share. Analysis of training capacity indicates that there is sufficient capacity to replace this number of retirees with newly trained workers. However, the analysis does not account for the fact that certain occupations may be transitional occupations, such as taxi driving, or that training may lead to work in other fields, as in the case of maritime officers. Many of the occupations included in the analysis are also population related, which means that a growing population will normally lead to greater demand for those occupations. Population growth points to increased demand, but how the employment picture develops also depends on economic development. There is reason to assume that the recruitment needs may be greater than the analysis indicates.

## **Social sustainability: Mobility and affordability**

Regarding the functional objective, it is relevant to follow up mobility and access to public transport, driving licences, and cars. The overall metrics for access to public transport, driving licenses, and cars comprise, appropriately, the shares/numbers of persons who have or do not have access to them. We consider it to be possible to follow up these metrics. Access to public transport is also tied to the objectives of Agenda 2030.

Mobility and access to public transport, driving licenses, and cars differ between population groups. It is possible to illustrate these inter-group differences by reporting values for each one, although ratios between groups can clarify these differences.

We consider it both relevant and feasible to follow up mobility in relation to gender, age, functional impairment, income, and municipality type. Mobility in socially vulnerable areas is considered relevant, although future access to data is more uncertain there. The follow-up of

socially vulnerable areas in terms of driving licence possession, car access, and public transport is also considered relevant, but here again the future access to data is uncertain.

We consider it relevant and feasible to follow up:

- driving licence possession in relation to age, gender, country of birth, municipality type, and income
- car ownership in relation to household type, municipality type, and income
- access to public transport in relation to municipality type

It is possible that access to public transport could also be followed up in relation to income, age, and gender.

Low-income households spend greater shares of their incomes on housing and transport. Household expenses are viewed as a relevant indicator to track in order to understand the affordability of transportation. On the other hand, access to data in this area is limited, making it difficult to include this indicator in the annual follow-up of the transport policy objectives.

### **Social sustainability: Personal security and vulnerability in the transport system**

The report shows that a lack of personal security may limit actual transport system accessibility. Since the initial security studies from Statistics Sweden (SCB) and the Swedish National Council for Crime Prevention, a greater share of women than men have refrained from walking at night or opted for alternate routes or modes of transport due to concerns about crime. However, in recent years, female behaviour has been negatively affected to a greater extent than before. The increase has been greatest among the youngest women (aged 16–29 years), but it has occurred among all women up to the age of 79 years as well. The proportion that refrains from walking at night due to concerns about threats or violence was highest among women of Swedish background in 2016–2017, while before that time the proportion had been highest among women of foreign background.

When we study the trends in different geographic regions, we can see that the increase between 2012–2013 and 2016–2017 in the number of women who refrained from walking at night due to concerns about threats or violence has been nationwide. Most notable is the increase among residents of Malmö Municipality. Women in socially vulnerable areas also constitute a group whose mobility is greatly limited by concerns about being victims of crime, although the increase in women refraining from night-time walking has been greater in other groups in recent years. A lack of personal security is thus limiting mobility and transport system accessibility among these groups, insofar as they are adapting their behaviour or refraining entirely from a given mode of transport or activity or from using a given road/route for fear of being a victim of crime. Such a lack of personal security can have a negative effect on the transport policy objectives in that the transport system is not equally accessible for everyone who lives in Sweden.

The National Transport Survey does not specify which modes of transport are being rejected in favour of others. However, women account for the greater share of public transport users, and are more inclined to adapt their route or mode of transport due to concerns about being victims of crime. It would consequently be of interest to see whether any transitions are occurring between types of transport as a consequence of changes in people's behaviour. If this should entail an increase in the share of modes of transport associated with higher emissions, it could also affect other aspects of the transport policy objectives. The lack of personal security is thus one aspect that we can justifiably continue to monitor closely in future follow-ups of the transport objectives.

### **Social sustainability: Traffic safety and socioeconomic factors**

There are significant differences in a number of socioeconomic factors between those involved in traffic accidents and those who are not. Substance abuse, age, gender, and social vulnerability in some form are examples of significant factors. However, it may instead be that other explanatory factors partially underlie the demonstrable covariations in any case. For example, young people often have a weaker position in labour market, but the fact that they are more involved in traffic accidents may be attributable more to their youth than to higher average unemployment. On the other hand, economic factors do have a major impact on how many new vehicles a person owns, and on the likelihood that those vehicles will be equipped with the latest safety technologies, such as four-wheel drive, electronic stability programs, and automatic distance control.

Some of the data presented here have already been reported within the framework of the follow-up of the transport objectives, or in Transport Analysis's annual reporting on traffic injuries, primarily in connection with road traffic. Additional information may be found in the Swedish Transport Administration's reports on in-depth analyses of traffic safety efforts in general, and on road traffic injuries in particular.

Regarding the types of elaborations made possible by correlating registers from the National Board of Health and Welfare, the Swedish Social Insurance Agency, and Statistics Sweden, Transport Analysis does not believe that it would be possible to conduct these types of studies within the framework of an annual follow-up. On the other hand, more in-depth subject-specific follow-ups in the area of traffic safety could be relevant.

### **Access to housing and housing construction**

There is interplay between access to housing and the development of personal transportation from a regional perspective. A lack of housing makes access to labour more difficult and can lead to increased commuter travel. At the same time, improved commuting options lead to higher demand for housing located farther from the centres of the strongest labour market regions. The total housing stock in December 2017 was roughly 4,860,000 residences, divided among detached houses, multi-residence buildings, specialised housing, and other types of flats. The high level of housing construction that prevailed in 2017 corresponds roughly to what the National Board of Housing considers, on average, will need to be built annually up to 2025, i.e., what the Board believes is required to accommodate population growth and the existing unmet need for housing. If the forecasts for reduced construction in 2018 and 2019 hold true, this need will increase even more in coming years, which could in turn conceivably drive demand for transport as well.

One issue elucidated in various ways in the report is the extent to which future housing will offer good access to public transport, walking, or cycling. Regarding public transport, statistics show that housing construction in recent years has been sited closer on average to busy public transport stations than is existing housing. However, these statistics do not take into account the fact that most new construction has occurred in urban areas, which generally have higher public transport density. If we instead compare areas with similar population densities, we find that the new construction, at least during the new establishment phase, appears to exhibit somewhat lower public transport density. This is likely a lag effect.

### **Goal fulfilment in the long term**

The structure of our transport policy objectives is broad in scope. The feasibility of achieving our objectives in the long term differs between elements of the overall objective's scenario. In this report, long-term goal fulfilment has been estimated with the help of a meta-analysis based on several different documents. The documents included in this analysis comprise

Transport Analysis's annual objective follow-up, several other future-oriented studies published by Transport Analysis, the Swedish Transport Administration's 2018 external analysis, and the results of a workshop on external trends conducted in collaboration with relevant agencies. The conclusion from the meta-analysis is that the element of the objectives most favoured by the development trends that we believe will continue in the coming years is "Access for All". On the other hand, two elements expected to require sweeping policy initiatives to be fulfilled are "Climate" and "Traffic Safety".







Transport Analysis is a Swedish agency for transport policy analysis. We analyse and evaluate proposed and implemented measures within the sphere of transport policy. We are also responsible for official statistics in the transport and communication sectors. Transport Analysis was established in April 2010 with its head office in Stockholm and a branch office in Östersund.