Authors Farideh Ramjerdi, Jørgen Aarhaug, Tom Erik Julsrud, Kåre Skollerud
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Director Mark Wardman
Abstract According to Statistics Norway forecasts, the population in Akershus will grow from 556 400 inhabitants in 2012 to 764 000 in 2040. The population in Oslo will grow from 613 000 inhabitants to 832 000 in the same period (SSB 2011). The increase in population in the greater Oslo area (Oslo and Akershus) is predicted to be about 37.3 percent between 2012 and 2040 (SSB, 2011). Such growth would put new requirements for a transport system that is already under severe pressure. Traffic impacts associated with commuting is a key challenge in this regard. About 60 percent of work trips in the peripheries of Oslo and up to 75 percent of work trips made to municipalities in Akershus are made by car at the present. The growth in the population of Oslo and Akershus will generate more work trips by car, especially to areas with a high concentration of employments and businesses. The number of work trips in the region could be even larger with the expectation of the growing number of commuters from areas outside the region.

Without the implementation of necessary policies to curb commuting to work by car, congestion is expected to increase during rush hours with significant negative consequences for mobility, economy, health and quality of life. It will also make it difficult to reach Oslo City Council target of 50 percent reduction in greenhouse gases by 2030 compared to 1991 and the goal set in the National Transport Plan for 2014-23 to accommodate the growth in passenger transport in urban areas by public transport, cycling and walking.

A stated preference (SP) study that was conducted as a part of a research project that reviews and assesses the impact of key policy measures to curb the growth in commuting by car and increase the share of public transport, cycling and going to work in the greater Oslo region. Analyses will focus on six selected zones in Oslo and Akershus where there is a particularly high concentration of work places and high traffic concentration on weekdays. These zones present different levels of accessibility to public transportation, cycle and car. The types and composition of employments in these zones also varies, attracting workers with different socio-economic characteristics and different travel behaviour and attitudes to mobility. The proposed policy packages will be tailored to the different zones in order to achieve the official goals under different scenarios that account for the expected growth in population, settlement patterns, economic and demographic composition.

In a survey conducted among employees of large workplaces at the six zones, respondents reported their travel behaviour to work (in summer and in winter) and suggested different policies that could improve their accessibility to these zones by public transport, cycle and walk. This survey also covered the telecommuting habits of the respondents. A number of policies focusing on curbing car use and improvements in public transportation services and cycle, provided by the respondents, were selected for each of the 6 zones.

The SP survey was conducted among the commuters to work in these six zones. The respondents were recruited in each of the zones and those who agreed to participate in the study received the SP questionnaire via internet. We expect about 2200 respondents and a minimum of 300 respondents per zone.

The first experiment is a vehicle type choice between internal combustion engine vehicle and electric car as a first car and as a second car in the household, with attributes that describes these vehicles. Only the respondents with driving licence get this experiment. The choice set includes no car at all.
A mode choice experiment between car, public transport, cycle and walk, with relevant attributes for car, public transport, cycle and walk, relating to the zone specific policies and with common attribute of weather types in each choice set. Non-availability of a mode is set according to the information provided by each respondent. For example if a respondent does not have access to a car, or walking distance is longer than an acceptable threshold. The levels of the attributes in this experiment are pivoted around the reported values provided by the respondents.
The respondents who suggest telecommuting could be an option for them, given their employment requirements, get a further experiment with attributes of time and cost components for car and public transport with levels pivoted around reported values by each respondent, and number of days per month that they choose to telecommute.
In addition to the information on socio-economic, demographic and locational variables collected from the respondents, attitudinal information and information on respondents travel habits are collected in the study.
The data will be analysed using factor analysis to identify different groups of commuters and the SP data will be analysed using latent class modelling approach.
This paper will present the design of the study, the estimation results and a discussion of the results.