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Title:

Transport mode choice in alpine resorts in Switzerland

Abstract:

Mountain regions are under-represented in transport research, which tends to concentrate on urban areas. This study investigates transport mode choice in 22 locations in the Alps, using data from the 2010 Swiss transport micro-survey (hereafter: MRMT2010) which has detailed information from 68'868 people in a representative national sample who describe their transport behaviour on a reference day.

The Swiss Statistical Office subdivides the territory of Switzerland into city centres, suburbs, outer suburbs, isolated towns, peri-urban rural villages, peripheral rural villages and "alpine touristic centres not included in a conurbation" (hereafter: alpine resorts). We ascertained that there were 454 participants from alpine resorts in MRMT2010, living in 22 communes (Gemeinden). Analyses were carried out using SPSS.

We found that people living in alpine resorts drive individual motorised vehicles slightly more than people living in other areas, covering 25.3 km per day against 16.9 in city centres, 23.2 in suburbs, 26.4 in outer suburbs and 26.7 in isolated towns. The highest levels of car and motorcycle driving were in peri-urban (31.1) and peripheral rural villages (29.1). Walking was as popular in alpine resorts as elsewhere, with an average of 2.3 km per day, slightly below city centres or isolated towns (2.4-2.5 km) and slightly above suburbs, outer suburbs and rural villages (all around 2 km).

It is regarding public transportation that alpine resorts display a distinct profile: their residents cover 3.5 km on a typical day, against 11.0 for people living in city centres and 7-8 km for those living in other types of area.

To try to understand this discrepancy, we reduced the 22 communes in the alpine resort category to 18 by removing 4 that contributed less than 10 participants to the survey. Among the remaining resorts, 6 were in Canton Bern, 5 in Graubünden, 4 in French-speaking Vaud or Valais, one in central Switzerland and two in German-speaking Valais. We verified public transport services in these resorts by using the cff.ch search engine to establish a list of departures on a typical weekday in 2015 (the system did not allow searches in 2010). All had good service. For example, Adelboden had 54 bus departures in various directions between 5.35 and 22.25 and Zermatt had 83 train departures towards the valley between 5.37 and half past midnight.

We then analysed all trips in the database which were either to or from a mountain resort, but not both (to exclude trips within resorts). Looking at mode shares, we found that only 10% of these trips were carried out using public transport if the person lived in a mountain resort, against 23-32% if she lived in a city or conurbation. Fully 80% of trips to or from mountain resorts were by car if the person lived in a mountain resort,

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against 55% if she lived in a city centre and 61-65% if she was from a suburb.

It is not known why mountain resort residents use public transport less than other residents of Switzerland. Our results suggest that it is not linked to insufficient coverage, nor to low overall levels of transportation.

An underlying issue is that, in Switzerland, expensive transport infrastructure and services are maintained in mountain areas which are sparsely inhabited for most of the year. These services which are important for sustainability are used by tourists but this research suggests that they are insufficiently used by local residents.

In 2013, the Federal Transport Office (OFT) declared that railway lines with a financial coverage below 50% might be earmarked for closure: this included 175 out of the 300 regional railway lines in the country. Although the cut-off was subsequently moved to 30%, several lines leading to French-speaking resorts analysed in this contribution meet this new definition and have been included in a preliminary list.

As a contribution to the scientific and political agenda, we suggest that mountain resorts in Switzerland draw up traffic management plans involving not only tourists and other visitors but also local residents, with a view to achieving mode shift. Efforts to do so have been patchy so far. For example the Crans-Montana resort (not covered in this analysis because it is split between several communes) undertook a transport and environment project between 2001 and 2006 which was not renewed when the overarching federal Environment and Health programme (PAES) was terminated in 2007. We believe that a new Environment and Health programme is needed for Switzerland, that transportation issues should feature prominently in it, and that it should concentrate on areas where public transport patronage is low and where railway lines are at risk of being closed.

References

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