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Decreasing popularity of the car? Changes in driving licence and access to a car among young adults over a 25-year period in Norway

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ABSTRACT

The general impression that car-use has reached a peak or the orientation to have a car has stagnated in several Western countries has been associated with young people being less interested in obtaining a driving licence and getting a car. Examination of public statistics and of data from Norwegian National Travel Surveys indicates that the percentage of young people acquiring a driving licence fell during the 1990s and has been stagnating since the start of the year 2000. Over a 25-year period, we find that young people living outside large cities have a car(s) in the household; they are in paid work and are married/cohabiting. They have a driving licence to a much greater degree than those who live in cities and have good access to public transport; they are students and not married/cohabiting. In the same 25-year period we have seen a higher percentage of young people living in the larger cities, spending longer on education and delaying establishing a family. Our cohort analyses indicate that young cohorts/generations defer from obtaining a driving licence. At age 30 years the proportion of licence holders has been around 90%, but analysis of young cohorts from 2001 to 2009 shows that this figure is declining.

1. Introduction

A reduction in the growth of car use is found in different countries. After decades of steady growth in daily travel and use of a car, driving has levelled off in the UK (Metz, 2010), in the USA (Puentes, 2012), and in The Netherlands (Waard et al., 2013). Analysing trends in passenger transport in the USA, Canada, Sweden, France, Germany, the UK, Japan and Australia, Millard-Ball and Schipper (2011) found that total passenger kilometres by motorized modes of travel have slowed in growth relative to GDP, and, in per capita terms, even declined in a few countries.

Similar trends can be seen in the changed mobility behaviour of younger generations in many countries, who seem less interested in obtaining a driving licence and buying a car (Delbosc and Currie, 2013, 2014a; Kuhnimhof et al., 2012, 2013; Forward et al., 2010; Noble, 2005; Hjorthol, 1999; Hjorthol, 2002a; Hjorthol, 2012). The suggested explanations vary. No one single factor is suggested, but rather a combination of several. In a review of the literature, Delbosc and Currie (2013) classify these into six categories. *Life stage*: the increasing rate of educational participation, decreasing employment rates, delayed marriage/children, living longer with parents. *Affordability*: the cost of acquiring a driving licence, petrol and economic recession. *Location and alternative transport*: relocation to urban areas/accessible areas, better public transport. *Driver licencing regulation*: stricter regulation, increased minimum age, mandatory driving lessons. *Attitudes*: acute environmental awareness, car no longer a status symbol (although it still is in some countries), too busy/other priorities. *E-communication*: face-to-face contact supplanted, reduced need for physical mobility.

Of these categories, issues under *life stage* are suggested as having medium impact and *affordability* low to medium impact; the rest low or unclear impact. There is obviously a need for more research.

Research on the stagnation or decline in young adults' orientation to the car is just beginning, with findings reflecting different significance in different countries.

In Norway in the 1990s there was a decline and levelling out the share of young adults (18–24 years) obtaining a driving licence. In 1985, 78% of this age group held a licence, in 1992 it was 83%, while by 1998 it had dropped to 73% (Hjorthol, 1999). The share seems to have stabilized since the beginning of the millennium; 73% in 2001, 73% in 2005, and 72% in 2009 (data extracted from the Norwegian National Travel Surveys) among young adults aged between 18 and 24 years.

In this paper, we present and discuss societal factors that have impacted on the daily mobility of young adults over a 25-year period, while focusing on the importance of holding a driving licence and having access to a car.

The questions we address are:

- Societal changes that might have had an impact on daily mobility during the 25-year period 1985 to 2009.
- Specific changes in the life situation of a young adult group (18–24 years), changes that have an impact on the holding of a driving licence.

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- The impact of different factors on obtaining a driving licence and buying a car in this age group during the 25-year period.
- Young people delaying their application for a driving licence or even refraining from having one at all.

The first two questions are answered using accessible statistics (mostly from Statistics Norway) and the results used as a backdrop for analysis of Norwegian National Travel Survey data for this 25-year period.

These datasets provide a unique opportunity to analyse one and the same phenomenon over a long time span (cross-sectional multivariate analysis of the driving licence and access to a car) and to follow cohorts or generations (at an aggregate level) in a time perspective relating to development of the holding of a driving licence. Three effects can be examined: the *cohort effect*—belonging to a specific generation; *the period effect*—the time between surveys and what happens in the period; and the *age effect*—growing older.

After this introduction, we present and discuss the development of societal factors that have an impact on mobility and, especially, car-use. We present data and methods in section three, and, in section four, indicate factors that have an impact on the age group 18–24 years obtaining a driving licence together with analyses of factors explaining access to a car. In addition, we analyse driving-licence holders following the same cohorts over the 25-year period. The results are discussed in the final section.

2. Changes in important factors over a 25-year period in Norway

Material/structural and demographic conditions changed significantly in Norway in the 25-year period 1985 to 2009. The population increased by 17%, and more people now live in urban areas (Table 1). There was net migration to central urban municipalities and much of it to the south-eastern parts of the country, i.e. the metropolitan area of Oslo. Urbanization is characterized by both metropolization[1] (Krätke, 2007) and reurbanization (the movement of people and economic activities back into city centres, often related to gentrification) (Lees, 2000).

Income and wealth increased significantly, with the proportion of higher educated people rising and the number of cars multiplying faster than the population. There was a greater proportion of women in the workforce in 2009 than in 1985, with more of them holding a driving licence. All this meant more travel and more cars on the roads.

Today, the official statistics show a decrease in the size of households in the country, increased life expectancy and increased average age of first-time mothers. These are factors that have had an impact on: the number of trips taken outside the home, why they are taken and the mode of transport used. The increased population has meant that more people are travelling. The average age has increased – first-time mothers in particular – and, with it, changes in the reasons for travel, in time-use and in the mode of transport.

During the period 1985–2009, the public transport supply improved but mainly in the bigger cities (Vågane et al., 2011).

Penetration and distribution of information and communication technology (ICT) took place rapidly in the period, and while only 10% of people had a computer in 1985, by 2009 this had reached 92%. Internet technology came into use in the middle of the 1990s and by 2009 about 91% had access to the Internet at home. Nearly everyone (97%) had their own mobile telephone in 2009, while in 1999 the figure was only 58%.

Several of these factors clearly relate to the daily mobility of the younger generations. The increased level of education in the population indicated that young people spent longer in education, and as a result might postpone having a family and children (the increase in the average age of first-time mothers is an example). Adolescence is extended, often in the larger cities where the higher educational institutions are located, and these youngsters have relatively low income. Economic reasons and urban single living might contribute to a lessening interest in obtaining a driving licence and purchasing a car.

Access to and use of a wide range of information and communication technology (ICT) devices are more typical of young adults than of older generations. Many new ways of communicating socially have appeared on the Internet. The penetration of ICT has contributed to greater temporal and spatial flexibility in both private and working (educational) life. The discussion on whether and how ICT impacts on physical mobility is expansive and inconclusive. In many cases, use of ICT complements or modifies physical mobility (Hjorthol, 2008; Line et al., 2011; Mokhtarian, 2002). E-communication is hardly a substitute for face-to-face contact, but it is certainly a supplement to it (Aguiléra et al., 2012; Hjorthol, 2002b). Some have pointed to a decrease in the social status of the car and to increased popularity of the Smartphone, raising the question whether the Smartphone is the new icon of the age—as the car once was (Goodwin, 2012). The Smartphone has many advantages compared to the car (as an icon). "Practically, the user does not need expensive lessons, a test, a licence or insurance, and it will not be confiscated by law for misuse" (Goodwin, 2012:22). Intensive use of the mobile phone/Smartphone among young people has rendered public transport more amenable than car driving.

For changes in the conditions concerning car-use and daily mobility in the age group 18–24 years, see Table 2 (this information is taken primarily from the Norwegian National Travel Surveys of the actual years).

The number of people living in the four largest cities in Norway increased from 21% in 1985 to 36% in 2009. Living in a large city reduces the need for a car. The public transport supply is better, the distance to work and services is shorter, but parking is more difficult. In addition, housing costs are higher in the larger cities than in less urbanized areas, so with equal income the amount spent on transport is lower in the most urbanized areas due to housing costs.

While one-third of these young adults were students in 1985, by 2009 more than half were students. More young people are living in larger cities where most colleges and universities are located. The fact

Table 1
Social factors in 1985 and 2009. Norway.

Social factors	1985	2009
Inhabitants	4,145,845	4,858,199 + 17%
Percentage living in sparsely populated areas	30%	21%
Persons per household	2.5 (1980)	2.1 (2010)
Expected age of living (at birth)		
Men	72.3 yrs. (1980)	78.4 yrs. (1990)
Women	79.2 yrs	83.2 yrs
Mother's average age at first child	24.7 yrs. (average (1981–85))	28.1 yrs.(2009)
Persons in the labour force in percentage of the total number		
Men	76%	76%
Women	61%	70%
Number of employed	2,014,000	2,508,000 + 25%
Net income (fixed value NOK 2008)	Kr 110,900	Kr 195,100 + 75%
Net worth (fixed value NOK 2008)	Kr 80,000	Kr 289,800 + 262%
Share with university/college education	13.0%	27.3%
Age school start	7 yrs	6 yrs
Number of passenger cars	1,514,000	2,244,000 + 48,2%
Women's share of driving licence holders	40%	47%
Access to PC at home	9%	92%
Access to Internet at home	(www was introduced at 1991)	91%
Ownership of mobile phone	58%	97%

Source: Statistics Norway (SSB) (1987); Source: Statistics Norway (SSB) (2009); Source: Statistics Norway (SSB) (2010a); Source: Statistics Norway (SSB) (2010b).

[1] An increase in weight of the largest cities in the distribution of some functions, as well as by concentration of population in the metropolitan area.