Mobility ‘Y’: The Emerging Travel Patterns of Generation ‘Y’ [the ‘Millennial’ Generation]

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Abstract
Across a range of high-income societies, today's generation of young adults is less car-oriented than earlier generations when they were the same age.

There is as yet no consensus regarding the causes of this unanticipated phenomenon; some hypotheses have been proposed that suggest that today's young people are less interested in automobiles.

This short paper puts forward empirical evidence from Britain that demonstrates that today's young adults are also subject to an unprecedented set of external constraints that are associated with lower levels of car-oriented lifestyles.

It is concluded that, while it remains possible that today's young people have less desire for car-oriented lifestyles, that is not the most straightforward explanation of the observation that they have lower levels of car ownership/use. Therefore, following the logic of Occam's Razor, the simplest and most straightforward explanation, and therefore the more plausible explanation on the basis of the available evidence, is the 'changing constraints' mechanisms.

The matter is not settled, however, because researchers have yet to establish econometrically whether the 'changing constraints' mechanisms fully account for young adults' decreasing car use, or whether there is a residual unexplained aspect of the phenomenon. Given the level of interest in this research question, it is suggested that generating empirical evidence to advance the present state-of-knowledge ought to be a high priority for the research agenda.

Key words
Peak Car, Generation 'Y', Millennial Generation, VKT, car ownership, driving license, income
1. Introduction
Across a range of high-income societies, today's generation of young adults is less car-oriented than earlier generations when they were the same age.

There is as yet no consensus regarding the causes of this unanticipated phenomenon; some hypotheses have been proposed that suggest that today's young people are less interested in automobiles.

This paper puts forward empirical evidence from Britain that demonstrates that today's young adults are subject to an unprecedented set of external constraints that are associated with lower levels of car-oriented lifestyles.

It is concluded that while today's young people may have less desire for car-oriented lifestyles, this is not the simplest explanation of the observation that they have lower levels of car ownership/use. Therefore, following the logic of Occam's Razor, the burden of proof remains on proponents of the 'today's young people are less disposed towards cars' hypotheses to provide evidence that the more-straightforward 'changing constraints' mechanisms fail to fully explain recent trends. Given the interest in this research question, generating empirical evidence to advance the relevant state-of-knowledge is a high priority for the research agenda.

This paper employs data from Britain, which has an internationally-leading evidence base on which to draw. The centerpiece of Britain's empirical data on personal mobility is the British National Travel Survey; the NTS has been undertaken in broadly similar form on an occasional basis starting in 1965, and on a continuous basis since 1988. By way of contrast, the United States equivalent data resource – the National Household Travel Survey – was most recently undertaken in 1996, 2001 and 2009. As I show in Section 3 of this paper, the British NTS' continuous nature allows us to distinguish between effects of the Great Recession (which began in 2008) and other trends taking place during the 2000s; the US NHTS dataset does not afford the same opportunity because it cannot be known whether differences between the 2001 and 2009 editions are due to the Recession or longer-term phenomenon.

The remainder of this paper is structured as follows: Section 2 presents empirical evidence of today's young adults' decreased levels of automobile access, ownership, and use. Section 3 introduces hypotheses that suggest that young adults' tastes towards cars may be changing. Section 4 presents empirical evidence regarding changing constraints on young adults. Section 5 concludes this paper.

2. Evidence of today's young adults' lower levels of car access, ownership and use
As far back as one may care to look, periods of economic growth in Britain are concurrent with increasing car traffic, and this is no different in peer high-income countries. The mystery is that in the 2000s and right up to the 2007/8 Financial Crisis, the British economy grew at a healthy pace, but car traffic was stagnant, even declining slightly on a per-capita basis. The same pattern can be seen in many of Britain's peer countries in the 2000s.
But this trend – termed ‘Peak Car’ by Prof Phil Goodwin – has not been spread evenly across society. It is young people that have seen the largest impact, and. As documented in *On the Move* (Le Vine and Jones 2012), their mobility patterns have been quite different to those exhibited by older adults. Figure 1 shows that the drop in car use amongst men age 30+ between the mid-1990s and mid-2000s (prior to the Recession) can be accounted for by decreased use of company cars, which appears to be due to strong policy stimulus. For women there trend was flat for young females and upwards for older women. It is only for men under age 30 whose use of private cars substantially decreased between the mid-1990s and mid-2000s.

This phenomenon was unanticipated but it is not a statistical blip – it is persistent in Britain and also borne out by studies across a wide swathe of the developed world, not just in Britain (including the USA, France, Germany, Japan and Australia, see Figure 2 which shows decreased levels of driving-licence-holding). Although young adults continue to travel mainly by car, it is clear that relationships that once held are changing. Whether this will carry on will have major consequences, well beyond transport-sector issues such as infrastructure provision, road safety, and car sales. The implications extend much more widely – how labour markets work will be impacted, as well as questions such as care for older relatives that are increasingly ageing ‘in place’, and therefore generate travel by family members responsible for looking after them.
Figure 2: Average changes in car driving mileage according to ownership of the vehicle, by age group and among men and women, 1995/7 to 2005/7 (Le Vine and Jones 2012)

3. A compilation of hypotheses that ‘Today’s young people are less disposed towards cars’

This section compiles arguments that Millennials (Generation ‘Y’) are less disposed towards car-oriented lifestyles than previous generations were at the same age. Broadly-speaking, one of these strains of hypotheses suggests that young people’s sensitivity to environmental sustainability could be a salient mechanism, and the second strain suggests that it is the opening up of the virtual world (via new information and communications technologies) that is operative.

Sivak and Schoettle (2012): “The results...are consistent with the hypothesis that access to virtual contact reduces the need for actual contact among young people” and (2013): “the increasing availability of virtual contact through electronic means might reduce the need for actual contact among some young people”.

Sivak and Schoettle (2013): “The declining trend of persons with a driver’s license continues, at least in the United States...We think there are four possible mechanisms for this trend...young people tend to be on the forefront of concern about the environment”.

Ciari and Stahel (2013): “This raises the question of whether the spread of Tele-activities is having an impact on Swiss mobility behavior. The answer cannot be found directly in the micro-census, because the survey topics are not directly covered. But if you analyze the individual
activities, you can see that in recent years is a general tendency to spend more time at home…”

[Machine translation from original German performed by authors via translate.google.com]

Metz (2011): “It is noteworthy that driving licence holding amongst young men in Britain has been declining in recent years. For men in their thirties, licence holding has held steady at above 85% since 1975, whereas for men in their twenties there has been a significant decline since the early 1990s to 67% at present. While the cost of car ownership is undoubtedly a factor, we might speculate that the ability to be in almost continuous virtual contact with members of the social network reduces the need for face to face engagement and hence for travel.”

Goodwin (2012): “Factors suggested to explain widespread reduced growth in car use, and some reduced absolute levels of car use in advanced countries [selected]:

- **Cultural and psychological shifts** including a cooling or disappearance of the ‘love affair with the car’
- **Various different forms of e-commerce** (tele-commuting, on-line shopping, virtual conferences and meetings) and e-leisure (social networks, virtual worlds) especially associated with mobile commuting (which in turn is more favourable to public transport use than car driving)
- **Decline of the status**, fashion, social esteem, implicit sexuality and ‘buzz’ of car ownership and use, and their replacement by other products and icons,
- **Telecommuting**, high-technical versions of home working

Lyons (2015): “This paper contends that a fundamental transition is occurring in those societies which have hitherto embraced and centralized the motorcar and which are now (also) embracing the digital age. It suggests that we are some years into a process of gradual yet significant change away from the car as a foreground innovation in human connectivity with its important symbolic as well as functional meaning. This change is taking us into a recast form of society brought about by the affordances of the digital age revolution in which the car is set to become a background, functionally supporting technology. It will be accompanied and overshadowed by a much greater richness in forms of being able to reach people, goods, services and opportunities made possible by information and communications technologies (ICTs).”

4. **Empirical data of ‘Changing constraints’**

This section presents a selection of empirical observations relating to young adults in Britain that are each associated with lower levels of orientation towards cars.

As has been noted earlier in this paper, the rate of driving-licence-holding has fallen for young British adults. This implies that there is a growing cohort of British adults beginning to enter middle age that have never [legally] driven a car. Figure 3 shows, however, that comfortably more than half of unlicenced young adults (age 17-29) report that they do not drive because either 1) they are learning to drive, 2) they are ‘put off’ by the driving tests, or 3) they are deterred from driving by the costs of motoring – and the majority of this latter group report that it is the costs of learning to drive that serve to deter them from driving. The most recent data on the issue (from 2008) noted that the average British person acquiring a driving licence (by having successfully passed first the theory test and then the practical test) reports having taken
47 hours of paid driving lessons. At a rate of £20/hour, this implies nearly £1000 (€1250) of expenditure on driving lessons alone. The average British young adult (age 17-29) has spent 1.7 years (20 months) in the 'learning to drive' status. The process of acquiring a British driving licence is evidently quite difficult and time-consuming for many young adults.

The important question for the present research question is not, however whether it is difficult to obtain a British driving licence; rather it is whether it has become more difficult over time. Figure 4 shows that there has been a sustained downward trend in practical-test pass rates between the early 1990s and mid-2000s – which suggests that it may indeed have become more difficult to pass the test during the course of the time period when the rate of licence-holding by young adults was falling.
We next investigate the economic performance of young adults, and here it is noteworthy that there are several pieces of evidence that young people’s economic activity diverged from the overall trend of economic growth in Britain in the 2000s.

Figure 5 shows the long-run trend in GDP-per-adult in Britain (as well as several peer countries: France, Germany, and the US). During the decade prior to the Great Recession (between 1997 and 2007), aggregate GDP in Britain increased by 2.9% annually; on a per-adult basis the growth rate was 2.2%.

Notes: Analysis based on OECD data. GDP is US$, constant prices, constant PPPs, OECD base year (2005). Adults refer to the population over 16, for which data is sourced from US Bureau of Labour Force Statistics (“working age adults” series). Data for Unified Germany from 1991. For each country the logged series is set to zero in 1997, so the level of the line in any year indicates the cumulative growth rate (e.g. a value of 0.1 in 2001 indicates that the series has grown by exp(0.1)-1=11% between 1997 and 2001). The steeper the slope of the line, the faster growth has been over that period.
Figure 6, however, shows that young British adults experienced a quite different economic trajectory in the 2000s than older adults (the comparison shown is between adults in their 20s versus adults in their 50s). Since 2001 young adults – particularly young men – have seen their incomes trend downwards, whereas both adults in their 50s and the all-ages-average of incomes trended higher. Put simply, while older British people were getting richer in the 2000s, younger adults were getting poorer. This is relevant because there has historically been a positive relationship between income and car ownership/use, both within and between societies.

![Figure 6: Trend in incomes for selected age/gender groups. Source: Author’s analysis of HMRC’s Survey of Personal Incomes](image)

Finally, Figure 7 shows the share of young British people that engage in any work-related activity during a representative diary week; the analysis is performed for single years-of-age. Whereas traditional labour market datasets in the UK gather little if any data on labour-force participation by people below age 16, it is possible to use the NTS data to identify work-related activities by under-16s.

What can be seen in Figure 7 is that, particularly for teenage boys, there has been a sustained downward trend since the mid-1990s in work-related activity by under-16s – the effect can be seen for boys as young as age 11. This complements the finding from Figure 6; together the picture that is emerging is of Millennials being increasingly less economically active than earlier generations were.
5. Conclusions

The mystery of ‘Peak Car’ is that it took shape while the economy was growing healthily, and that it has been young adults leading it. This phenomenon has led to hypotheses that young adults may be turning away from cars for reasons such as their environmental sensitivity or use of new types of information and telecommunications technologies.

But evidence is accumulating that suggests that these speculative hypotheses are not the simplest and straightforward ways to explain young adult’s falling levels of car use. This paper presents evidence of 1) an increasingly-difficult licence-acquisition regime that deters and delays young adults from obtaining a driving licence, and 2) a sharp divergence in the economic performance of older and younger British people. From the early teenage years onwards, fewer of them today are working and of those working their purchasing power has never again attained the level seen in 2001.

This is not to say that the ‘speculative’ hypotheses have no explanatory power – instead the implication is that to say with any certainty that they do have explanatory power will require more-detailed analyses than exist currently.
In the next phase of study of the mobility patterns of Generation ‘Y’, researchers must establish econometrically whether the ‘changing constraints’ mechanisms fully account for young adults’ decreasing car use, or whether there is a residual unexplained aspect of the phenomenon. Given the level of interest in this research question, it is suggested that generating empirical evidence to advance the present state-of-knowledge ought to be a high priority for the research agenda.

**Acknowledgments**

This discussion paper draws on content from the articles in the list of references that are highlighted in green font.

**References**


