Demographic trends: Youth issues, population growth and structure, and urbanisation

Overview

October 2013
Outline

• Summary of key trends in youth transport and factors affecting those trends.
• List of who is doing research.
• Detailed slides on research reports relating to youth and transport.
• Statistics on population growth/decline, population structure focusing on share of youth/age population, and urbanisation growth.
Youth and transport: trends in developed countries

• Youth (15-29) are driving less but not necessarily travelling less.
• Fewer youth getting licenses and/or getting licenses later.
• Lower car ownership – but doesn’t necessarily mean no access to car (use parents’ car etc.).
• Higher rates of public transport use.
• German study showed German youth travelling further and by air more for tourism.
• Overall youth trend is impacting wider contraction of KM per capita in developed countries.
Youth and transport: factors in trends

• Life stage – staying in education longer, entering full time employment later and starting families later
• Access to driving licences has become more difficult through new testing requirements (e.g. graduated driver licencing schemes) and more expensive (e.g. increased requirements for driver training)
• Driving more expensive (e.g. increased petrol prices, youth insurance)
• Increased living in urban areas with greater transport choice
• Status of the car receding – possibly being replaced by IT gadgets
• More environmental awareness (but weak link)
• ICT – unclear links but it’s possible IT devices are more attractive for owning than cars, enable communication without need to travel, or make PT more attractive as IT device can be used on bus/train etc
• Improved PT improved and/or PT is more accessible due to IT advances and instant communication (e.g. live service updates to phone)
Youth and transport: Who’s doing research?

- Alexa Delbosc - Department of Civil Engineering, Institute of Transport Studies, Monash University
- Graham Currie - Department of Civil Engineering, Institute of Transport Studies, Monash University
- Blumenberg, Taylor, Smart, Ralph, Wander, and Brumbaugh - University of California Transportation Center
- Kuhnighthouse - Institute for Mobility Research (ifmo), Munich, Germany
- Buehler - School of Public and International Affairs, Virginia Tech, USA
- Wirtz - Institute for Transport Studies, Karlsruhe Institute of Technology, Germany
- Kalinowska - Deutsche Energie-Agentur GmbH (dena), Germany
- Van Der Waard - KiM, Netherlands Institute for Transport Policy Analysis
- Immers - TRAIL Research School
- Jorritsma - KiM, Netherlands Institute for Transport Policy Analysis
Around 2010 identification of drop in licensing in Australia, North America, Japan and much of Europe

9/14 countries in study show declining rate of drivers licences (average rate of 0.6% per annum)

Mixed across countries but mainly developed countries showing trend

Possible reasons:

– Higher rates in education participation and part time work among young (clearest and most consistent impact)

– Household income less and cost of licenses and driver training more – not clear if financial shocks impact this as trends extend before and after financial shocks

– Youth, esp without children, more likely to live in inner urban areas and have greater choice of transport modes

– Driver license regimes are tougher and cost more with graduated schemes being introduced and more requirements (such as lessons or practice time) – overall becomes a possible barrier to getting a licence

– Attitudinal influences – possible that youth have different environmental attitudes and/or the social status of car is waning

– E-communication - unclear on direct link but possibly youth more connected so don’t need to travel. However, this would mean less travel not just less car trips. Also possible PT is more attractive as can spend time on device and/or PT more accessible through real time communication and updates

Blumenberg, Taylor, Smart, Ralph, Wander, and Brumbaugh (2012) What's Youth Got to Do with It? Exploring the Travel Behavior of Teens and Young Adults, University of California Transportation Center

- Youth (teens and young adults ages 15–26)
- Major link is economics including employment status and household income with lower youth employment and income levels potentially resulting in less car ownership/travel
- IT is a factor but study found it was associated with more travel not less
- Stricter driver licence requirements are resulting in young getting licences later but travel is not suppressed – PT use is higher where requirements are tougher
- Overall, young are travelling fewer miles and making less trips than older generations

• Study in Germany that found:
  - Since 1997, daily km of car travel for youth (18–29) dropped by over 20%
  - Km of public transport use of youth (18–29) almost doubled since 1997
  - Stagnant proportion of youth getting driver licence
  - Since 2000 number of registered cars per 1000 for youth dropping – but this may not represent access to cars (e.g. use parents’ car)
  - travelling further for tourism and also less use of car but increased use of air
  - Gender gap in driving reducing

• Possible causes of trends:
  - delayed start to professional career meaning lower income
  - real income loss 1998 – 2008
  - higher petrol prices (combined with lower incomes)
  - Lower PT fare increases and student discounts could be encouraging PT
  - Policies that discourage driving along with improved PT services
  - ICT but hard to know its impact

- Study of Dutch youth found that:
  - Reduced travel overall (unlike German where reduced car trips but not reduced travel)
  - More youth in education and less in employment
  - More urbanised
  - More mobility for leisure and education and less for work, social activities and shopping
  - Decrease in licences and owning car for young men but increase for young women
  - More young women working (but may have hit ceiling) yet overall decline in youth labour participation
  - Not enough information to see links between internet or attitudes, including status of car, and travel behaviour
American young (16-36) reduced average per capital miles 23% between 2001 and 2009, fewer are getting licences, and are doing more walking, cycling and PT.

Reasons for less car travel include:
- higher petrol prices
- new licensing laws
- technology innovations that support alternative transport (e.g. making PT information more available, opened up car and bike sharing schemes)
- changes in preference and values of young
- more likely to live in compact areas
- less employment after recession (but employed and higher income houses still travelling less)
Population statistics: Population growth and decline

- UN population projections medium fertility* (and based on UN regions)
- Rate of population declining across world
- More developed regions entering negative population growth as a whole between 2050 and 2055
  - Europe – negative growth around 2020
  - Asia and Latin America – entering negative growth by 2060-2065
  - North America, Australia and New Zealand approaching 0 growth rates by 2100
- Least developed region has positive growth but reducing from between 2 and 2.5% to around 0.5% by 2100
  - Africa has a similar pattern (although reducing from over 2.5%)

* The UN produces high (an extra half child per woman compared to medium), medium (based on 2.53 children per women in 2005-2010 and declining based on current trends) and low (a half child less per woman compared to medium) fertility projections
Average annual rate of population change by development status, 1950-2100 (percentage)
Average annual rate of population change by major area, 1950-2100 (percentage)
Population statistics: population structure

- Based on OECD data 2002-2012 and UN population projections 2015 – 2100
- Youth (<30 years) are declining in proportion of population across sampled countries to around 30% of population on average
- 60+ population is increasing to between 30 and 40% of population
- Youth decline is less than 60+ increase so middle group (30-60 years) is getting squeezed
Population structure change (using % of total population) from 2002 to 2100 based on OECD data (2002-2012) and UN projections (2015-2100) – medium fertility

<table>
<thead>
<tr>
<th>Area</th>
<th>60+</th>
<th>Youth (&lt;30)</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Japan and Korea</td>
<td>Increasing to over 40%</td>
<td>Decreasing to less than 30%</td>
<td>Korea has increase in 60+ from 18-42% and decline in youth of &gt;40% to &lt; 30%</td>
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<tr>
<td>Canada and USA</td>
<td>Increasing from about 20% to just over 30%</td>
<td>Declining from around 40% to just over 30%</td>
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<tr>
<td>Europe*</td>
<td>Increasing from around 20% to around 35%</td>
<td>Reducing from about 40% to just over 30% with a dip in share during 2030s</td>
<td>More often decline in 15-24 group than 25-29</td>
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<td>Australia and New Zealand</td>
<td>Doubles in Australia and nearly doubles in NZ to around 35%</td>
<td>Declines only a couple of percentage points</td>
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*based on sample of Czech Republic, Finland, Norway, Poland, Slovenia, UK,
Population statistics: Urbanisation

• UN statistics on rate of urbanisation 1980-2050 (medium fertility)
• Currently urbanisation increasing everywhere, but more developed countries rate of change <0.5% by 2020 and proportion of population urbanised greater than 80%
• Least developed countries rate of urbanisation about 3.75% declining to about 2.5% by 2050 while proportion of population urbanised doubling from around 25% to around 50%
• Sample of member countries also found:
  - Currently China, Turkey and India have growth rates between 2 and 3 % while other countries <2%
  - All sample countries growth rates less than 1% by 2025 except for India
  - China and India have biggest movements in proportion of population urbanised from 36-77% and 28-52% respectively
  - Russia has an increasing proportion of population in urban areas, but a negative rate of urbanisation. This is caused by an even higher rate of decline in total population
Rate of change and proportion of population in urban areas 2000-2050