

Young drivers and effects from graduated driving license



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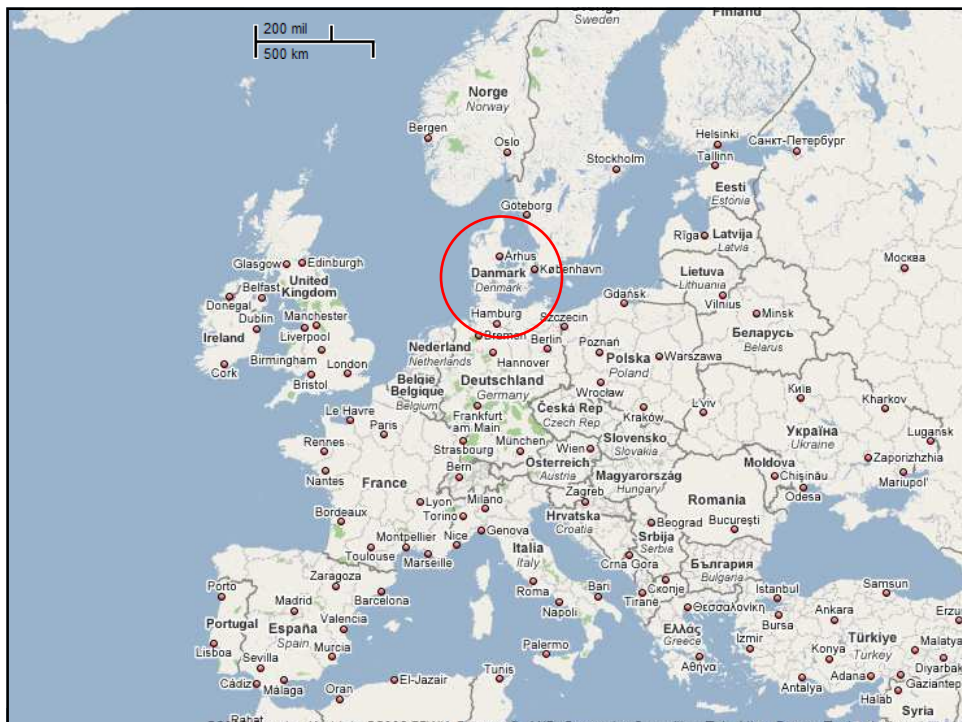


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Agenda

- Brief about Denmark
- Experiences with graduated driving license

Denmark in short



Denmark and person road transport

- 5.6 million inhabitants
- 43,000 km²
- Road network:
 - State: 3,800 km (1,022 km freeway)
 - Municipalities: 68,600 km
- Personal transportation:
 - 0.4 personal car/inhabitant
 - 2nd highest cyclist share in the world
- Car driving licence from 18 years old



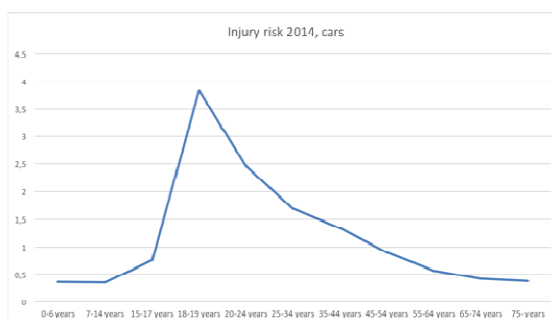
Fatalities in Denmark

- The fatality rate (all fatalities) has decreased significant the last 5 years
- 407 (2008) to 167 (2015)
- **1213 in 1971** 😞
- 29% of the fatalities were non-motorised road users: pedestrian: 17% ; cyclists: 12% (2010-2012)



Injured in Denmark

- 34,400 injured in total
- 12,100 injured in car (26% are single accidents)
- Car-bicycle is the 2nd biggest group
- Risk highly dependant of age
- Distribution in car use will even increase the imbalance



Driver licence in Denmark and background

- Yet car driving licence from 18 years old
- Problems with young unexperienced drivers:
 - Lack of experiences and overestimation of own skills
 - Risk appetite
 - Also:
 - age, gender, group behaviour and lifestyle
 - Image producing: visibility, status and control



Experiences with graduated driving license

What is graduated driving license?

- Traditional tests, theory and driving lessons etc.
- Required driving with co-driver
- Limitation in time (e.g. not in dark/Saturday night)
- Limitation in space (e.g. not on freeways)
- Limitation in passenger count and age
- Extra strict rules concerning BAC
- Various tests (theoretical, practical or psychological)



Sweden

Contents and steps:

- Since 1993, From 16 years
- 1. Traditional education with driving instructor etc.
- 2. Driving with companion (≥ 25 years and 5 years of driving without penalties)
- 3. Full driver licence at 18 years old

Effects compared to traditional driver education:

- 40% lower accident if initiated at 16 years
- 24% lower accident if initiated at 17.5 years



Germany – first Lower Saxony, then the rest

Contents and steps:

- Since 2004, From 16,5 years
- 1. Traditional education with driving instructor etc. from 16,5 years
- 2. Driving with companion (≥ 30 years and 5 years with driving licence); (recommended 3-5000 km and additional course)
- 3. Full driving licence at 18 years old

Effects compared to traditional driver education:

- 22% lower accident risk
- 20% lower number of traffic violations



France

Contents and steps:

- From 16 years
- 1. Traditional education with driving instructor including 20 hours and a theoretical test
- 2. Declaration from driving instructor
- 3. Driving with companion (≥ 28 years; $\geq 3,000$ km)
- 4. Two additional interviews with driving instructors
- 5. Full driving licence at 18 years

Effects compared to traditional driver education:

- Unclear effect



Austria

Contents and steps:

- Since 1999 (step 1-3) and 2003 (step 2), From 17 years
- 1. Traditional education with driving instructor (26 theory and 12 driving lessons).
- 2. Driving with companion ($\geq 3,000$ km)
- 3. Additional education
- 4. Feedback from driving instructor, technical practice and psychological discussions
- 5. Full driving licence at 18 years old

Effects compared to traditional driver education:

- 15% lower accident from step 1-3
- 30% lower accident and 34% less single accidents from step 4. – Especially positive effects for young novice male drivers

New Zealand

Contents and steps:

- Since 1987 (regarding 15-24 years) and from 1999 (regarding all drivers), From 15 years old

1. Theoretical test and eye test; Driving with companion (≥ 20 years and 2 years of driving) and $BAC < 0.03$

2. Driving test; no driving 22-05 and only passengers ≥ 20 years. These limitations are removed if a companion ≥ 20 years. (duration 18 months, but 9 if the young driver follows an additional course.)

From 1999: mainly longer periods in the steps

Effects compared to traditional driver education:

- Almost 50% lower accident although results are uncertain



USA I

Contents and steps:

- 37 states have introduced 3-step driving licence.
- 47 states have element of it
- Very different steps and contents from state to state
- Results from Florida, Michigan, North Carolina, Louisiana, California, Ohio and Pennsylvania only
- From 14.75 to 16 years old at beginning



USA II

Contents and steps:

1. 4-6 months; driving with companion at least 50 hours and 10 in dark (in 4 of 6 states); 6-12 months

2. Minimum 16-16.5 years. Single driving with restrictions (no dark driving) Some allow young passengers, some don't

Effects compared to traditional driver education:

- 9-25% lower accident rate

Canada

Contents and steps:

- 1994 and later in most Canada, 14-16 years

1. Theory test; Parent's permission; driving with companion (various demands); BAC=0; no night driving, limitation in passengers: 6-12 months and minimum 16-16.75 years old

2. Driving test

3. Driving alone, but similar limitations; 12-24 months

Effects compared to traditional driver education:

- 13-24% lower accident rate in various states
- Best effect from step 1

Australia

Contents and steps:

- 15.75-16.5 years
- 1.Theoretical and eye test
- 2.Companion driver required; low BAC level; speed limitation; no trailer driving; no freeway driving
- Various age for a full driving license

Effects compared to traditional driver education:

- Differ from state to state
- Up to 31% lower risk of serious accident
- 58% lower risk of serious accident with >1 person in the car
- 4% overall reduction in

Graduated driving license – results I

- Mainly adjusted from existing regulation
- Often not logical connections between steps
- Each country/state - each composition
- General positive safety effect

Graduated driving license – results II

- From 13 to 58% reduced accident risk
- Better driving behaviour
- Various measures – various effects
- Often effect from mixed measures
- Often concurrently with other traffic safety improvements
– i.e. the safety effect might be overestimated in some cases

Thank You 😊

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