



National Technical University of Athens
Road Safety Observatory

www.nrso.ntua.gr

Monday
15
May
at 14:00

Workshop

in the framework of the

FOURTH UNITED NATIONS GLOBAL ROAD SAFETY
WEEK

8-14 May 2017



Save Lives
#SlowDown

The future of road safety research

NTUA Zografou Campus, Athens

Railways Amphitheatre of the

Department of Transportation Planning and Engineering

Monitoring road safety culture
in Europe
SafeCulture

Alexandra Laiou

Civil - Transportation Engineer, MSc
Research Associate

Website: www.nrso.ntua.gr/alaiou

e-mail: alaiou@central.ntua.gr

Together with:
George Yannis

The SafeCulture project



SafeCulture - ***Safety culture in private and professional transport: examining its influence on behaviours and implications for interventions***

Aims to compare the safety culture in different transport modes and social contexts between Norway and Greece.

Land transport: Comparison of car users, powered two-wheelers, HGV and bus drivers.

Funded under the “Transport 2025” program of the Norwegian Research Council.

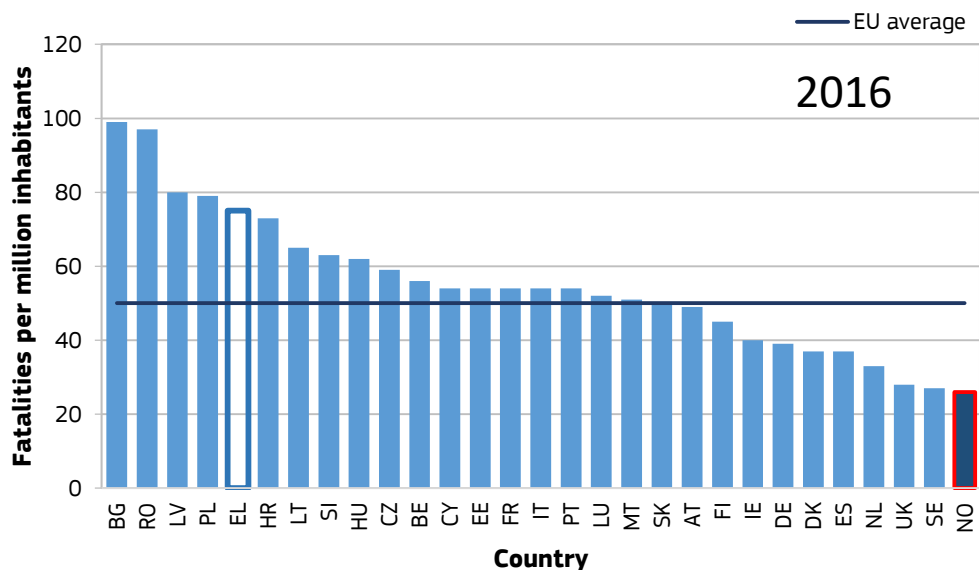


Duration: 36 months (Jan 2016 – Dec 2018)

Partners:  Institute of Transport Economics
Norwegian Centre for Transport Research



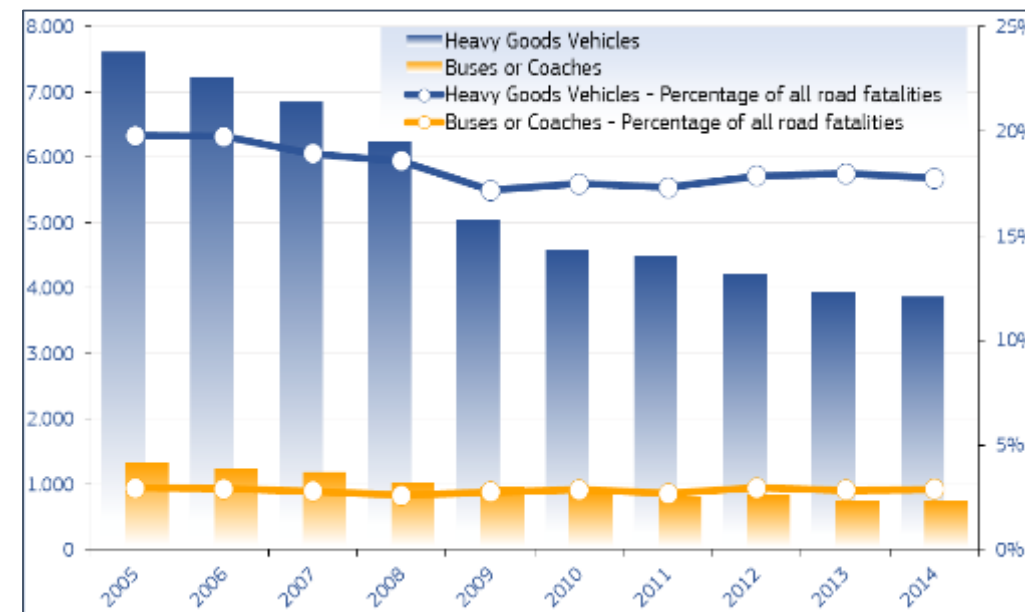
Key road safety facts: Greece - Norway



Fatalities per transport mode	Average annual change 2001-2015		Share in 2015		EU average (2015)
	Greece	Norway	Greece	Norway	
Car occupants	-6%	-6%	40%	57%	45%
Motorcyclists	-4%	-2%	30%	17%	15%
Mopeds	-6%	-11%	4%	1%	3%
Bus/coach occupants	-2%	-8%	0%	1%	0%
Lorries/truck occupants	-6%	-6%	7%	7%	5%

Norway and Greece were selected to be compared since their road safety status **differ significantly**.

The number of fatalities in accidents involving HGVs and buses/coaches in EU fell by nearly 50% between 2005 and 2014. However, the percentage of fatalities in accidents involving **HGVs and buses or coaches didn't decrease** considerably.



Safety culture in transport

- The concept of safety culture is applied to an increasing range of sectors, including **professional and private transport**.
- Safety culture explains **considerable variation** in safety behaviour in various transport forms operated by private and professional drivers.
- Transport safety culture (TSC) is defined as: “**shared norms** prescribing certain transport safety behaviours, **shared expectations** regarding the behaviours of others and **shared values** signifying what’s important (e.g. safety, mobility, respect, politeness)”.



Research questions

- How much does **membership in different sociocultural units** (e.g. nation, region, peer-groups, sector, organizations) influence individual transport safety behaviour in professional and private transport?
- How much does TSC influence safety behaviour and outcomes relative to **known risk factors** like gender, age, experience, technology and infrastructure?
- How can the knowledge on group membership influencing TSC and the relative importance of TSC as a **predictor** of transport safety **behaviour** and safety **outcomes** be used to increase transport safety?



Main findings - overall

- There is a relationship between national transport safety **culture**, transport safety **behaviour** and **accident involvement**.
- Aggressive violations are **predicted** by national transport safety culture (e.g. Bus drivers in Greece report more aggressive violations in traffic than Norwegian bus drivers) and **predict** accident involvement.
- **Organizational** safety culture contributes **negatively** to **aggressive** transport safety behaviours, meaning that a positive organizational safety culture may reduce aggressive violations in traffic.



Main findings - speed



Save Lives
#SlowDown

- Professional drivers generally drive at **speeds lower than the speed limits** not necessarily by choice but also due to technical restrictions (e.g. tachograph, difficult urban environments). They admit speeding up while driving on the highway.
- Choosing speed depends on the **pressure** upon the driver for a delivery, from a client or from the management. Avoiding speed violations and tickets in fear of losing their jobs is also common.
- Professional bus drivers consider **speeding and speed limits** the most common factors for aggressive driving and for the violation of the Traffic Code and disrespect towards other drivers respectively.



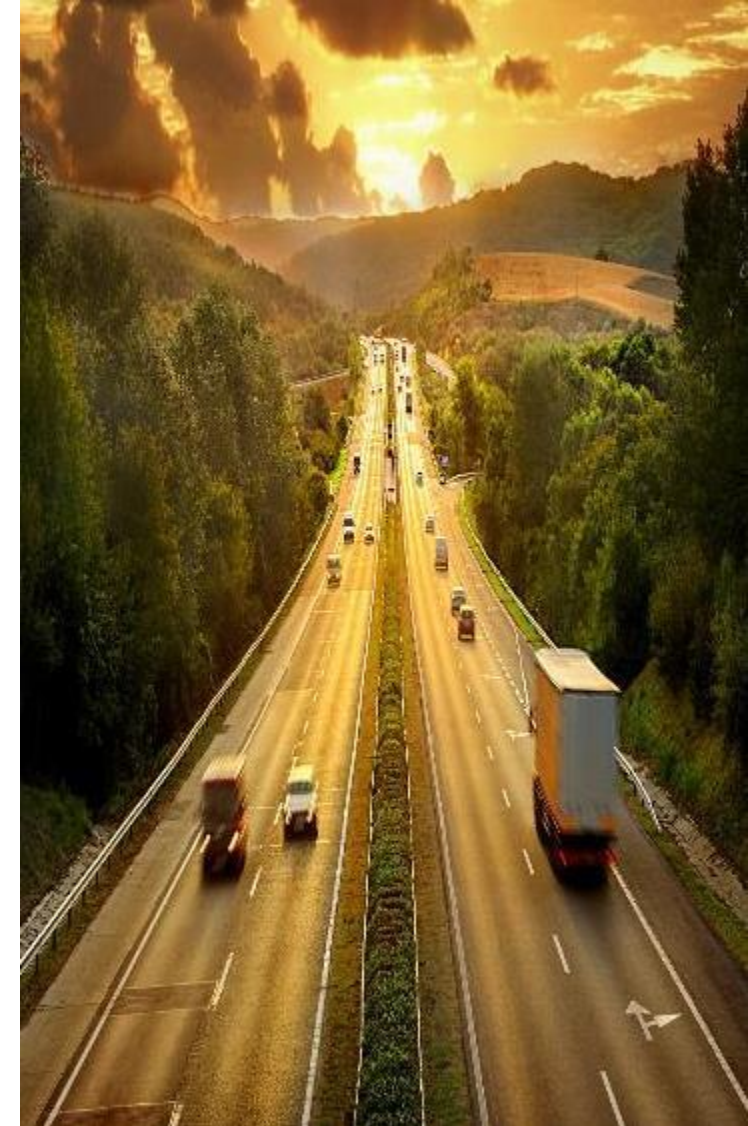
Next steps

- Study safety culture, actual safety behaviour and safety relevant outcomes (accidents, incidents) among **private car and PTW drivers** in Norway and Greece.
- Sample stratified according to region (i.e. islands). The **Greek islands** may provide a “natural experiment” with respect to the development of a safety culture through interaction of locals and tourists.
- The hypothesis will be that on touristic areas the **interaction between tourists** in rental cars and PTW and the Greek driving population will result in a different traffic culture than in the usual Greek traffic.



Future challenges

- The **importance** of transport safety culture (TSC) in understanding and influencing transport safety behaviour and safety outcomes is very high (as it is in hazardous industries) and more quantitative research is needed.
- **Linking quantified metrics of TSC with road safety metrics** (performance indicators and outcomes) is a great challenge, which might reveal important hidden parameters influencing road safety.
- There is need to study large driver samples and different nationalities in order to identify links between road safety and **organizational and tourist safety culture** across Europe.





National Technical University of Athens
Road Safety Observatory

www.nrso.ntua.gr

Monday
15
May
at 14:00

Workshop

in the framework of the

FOURTH UNITED NATIONS GLOBAL ROAD SAFETY
WEEK

8-14 May 2017



Save Lives
#SlowDown

The future of road safety research

NTUA Zografou Campus, Athens

Railways Amphitheatre of the

Department of Transportation Planning and Engineering

Monitoring road safety culture
in Europe
SafeCulture

Alexandra Laiou

Civil - Transportation Engineer, MSc
Research Associate

Website: www.nrso.ntua.gr/alaiou

e-mail: alaiou@central.ntua.gr

Together with:
George Yannis