

Vision Zero

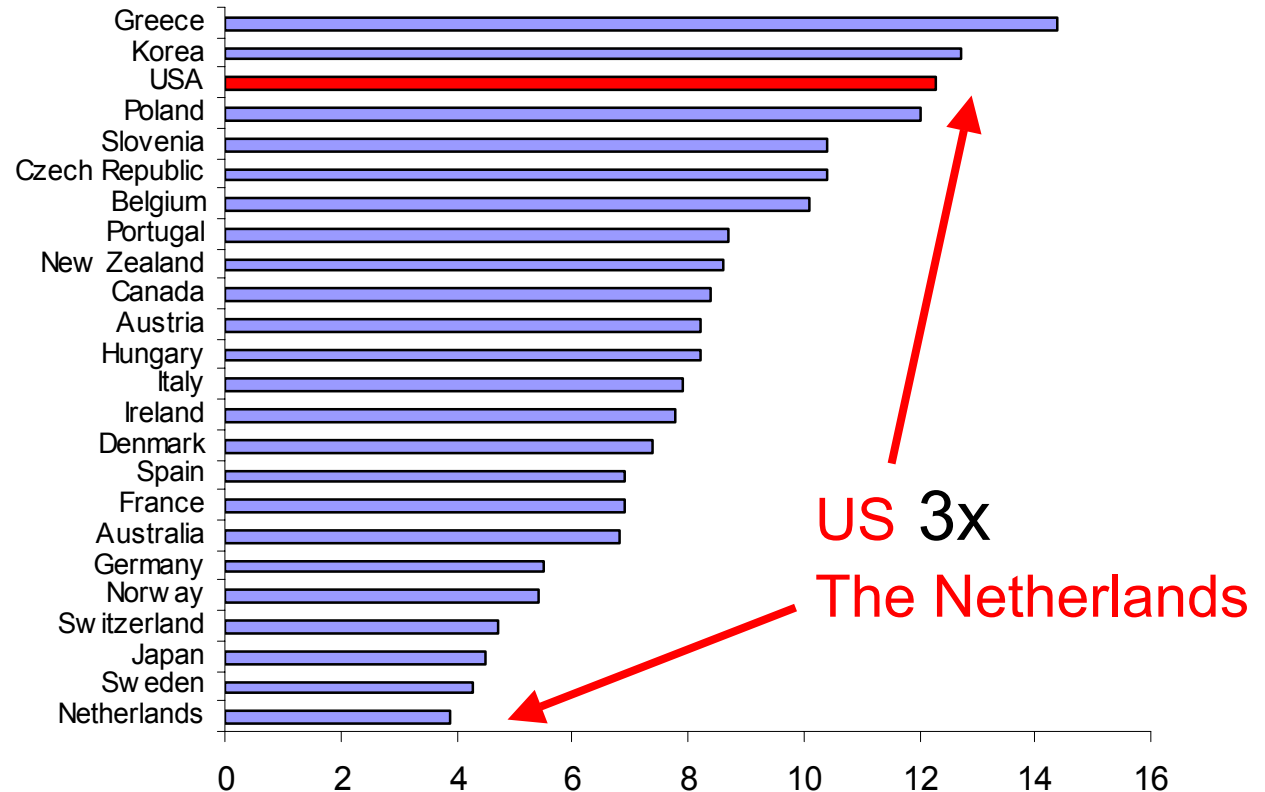
Towards Zero Traffic Deaths

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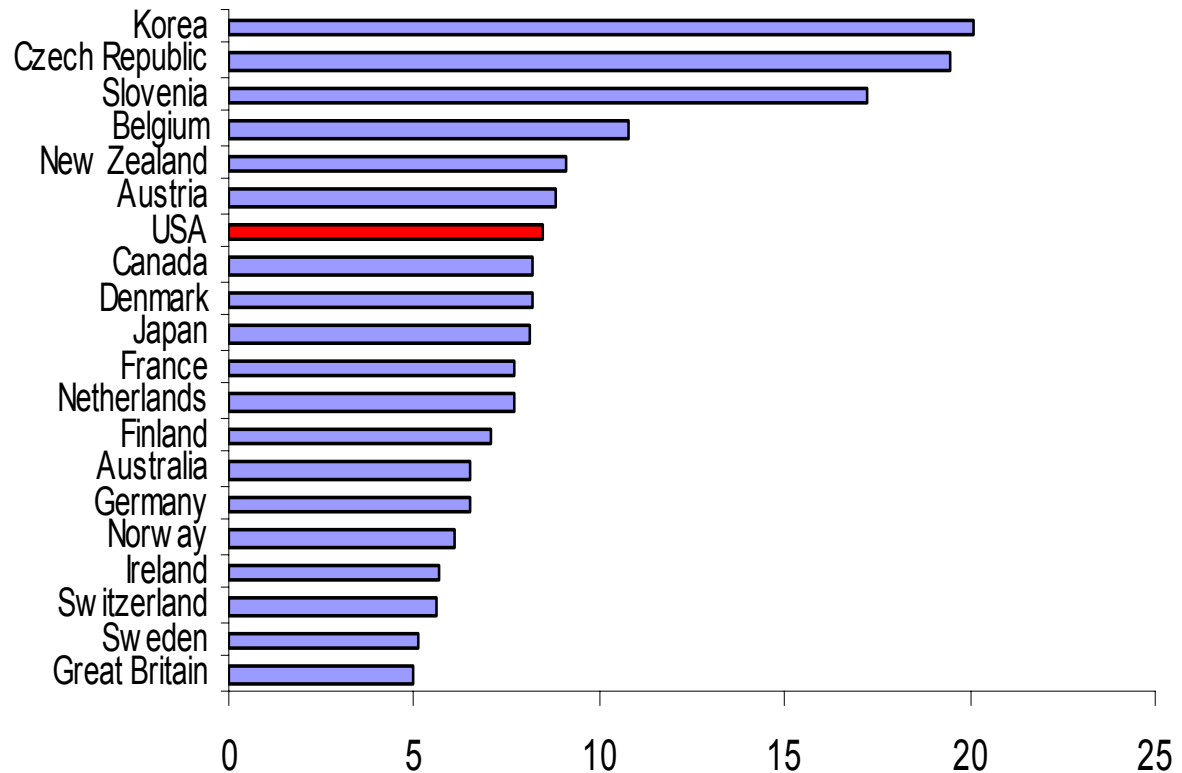
US has
highest
number
of road
deaths
per capita

Road Deaths per 100,000 Population in 2008

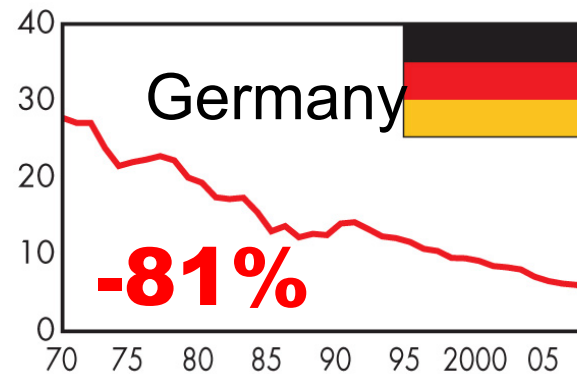
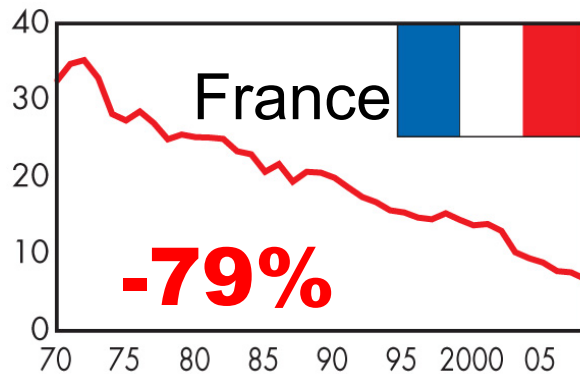
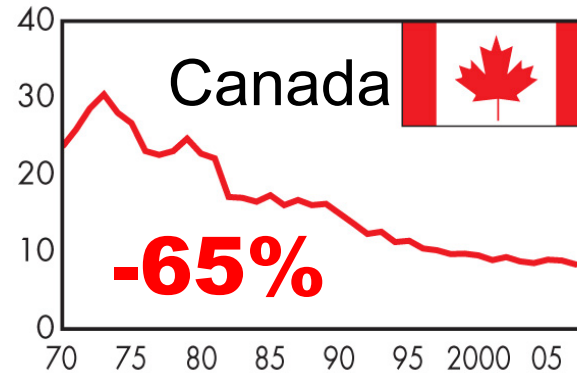
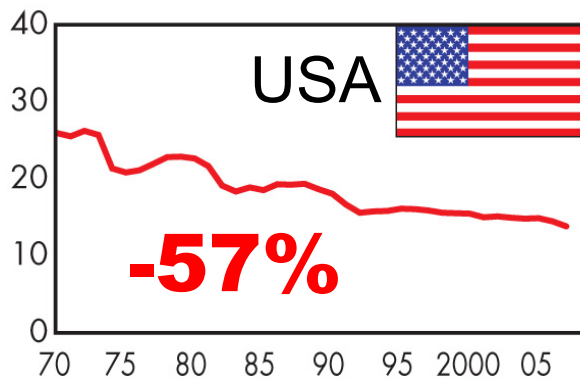


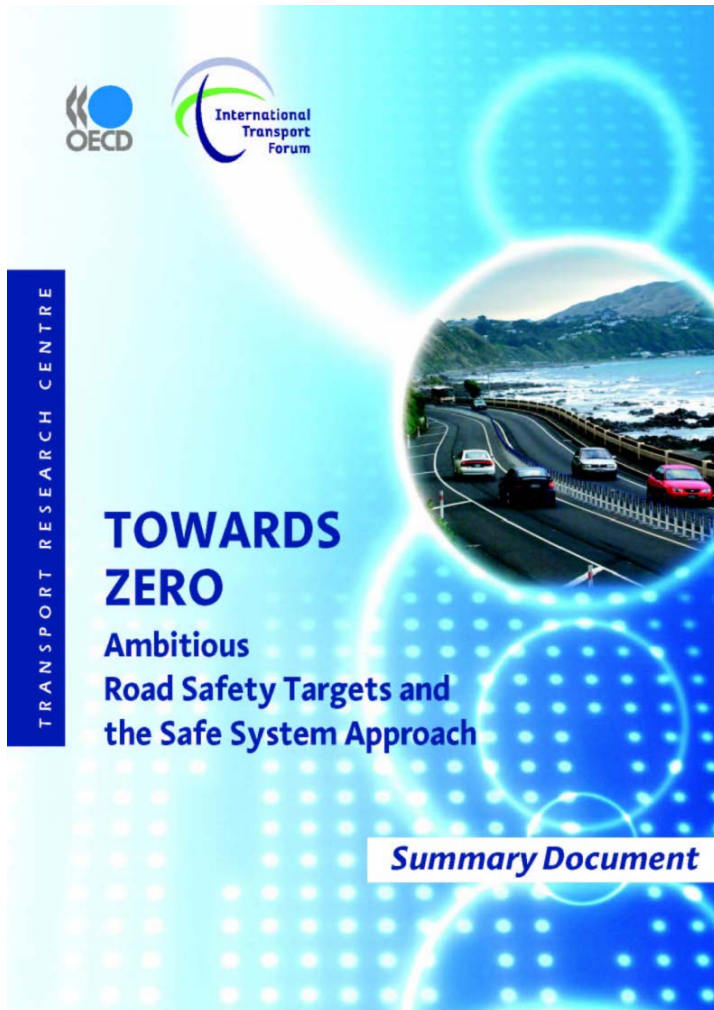
US is
14th in road
deaths per
distance

Road Deaths per distance 2008



Reducing Fatalities





Vision Zero

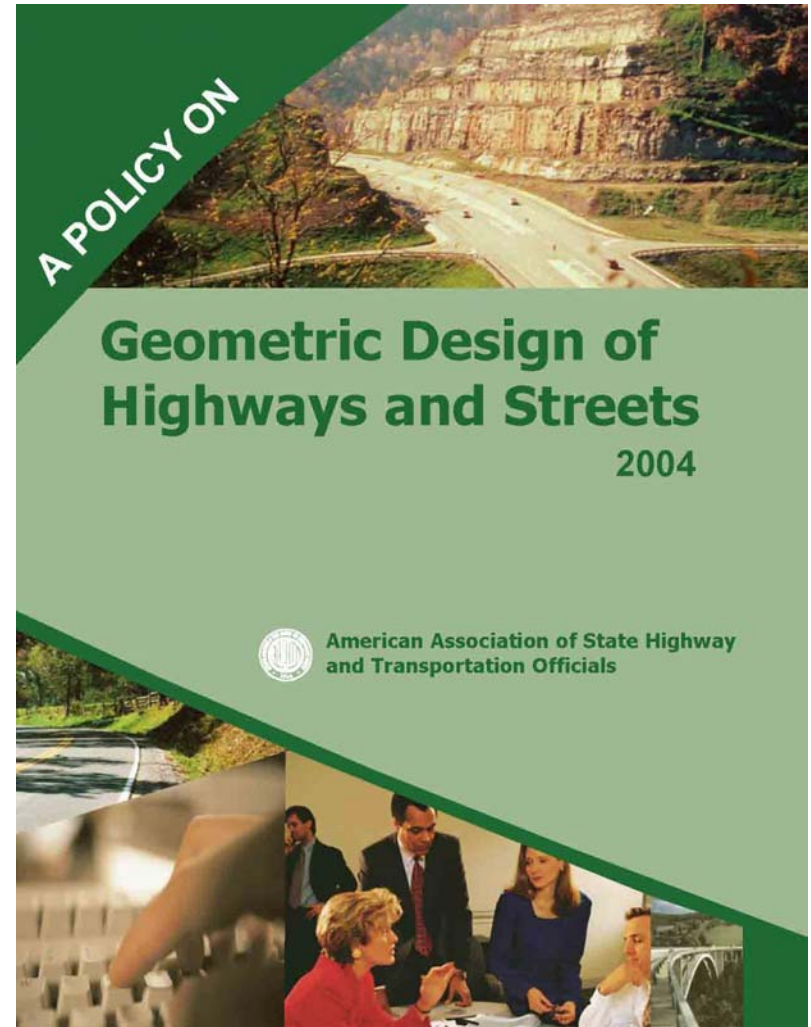
The Ethical Choice

Zero fatalities and
zero severe injuries

- ✓ Other transport
- ✓ Occupational

Traditional Safety Approach

“every effort should be made to use as high a design speed as practical to attain a desired degree of safety” (page 67)





Traditional
Safety Approach:
Forgiving design

- Increase space
- Increases speeds
and severe injuries

What is Safety?

Traditional measure

Damage—

- Crashes
- Money



What is Safety?

Vision Zero

Measures health—

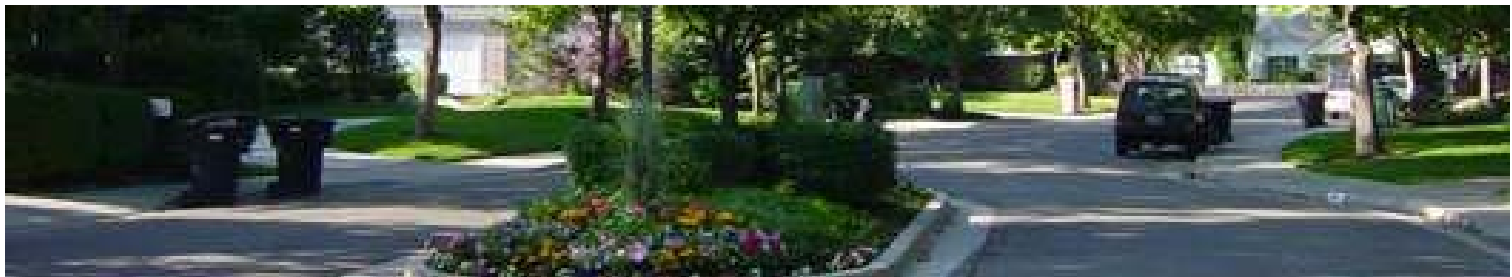
- Deaths
- Disabling injuries



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The ethical imperative

“It can never be ethically acceptable that people are killed or seriously injured when moving within the road transport system.”



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The ethical imperative

Preserving **life** is an
absolute requirement

Life can never be
traded for another
societal benefit such
as convenience





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The ethical imperative

Major shift in focus from:

- Reducing crashes...
- To eliminating *fatal* and *disabling* crashes

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The ethical imperative

Health goal is changed from
“What *can* we do?” to
“What *must* we do?”



Responsibility: Traditionally, the individual



Responsibility: Vision Zero

Road designers ultimately responsible for safety



Responsibility: Vision Zero

Designers
responsible for
safety of road:

- Design
- Operation
- Use



Responsibility: Vision Zero

Road users responsible
for following the rules set
by designers



Responsibility: Vision Zero

If road users fail to obey rules, whether due to lack of—

- Knowledge
- Acceptance
- Ability



Designers must
make necessary
modifications

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Manage kinetic
energy



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Manage
kinetic
energy



**If speeds are above 45 mph, use medians
to separate oncoming traffic**

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Manage
kinetic
energy



Keep speeds below 30 mph at intersections
by placing stop signs—*not* traffic signals

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**Roundabouts reduce speeds
and impact angle**



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**Keep speeds below 20 mph
if pedestrians or bicyclists present**





Vision Zero street

Contact

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Suggested Reading:

“Vision Zero—Implementing a policy for traffic safety”

Roger Johansson

***Safety Science* 47 (2008)**

pp. 826-831