

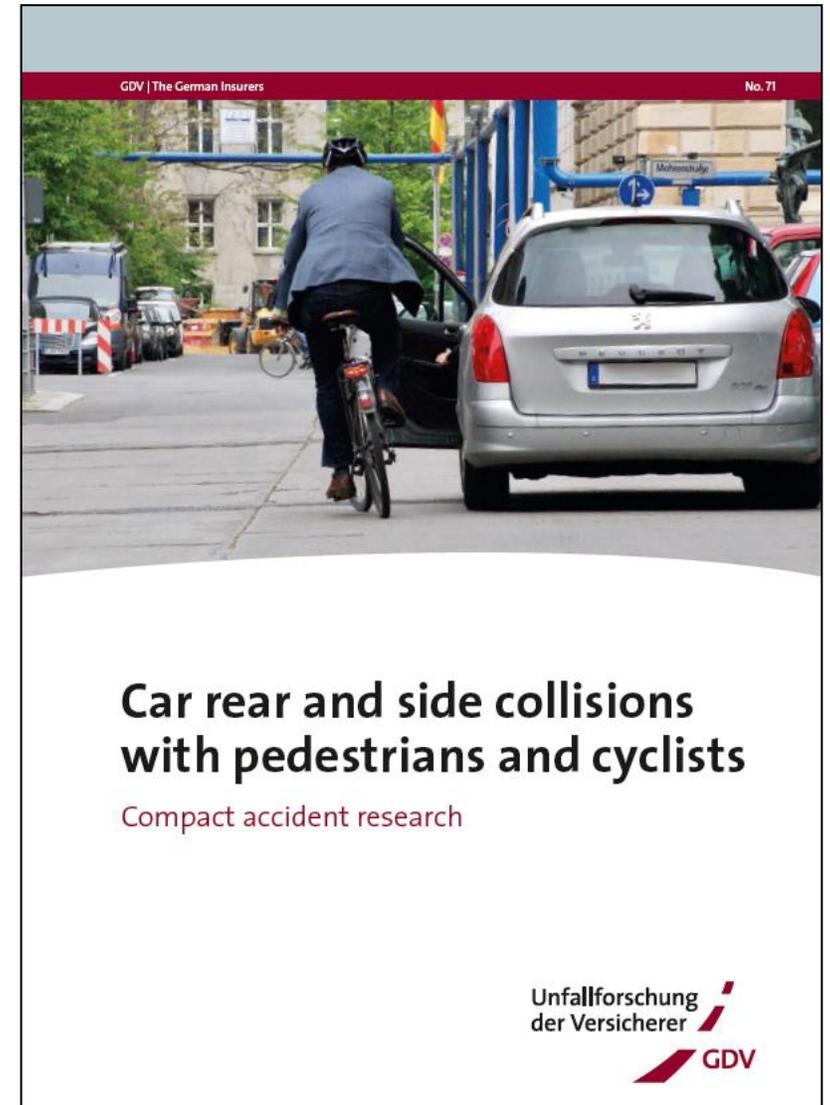
Reversing accidents with VRU

- Complementary results (age, run-over...)

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German Insurers Accident Research

Berlin, 15th of April 2019

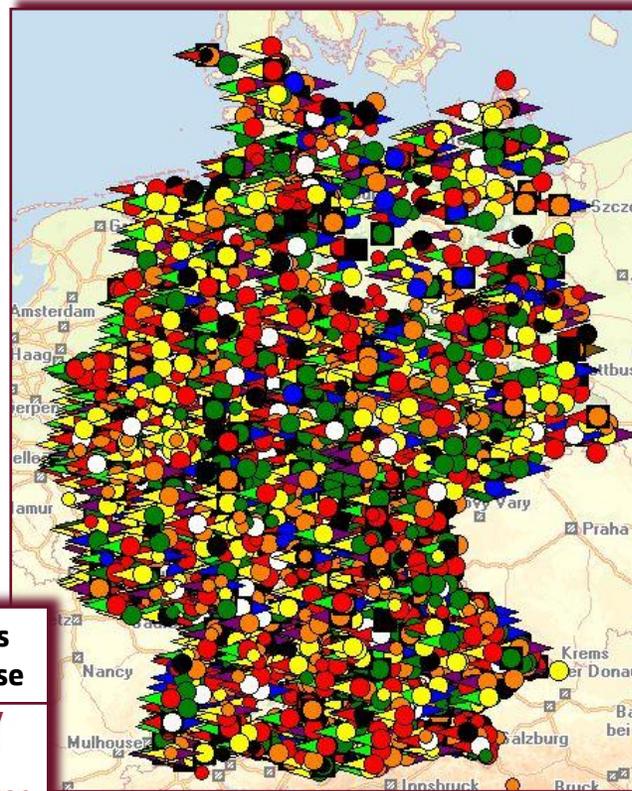


Data Set and Representativeness

- **Accident Database UDB:** representative for all third-party vehicle claims of the German Insurers
- **Only third-party vehicle claims involving personal injury and at least 15,000 € total claim value**
- **Data set with over 9,000 cases, continuously growing**
- **Analyses of vehicle related, infrastructural and behavioural topics**

German Insurers
Accident Database

Unfallforschung
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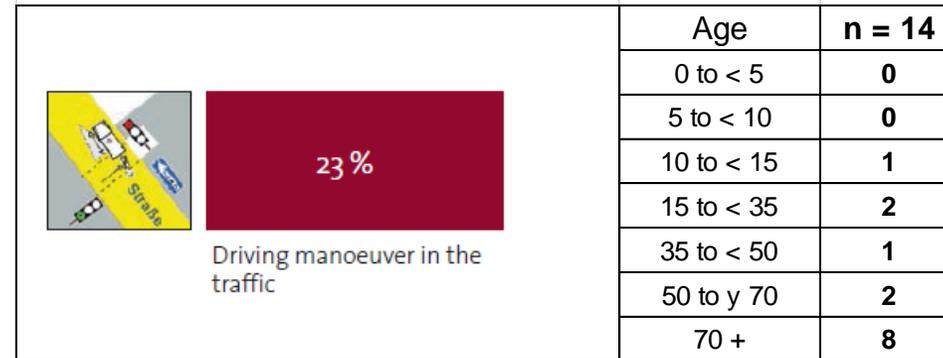
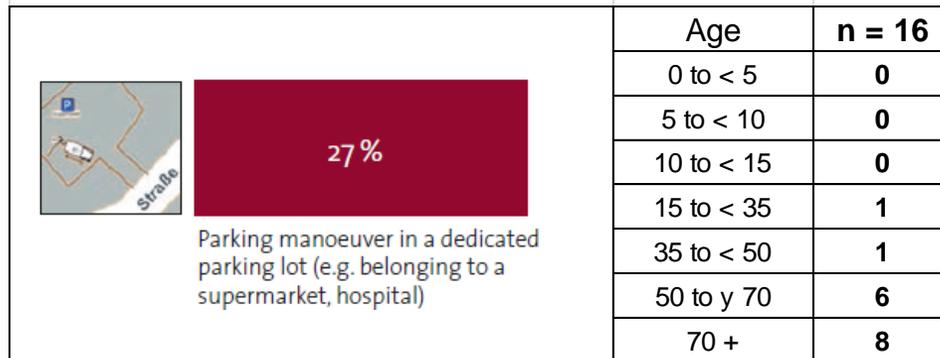
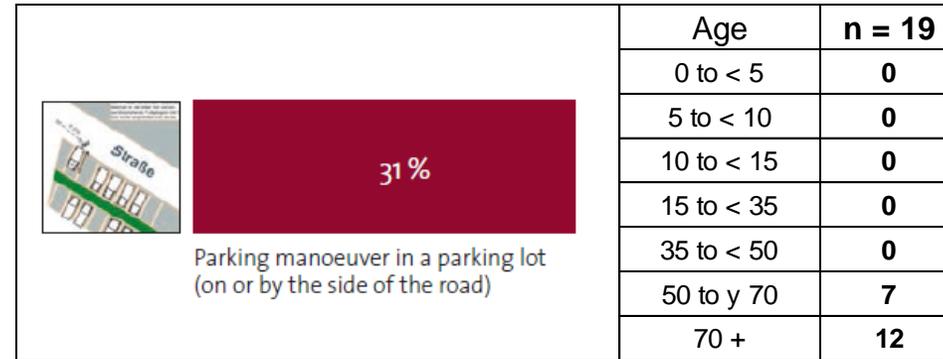
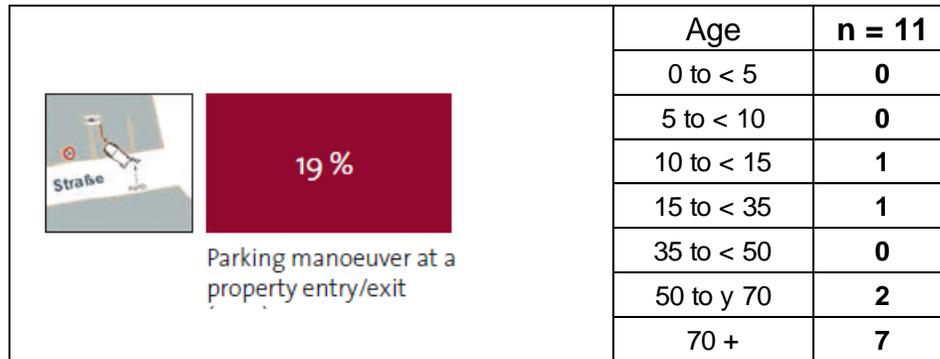
It should be remarked that following accidents are under-represented in our case material:

- accidents that occurred on private roads/properties or on industrial estates, i.e. accidents that did not occur on public roads.
- accidents involving refuse collection trucks (i.e. garbage trucks). These vehicles are not insured through the insurance companies that provide us with third party claims.



Casualties broken down by age bands

For each collision scenario, can the casualties be separated into age bands for all rear impacts and also for each manoeuvre outlined in Figure 4 in study?



All casualties	Age	n = 60
	0 to < 5	0
	5 to < 10	0
	10 to < 15	2
	15 to < 35	4
	35 to < 50	2
	50 to y 70	17
	70 +	35

In general, elderly pedestrians are dominating in reversing accidents; this can also be seen for the individual reversing scenarios.

Among all casualties, the youngest person was 11. y.o, the oldest one was 93 y.o.

Reversing run-over incidents with lying casualties

Does the UDB database contain information on reversing run-over incidents or rear impacts when the casualty was lying on the ground before being hit?

Reversing run-over incidents with lying casualties (/pedestrians/cyclists) did not occur in our analysis.

However, the overall accident occurrence includes a few cases at darkness in a rural area where the pedestrian was run-over by the car as he was lying drunk on the road. In some other few cases, the pedestrian was over-run on a motorway by one or more cars while he was lying on the ground after he had been hit by another vehicle.

In general, car reversing accidents are more frequent among pedestrians (15% of all car impacts) than among cyclists (4% of all car impacts).

Reversing accidents with heavier/articulated vehicles

Does the UDB database contain data on pedestrian/cyclist collisions with reversing heavier vehicles (M2/M3/N2/N3 vehicle categories)?

- If so, would you also have information on the articulation status of the vehicle?**

Our analysis does not include any reversing accidents between M₂/M₃ vehicles and VRU. But it contains a few reversing accidents between N vehicles and pedestrians (n=17) or cyclists (n=3).

Pedestrians are more often affected by reversing impacts (25% of all truck vs. pedestrian impacts) than cyclists (4% of all truck vs. cyclist impacts).

In reversing accidents with pedestrians, the most frequent vehicle categories were N₁ (n=7) and N₂ solo trucks (n=7). There were also three N₃ trucks involved. Two of these vehicles were articulated trucks.