

Changing rural speed limits

Learning from the past

IPENZ Transportation Conference
Friday 31 March 2017

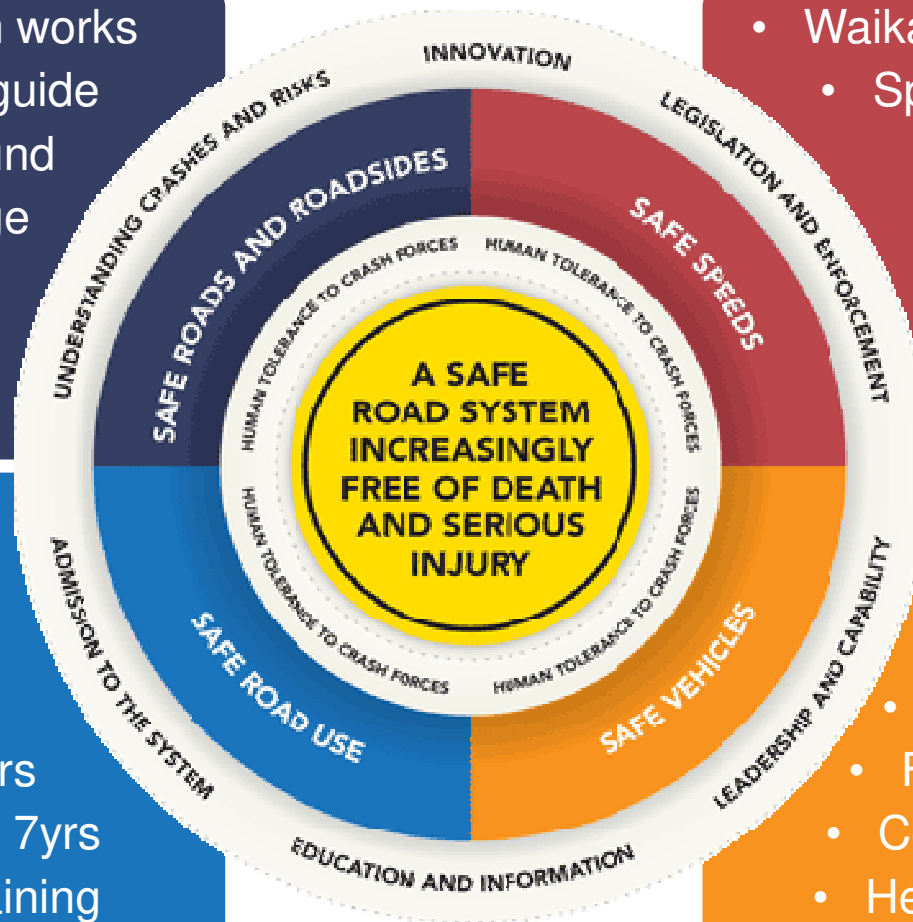
Dr Glen Koorey, ViaStrada Ltd
& Bill Frith, Opus Research



Road safety this decade

- High-Risk Intersect'n works
- High-Risk Rural Rd guide
- Urban Cycleways Fund
- Give Way rule change
- Safe Roads Alliance
- RONS 4-star roads
- Urban KiwiRAP

- Visiting drivers
- Lower BAC limits
- Alcohol interlocks
- Cycle skills training
- Min. licence age 16yrs
- Child restraints up to 7yrs
- Motorcycle safety training



- Waikato demonstrat'n project
- Speed Mngm't Guidelines

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⋮
⋮
???

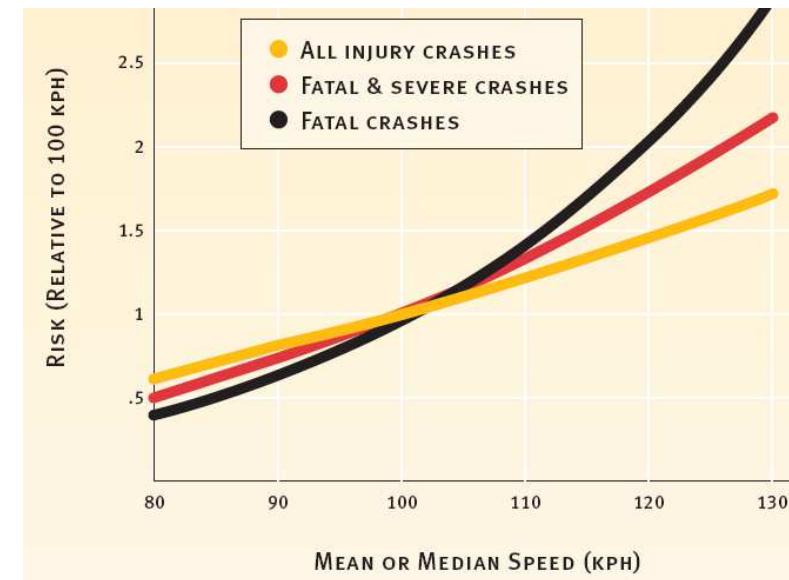
- ESC mandated
- In-veh technologies
- Veh Standards Map
- ACC veh levy changes
- Fleet Safety Programme
- Consumer veh safety info
- Heavy veh safety systems

Where is the evidence on reducing speeds?

- Plenty of international research on safety effects of speed
- For every 10 km/h posted speed limit reduction, typically we observe a **2-3 km/h** reduction in mean speeds

*(NB: 1% speed reduction
= -2% crashes & -4% fatalities)*

- Could add some additional traffic mgmt to get the speeds down a bit more



Nilsson (2004)

But do New Zealanders believe it?

Council to review new speed limit

TRACEY CHATTERTON

Last updated 05:00 05/11/2014



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Opinion poll

What should the speed limit for recently changed rural roads in Hastings be?

- 80kmh, the slower speed is saving lives
- 80kmh, the benefits outweigh the 10-15 min delay
- 100kmh, faster speed makes no difference to crash rates
- 100kmh, the current 80kmh speed is actually worse because people are passing more dangerously

A public outcry over speed-limit reductions in rural roads forced the council to reconsider, but police say the changes are saving lives.

The Hastings District Council reduced the speed limit on 100 kilometres of rural roads from 100kmh to 80kmh.

But motorists spoke out against the change, which was over the top. As complaints piled up, the council reversed its decision and gave people a chance to have their say.

The council received about 300 submissions, and a public consultation panel research.

"Driving mile after mile of country road at 80kmh is causing frustration and making criminals of otherwise law-abiding drivers"



80kmh, the slower speed is saving lives

22 votes, 18.2%

80kmh, the benefits outweigh the 10-15 min delay

24 votes, 19.8%

100kmh, faster speed makes no difference to crash rates

25 votes, 20.7%

100kmh, the current 80kmh speed is actually worse because people are passing more dangerously

50 votes, 41.3%

Political resistance to lower speeds

No evidence speeding tickets save lives, says United Future leader Peter Dunne

ROSANNA PRICE
Last updated 12:34, July 4 2016



Judith Collins says strict speed limits will lead to speedometer watching and distractions



"I don't really think in the grand scheme of things the fact that I was doing 5k over the speed limit's a massive issue"

"Issues like vehicle design, road design, better education about the way we drive, don't seem to be getting nearly the same prominent focus that the speed issue is getting"



ce don't have data on number of lives saved by issuing tickets to safer roads.
Zealand Police has no evidence on whether speeding tickets save lives, says United Future leader Peter Dunne.
Police argue there is well-documented research linking speed and road trauma.

Police Minister Judith Collins doesn't see the need to lower the speed limit.

Police ticketing drivers travelling only a few kilometres over the speed limit.
...lower the road toll because drivers glued to the speedometer will be distracted from the road.
... Minister Judith Collins.
... eleven per

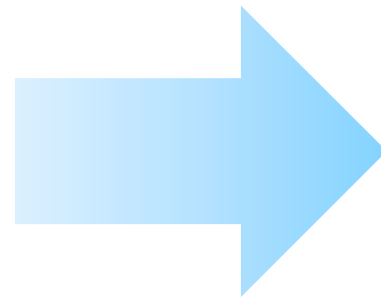
We don't need to look far for case studies...

1973



Dec 1973: NZ Government's response

- Slower speeds = better fuel economy so ...
- 55 mph (88 km/h) became 50 mph (80 km/h) on rural roads



Speeds creep up...

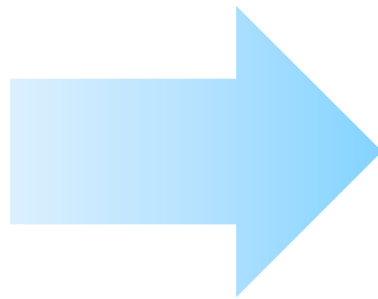
1985

- Better cars
- Better roads?



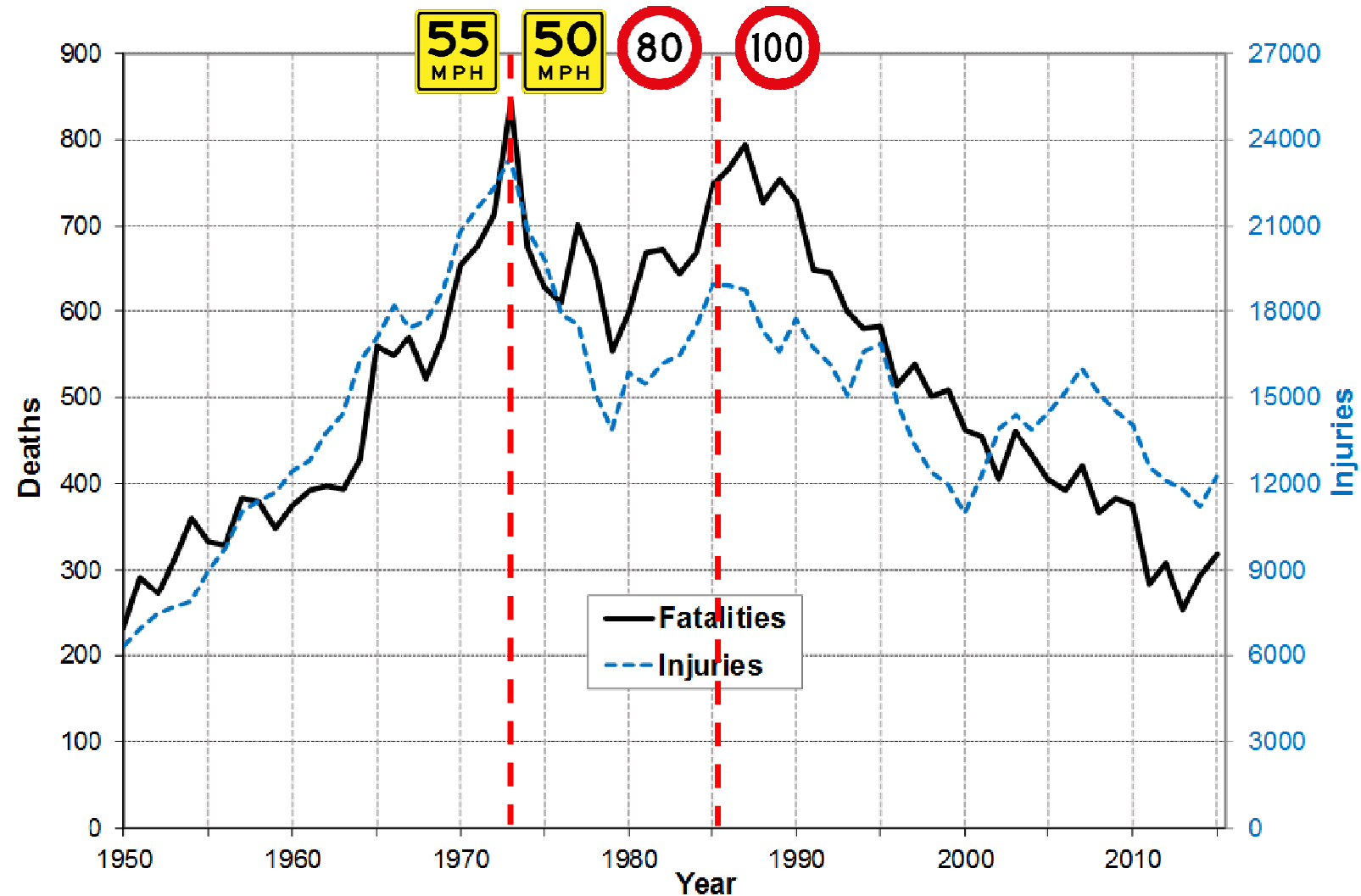
Jul 1985: NZ Government's response

- Prevailing speeds had increased
- Government raises speed limit to match



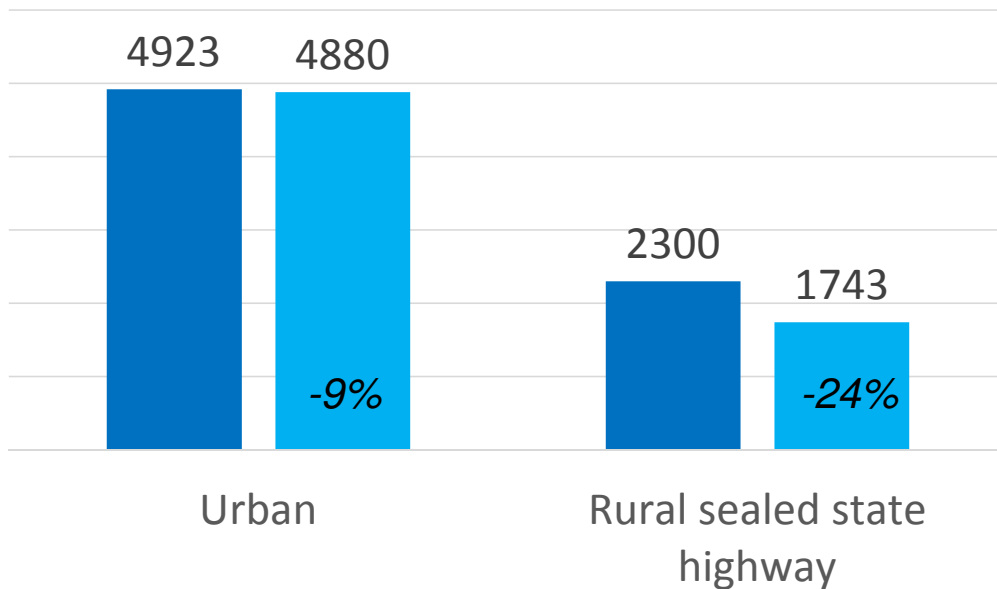
Analysing historical data

- Raw data has limitations
 - Rural vs urban?
 - Observed speeds?
 - Traffic volumes?
 - Other safety initiatives?

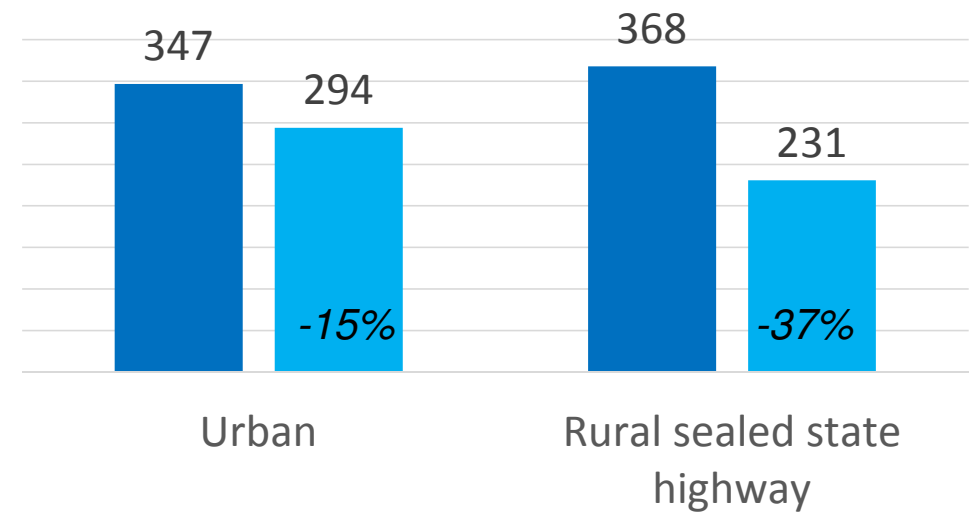


1973: One year before vs after

SERIOUS CASUALTIES



FATAL CASUALTIES

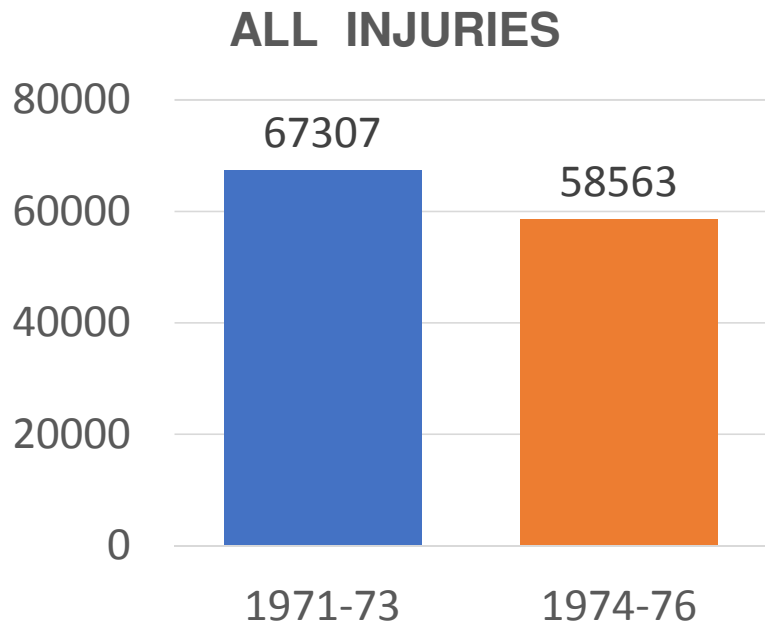


Largest decrease is in rural fatalities

-37.2%

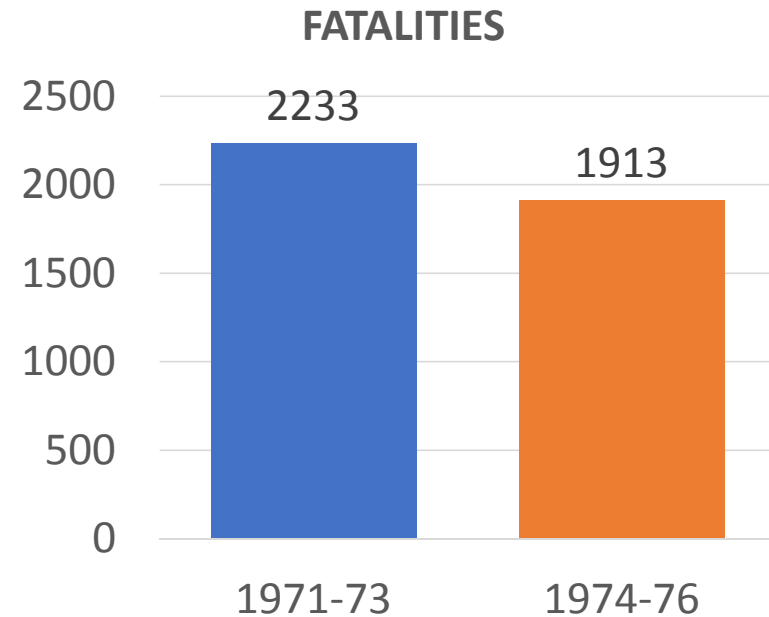
■ Before
■ After

1973: Effect on all roads 3-years before/after



-13.0%

decrease in injuries



-14.3%

decrease in fatalities

1973 – Other effects and initiatives

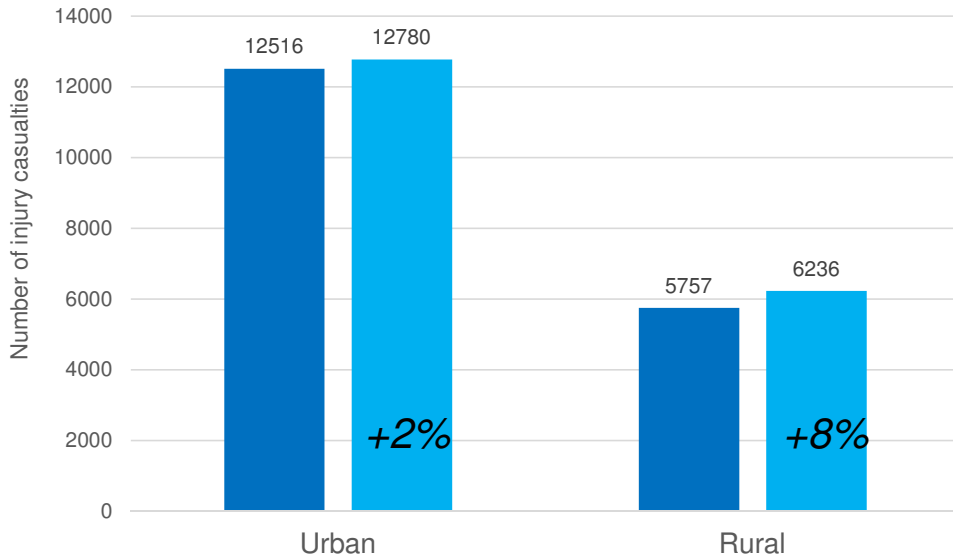
- Initial >6 km/h speed drop gradually crept back to ~3 km/h
- Rural traffic volumes flattened → no effect on crash rates
- 1972 – limited seat belt law, extended in 1975 (-5% of toll?)
- 1973 – motorbike helmets mandatory (-4%?)
- Other initiatives had a lesser influence

Reduced speed limit had major impact

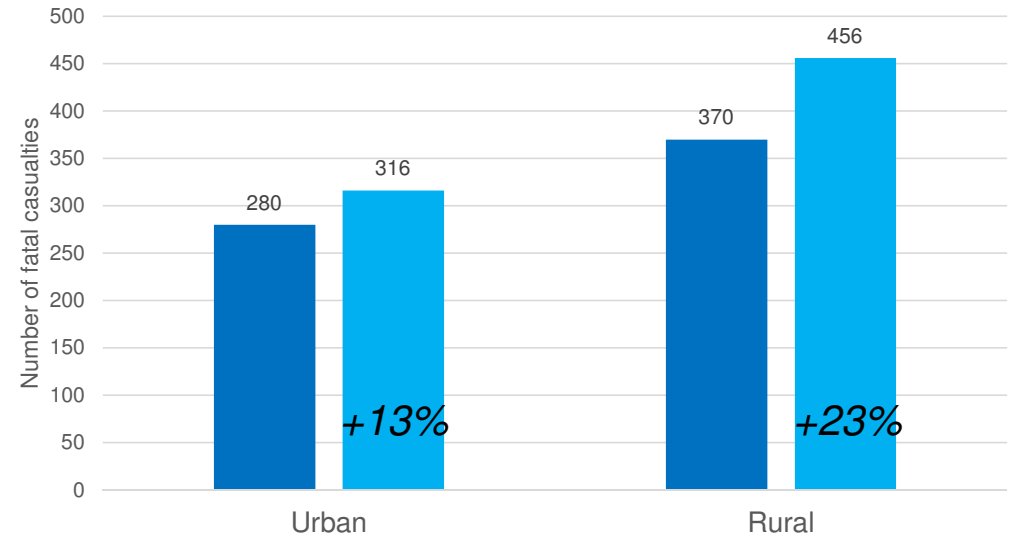


1985: One year before vs after

INJURY CASUALTIES



FATAL CASUALTIES

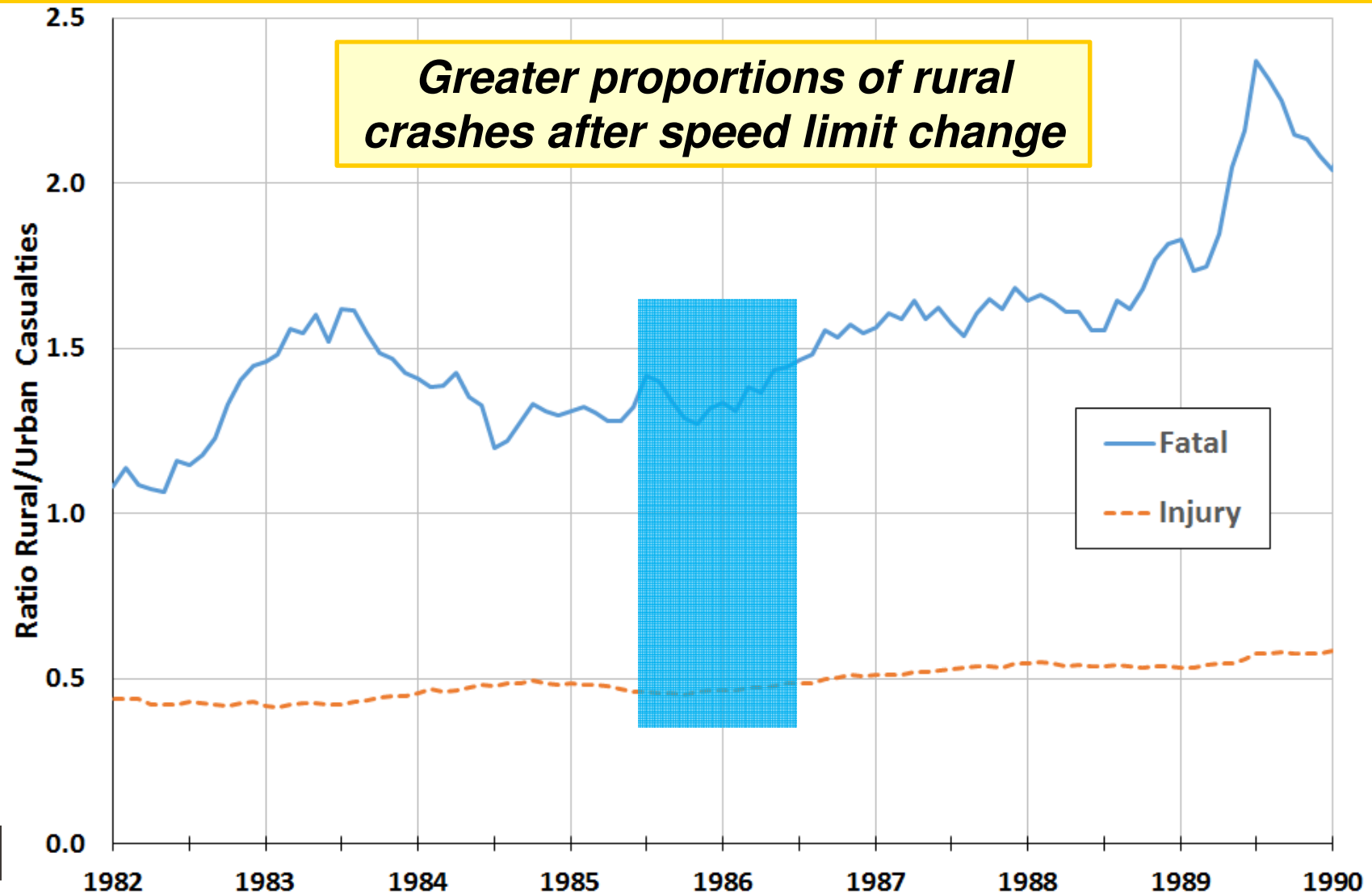


Largest increase is in rural fatalities

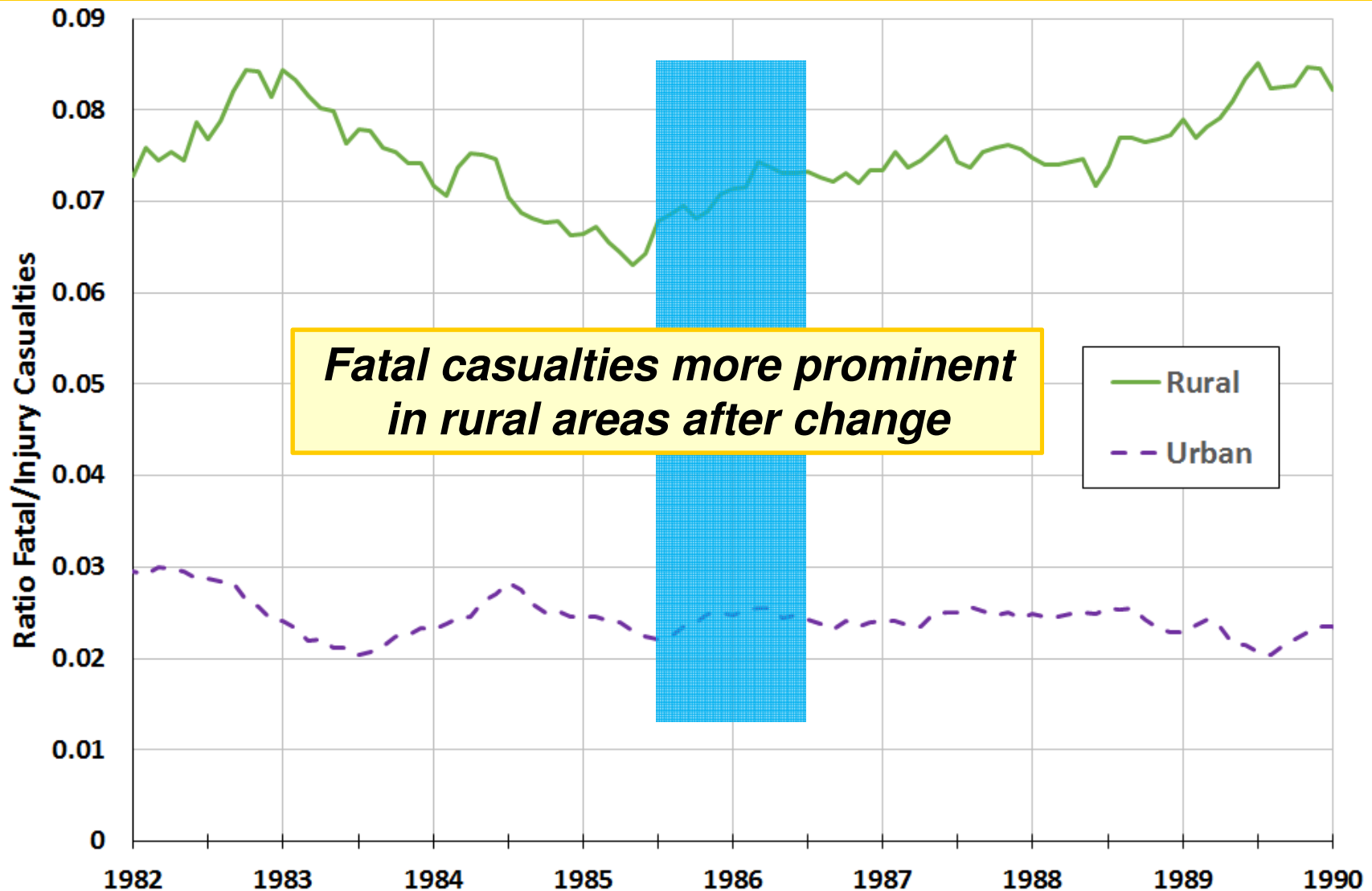
+23.2%

■ Before
■ After

1985: Gap between rural and urban crashes



1985: Fatal/injury trend changed in rural areas



1985 – other effects and initiatives

- Mean speeds jumped up 3-4 km/h (cf. 1-2 km/h pa before)
- 1983: 150km-max truck restrictions phased out
- Other initiatives had a limited influence
- 1988-89: A raft of safety measures introduced ('87 peak toll)

Increased speed limit had major impact



Conclusions

1973

Rural fatalities
dropped significantly

1985

Rural fatalities
rose significantly

- Not likely to have wholesale speed limit changes again
 - But it illustrates the effect of changing localised speed limits

Thank you!

- Any questions?



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