

# The Safety Effectiveness of the Audio Tactile Profiled Markings Programme



Safer Roads

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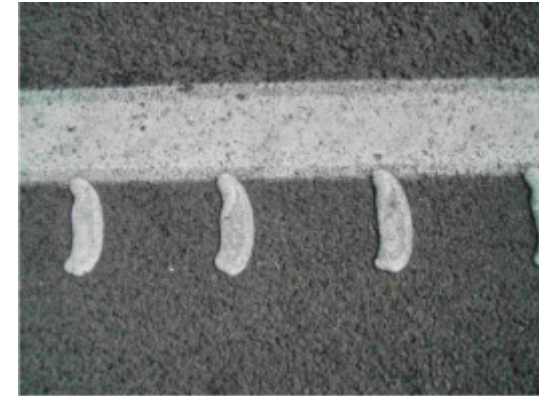
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# Audio Tactile Profiled Markings



- Plastic lumps 7mm high
- Audible and tactile notification
- thermoplastic or cold applied plastic
- white edgelines; yellow or white c
- additional delineation
- ATP guidelines by NZTA
- key recommendations



# Background: Trials



## Audio Tactile Profiled Markings (ATP)

- Successful trials in 2007 (Waikato/BoP/Northland)
- SWATT 2010
  - Improved lane keeping
  - Virtually eliminated centreline crossings
  - No change in vehicle speeds



# Background: Trials



- Excellent visibility at night
- Intensive installation 2008/09 with economic stimulus funding
- approx. 3,300 linear kilometres installed as at end of 2012
- 1,300km of SH has ATP



# Methodology for Crash Analysis

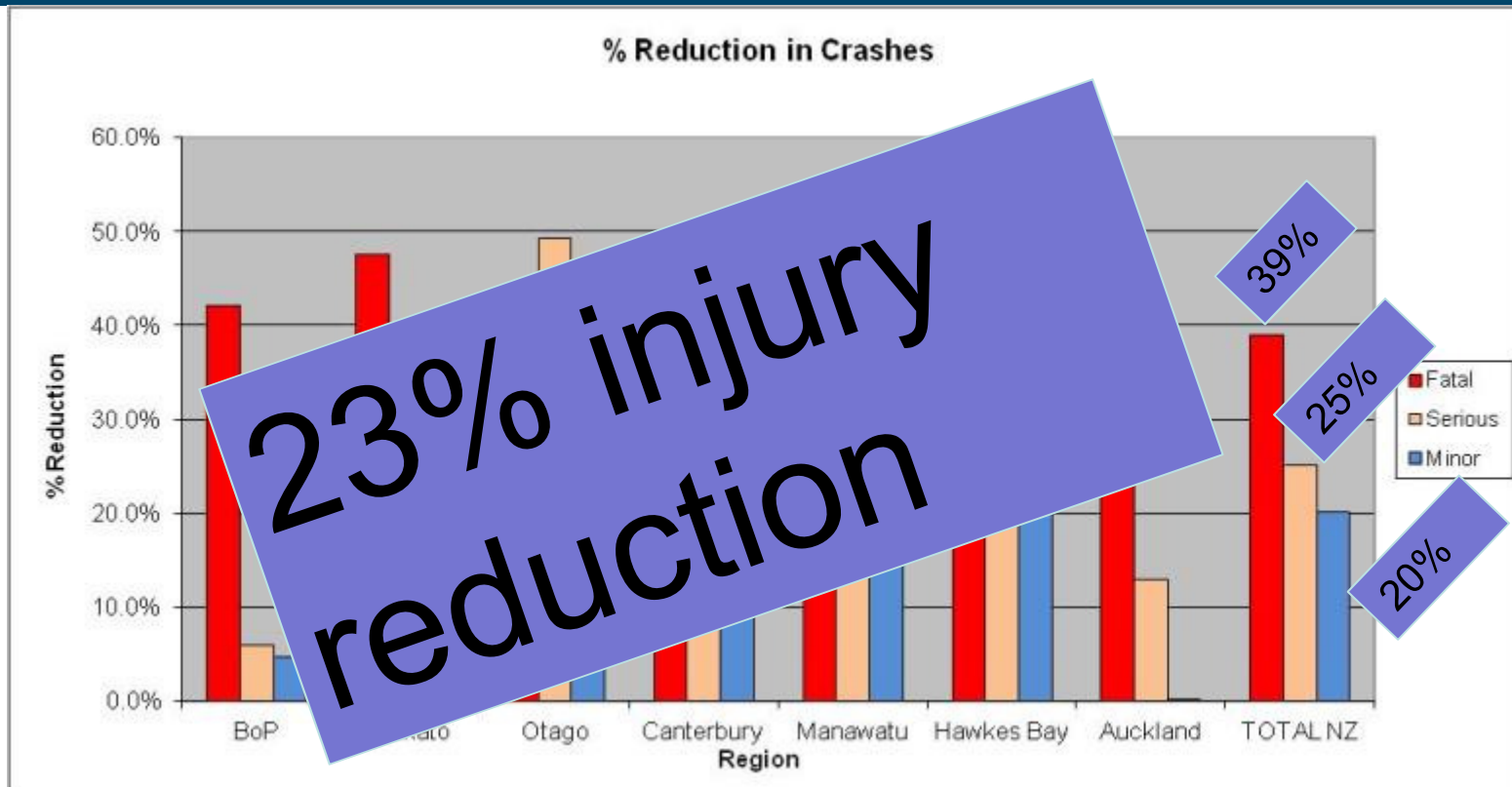


## Assumptions

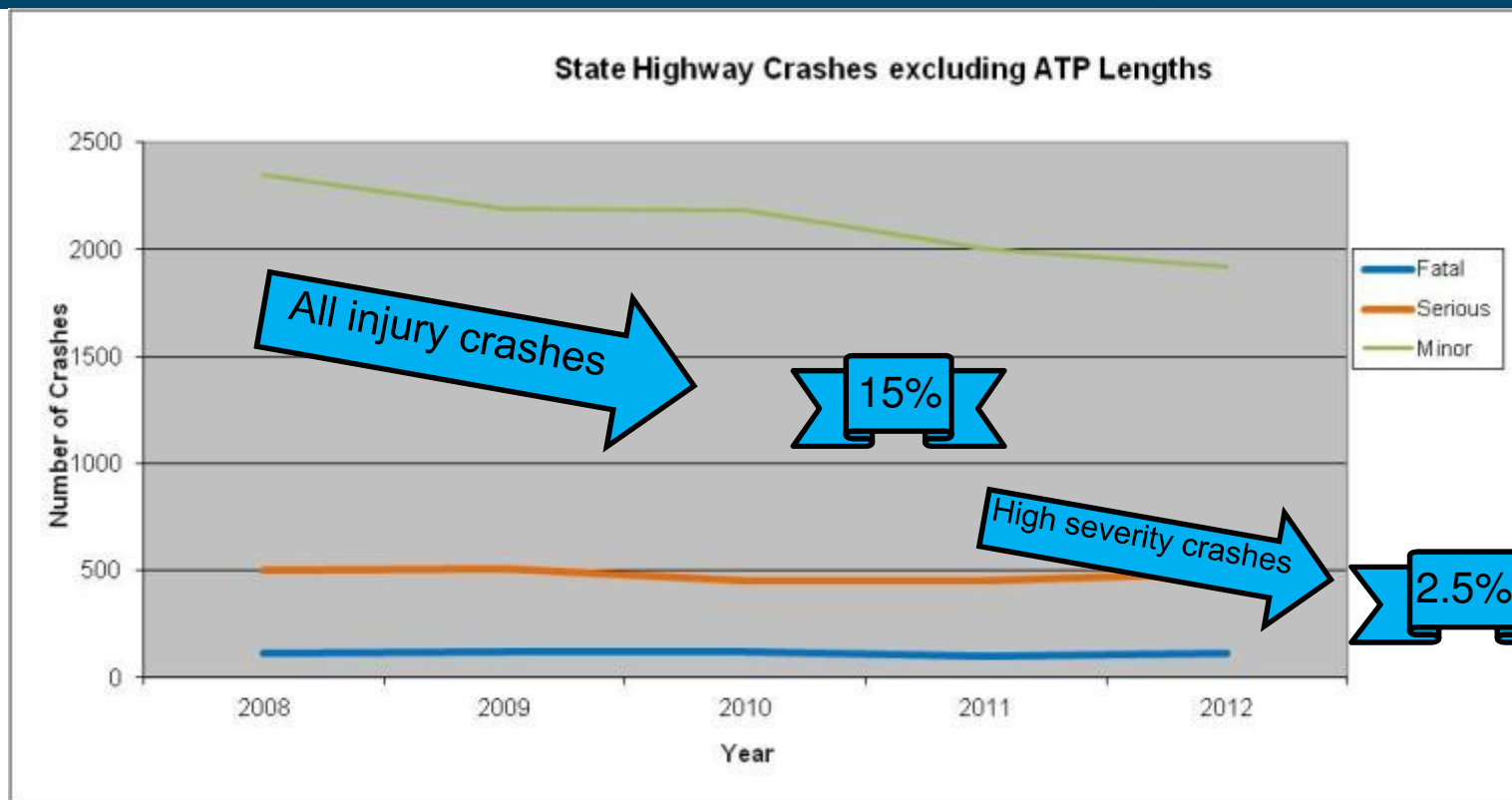
- At least 50% of route stations has ATP
- minimum 1 year post-installation data
- Injury crashes from 2003 to 2012 inclusive
- Sensitivity tests include:
  - ◇ 2/3 has ATP
  - ◇ Midblock only



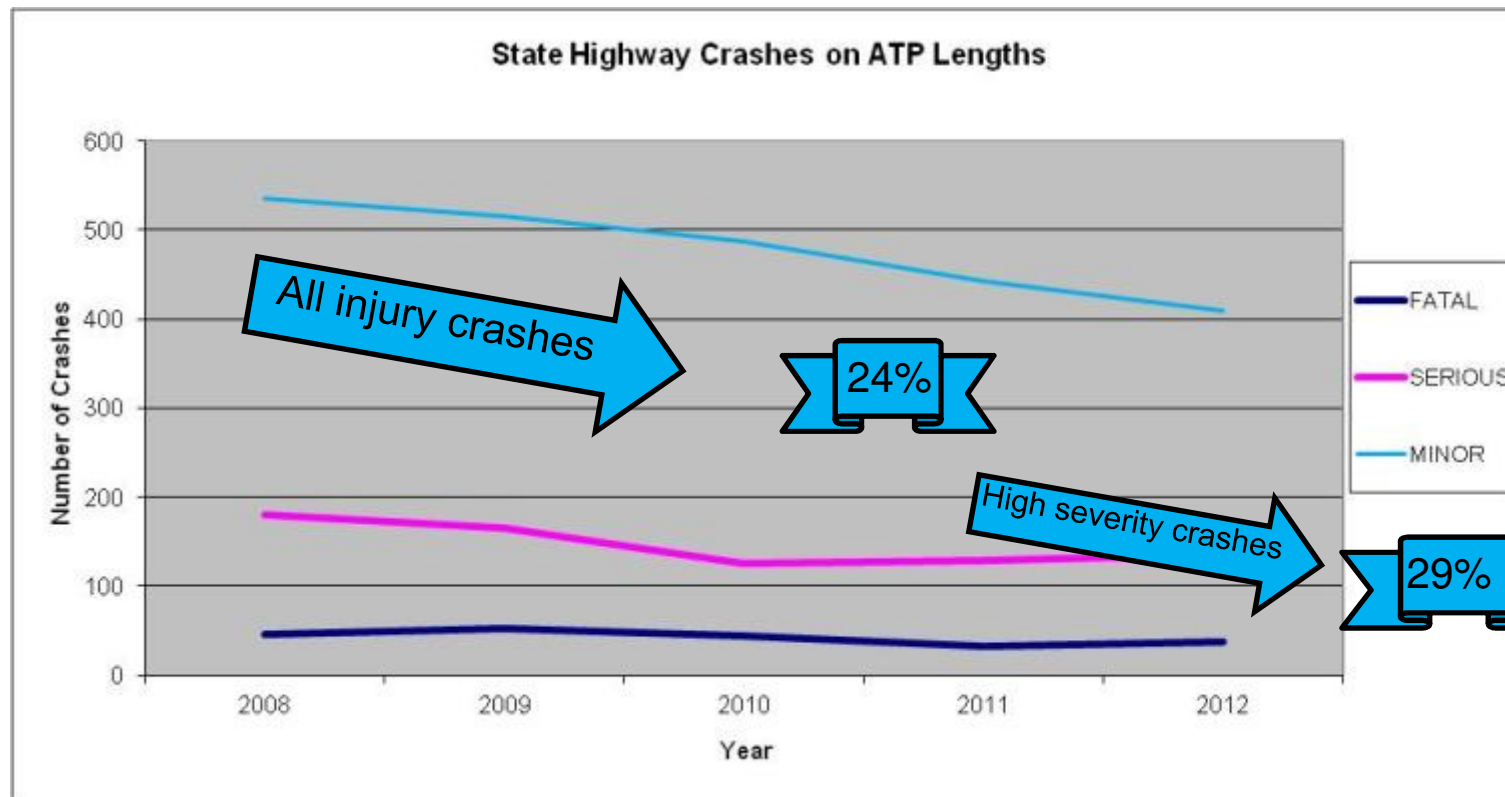
# Crash Analysis by Severity



# ATP V Underlying crash trends (all injury crashes)

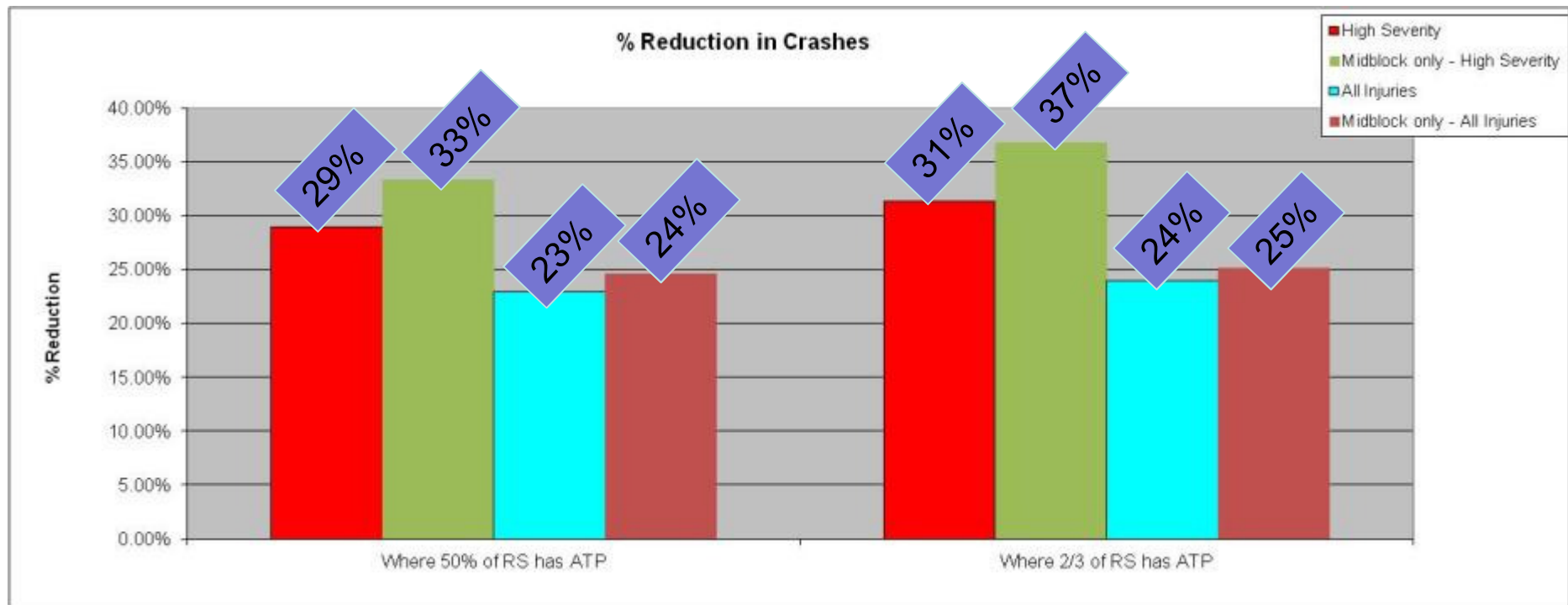


# ATP V Underlying crash trends (all injury crashes)





# Sensitivity Testing



# Safety Benefits and Costs



- ATP Installation costs of \$21.5M
- 5 year crash history 2003-2007
- 324 fatal; 964 serious; 2,704 minor crashes
- 5 year crash history 2008-2012
- 34% fatal; 24% serious; 12% minor crash reduction
- \$110M annual crash cost savings
- BCR of 25 (whole of life BCR of 17)

# Crash Summary



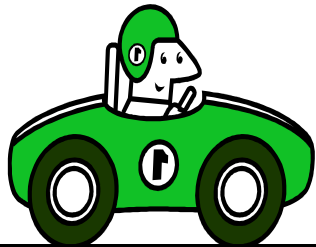
- Injury crash rate reduction 24% (15% without ATP)
- High Severity crash reduction 29% (2.5% without ATP)
- Where ATP on at least 2/3 of RS = 31% reduction in high severity crashes (increases to 37% midblock only)



# The End??



Thank you for listening.  
Any questions?



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