

# ASSOCIATION BETWEEN ADVANCED DRIVER TRAINING, INVOLVEMENT IN 4-WHEELED MOTOR SPORT AND CRASHES ON PUBLIC ROADS

APRIL 2018



MEMBER OF



# PROJECT OVERVIEW

- Study conducted by Queensland University of Technology
- Funded by AIMSS & RACQ
- Objectives:
  - Assess the existing evidence for an association between:
    - advanced driver training and crashes on public roads.
    - involvement in 4-wheeled motor sport and crashes on public roads.
  - Conduct a survey to add to the existing evidence, and where possible, address methodological issues from previous work.



# EXISTING EVIDENCE – DRIVER TRAINING & CRASHES

## Pre-licence Driver Training

- Limited to no evidence that technical skills acquired from driver training has direct effect on reducing crashes.
- Combination of technical skills, frequent engagement in driving practice and desires to engage in safe driving behaviour is more important than technical skills alone.

## Post-licence Driver Training

- Teaching technical skills alone shown to be counter-productive to improving road safety.
- Limited evidence that training with a focus on higher-order cognitive skills (e.g.: detecting on-road hazards) as well as technical skills promotes safe driving behaviour.



# EXISTING EVIDENCE – MOTOR SPORT & CRASHES

- Limited literature available (6 studies)
  - Classify motor sport involvement as participants as well as spectators
- Motor sport involvement positively associated with driving offences, especially speeding
- Too few studies to reach conclusion about association between motor sport and road safety
- Several methodological issues with studies
  - Not controlled for confounding factors (e.g.: time spent driving, driving attitudes etc)
  - No specifics of motor sport included such as frequency or level of experience



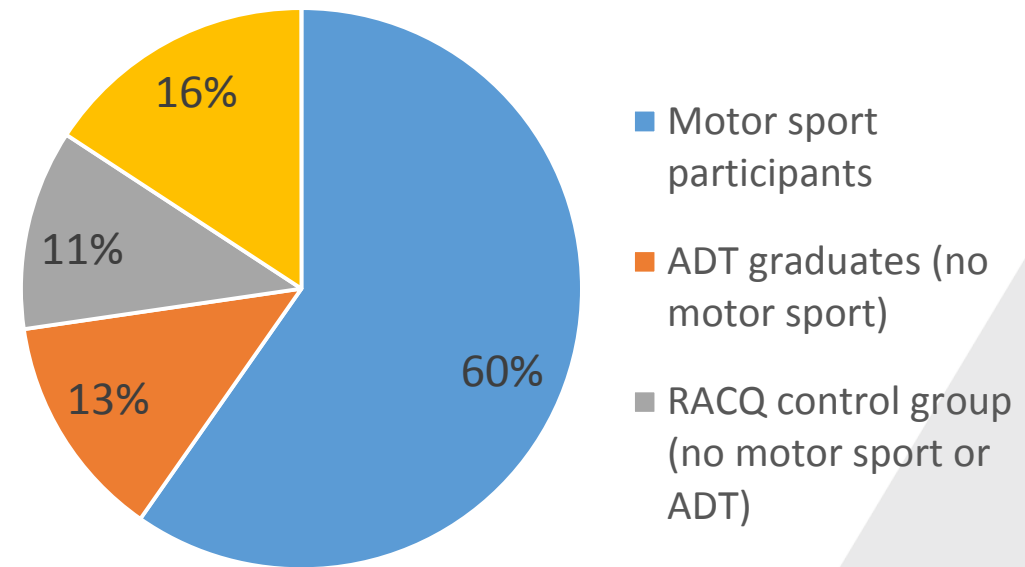
# THE SURVEY

- Cross-sectional online survey of Australian adults who regularly drive on public roads.
- Participants recruited from:
  - CAMS members.
  - RACQ members.
  - Panel compiled by market research company Survey Sampling international (SSI).
- Participants asked questions related to:
  - Driving exposure (how far & how long).
  - Attitudinal variables (risky driving, attitude towards speeding, risk-taking propensity).
  - Crashes in last 5 years where there was injury or damage > \$1,000.
  - Demographics.
  - Details of motor sport and advanced driver training (ADT).

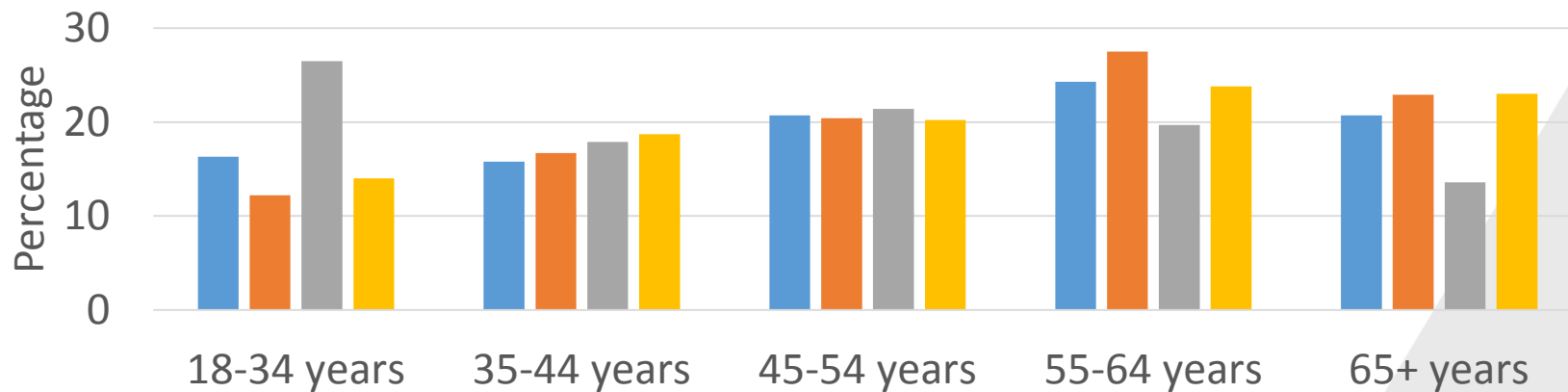


# SURVEY PARTICIPANTS

- Total of 5,413 respondents
- 85% male
- 58% lived in capital cities

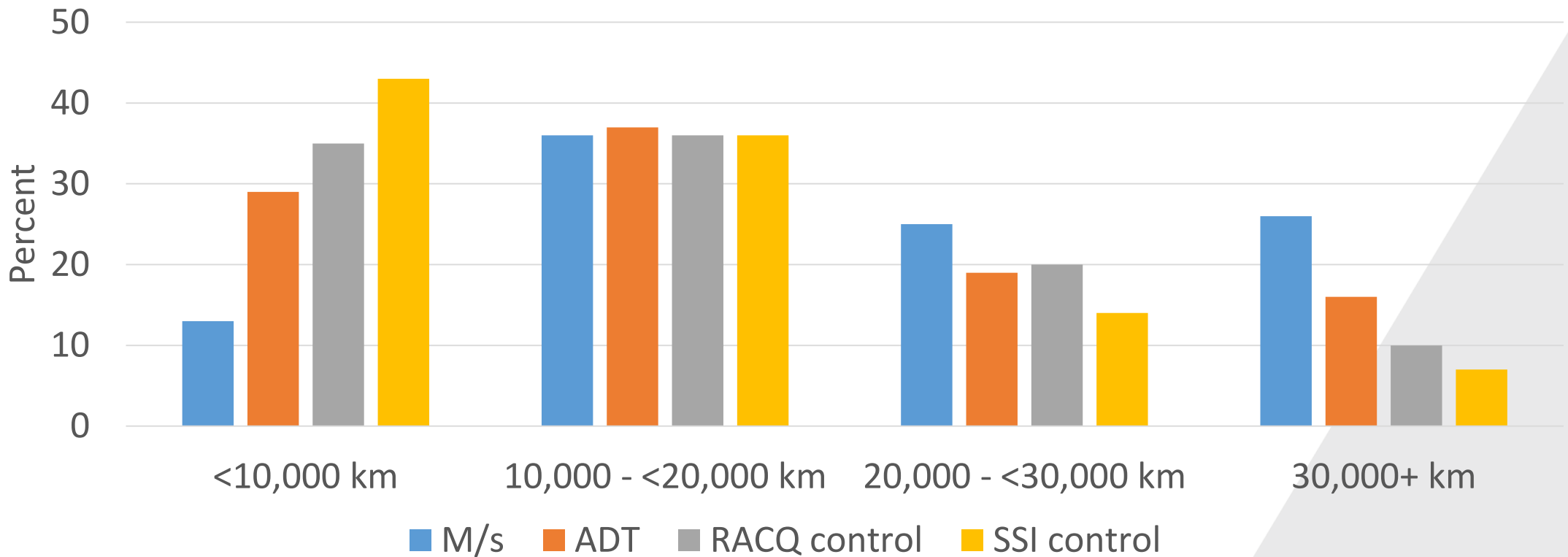


AGE DISTRIBUTION OF PARTICIPANTS



# DRIVING EXPOSURE

DISTANCE DRIVER PER YEAR, ON AVERAGE, BY GROUP



# CRASHES & INFRINGEMENTS IN LAST 5 YEARS

- 16% of respondents were involved as driver in a crash
- Positive association between driving distance & being involved in a crash
  - 11% of those who drove <10,000 km/year had at least one crash
  - 15% of those who drove 10,000 to 20,000 km/year had a crash
  - 19% of those who drove >20,000 km/year had a crash
- 28% of respondents had received at least one driving infringement
  - 26% for speeding





# MOTOR SPORT (MS) & CRASHES - 1

- For people driving <10,000 km/year & >20,000 km/year
  - No increased or decrease odds of crashes for MS participants compared to RACQ control and SSI control groups.
  - No demographic factors, attitudinal/behavioural variables or licensing factors influenced result.
- For people driving 10,000 – 20,000 km/year
  - No increased or decreased odds of crashes for MS participants compared to RACQ control group.
  - Increased odds of at least one crash for MS participants compared to SSI control group.



# MOTOR SPORT (MS) & CRASHES - 2

- Factors associated with crashes amongst MS participants
  - No training for MS increased risk of having crash by 50% compared to MS participants who received training at least 10 years prior to survey.
  - MS participants who competed in speedway stock car racing had 3.6 times higher likelihood of crash than MS participants who had not competed in speedway stock car racing.
  - Participants in touring car racing associated with 67% reduced likelihood of crash compared to MS participants who had not competed in touring car racing.



# ADT & CRASHES

- No increased or decrease odds of crashes for ADT graduates compared to RACQ control and SSI control groups irrespective of their driving distance
  - No demographic factors, attitudinal/behavioural variables or licensing factors influenced result
- One factor was associated with crashes involving ADT graduates
  - Having at least 8 hours behind the wheel of a motor vehicle during ADT before receiving an open licence was associated with 2.6 times lower likelihood of crash compared to those who spent fewer hours



# STUDY LIMITATIONS

- Respondents were not asked whether they were at-fault in crashes
- No data was collected related to severity of crash
- Motor sport participants were not asked if they were drivers or passengers
  - Only 4% of respondents participated solely in motor sport involving >1 person
- Only ADT graduates who completed the ADT more than 5 years ago were included in analysis (so could be sure ADT occurred before crash)
- Sample selection was different for SSI control group (panel member) compared to other groups (volunteer)



# CONCLUSION

- No evidence to suggest the odds of being involved as a driver in a crash on public roads was different for either motor sport participants or ADT graduates, compared to the RACQ control group.
- No evidence to suggest the odds of being involved as a driver in a crash on public roads was different for ADT graduates and SSI control group.
- No evidence to suggest the odds of being involved as a driver in a crash on public roads was different for motor sport participants who drove <10,000km/year or >20,000km/year and SSI control group.
- Motorsport participants who drove 10,000 – 20,000 km/year had a higher odds of having at least one crash than members of the SSI control group who drove this distance.
  - Study was unable to identify any explanation for this difference.



