Insurance Institute for Highway Safety
Highway Loss Data Institute

Observations of distracted driving in different roadway situations

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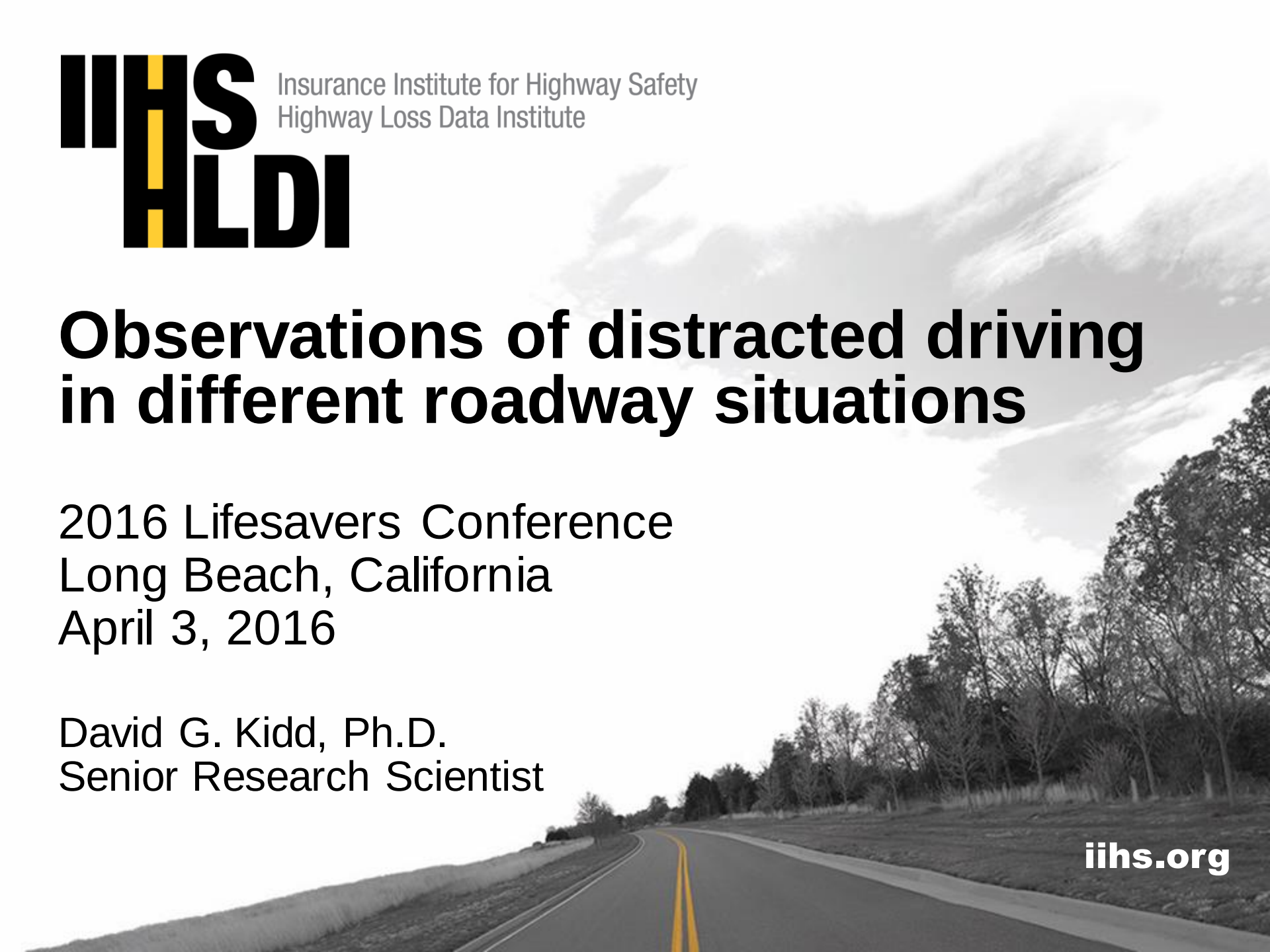

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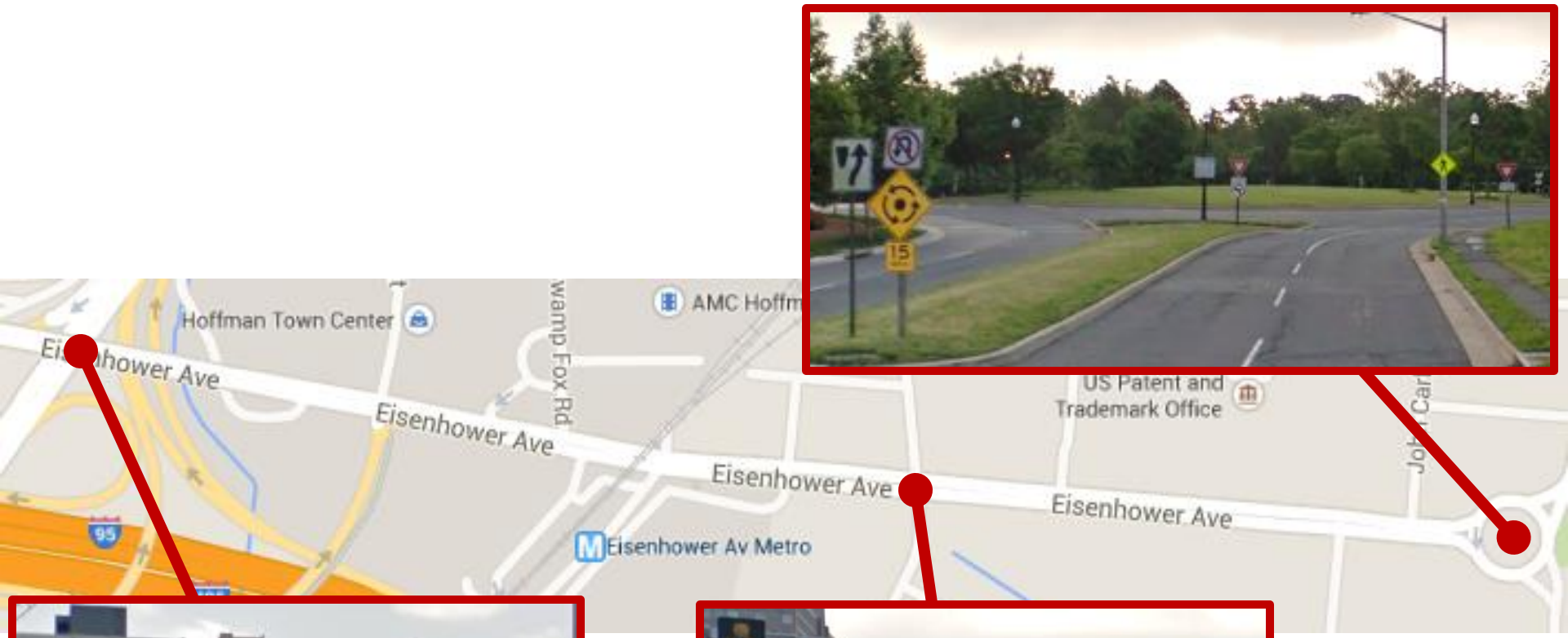
16,556 drivers were observed in four different roadway situations

Sites were located on the same roadway corridor



Observers coded 12 different distracting behaviors





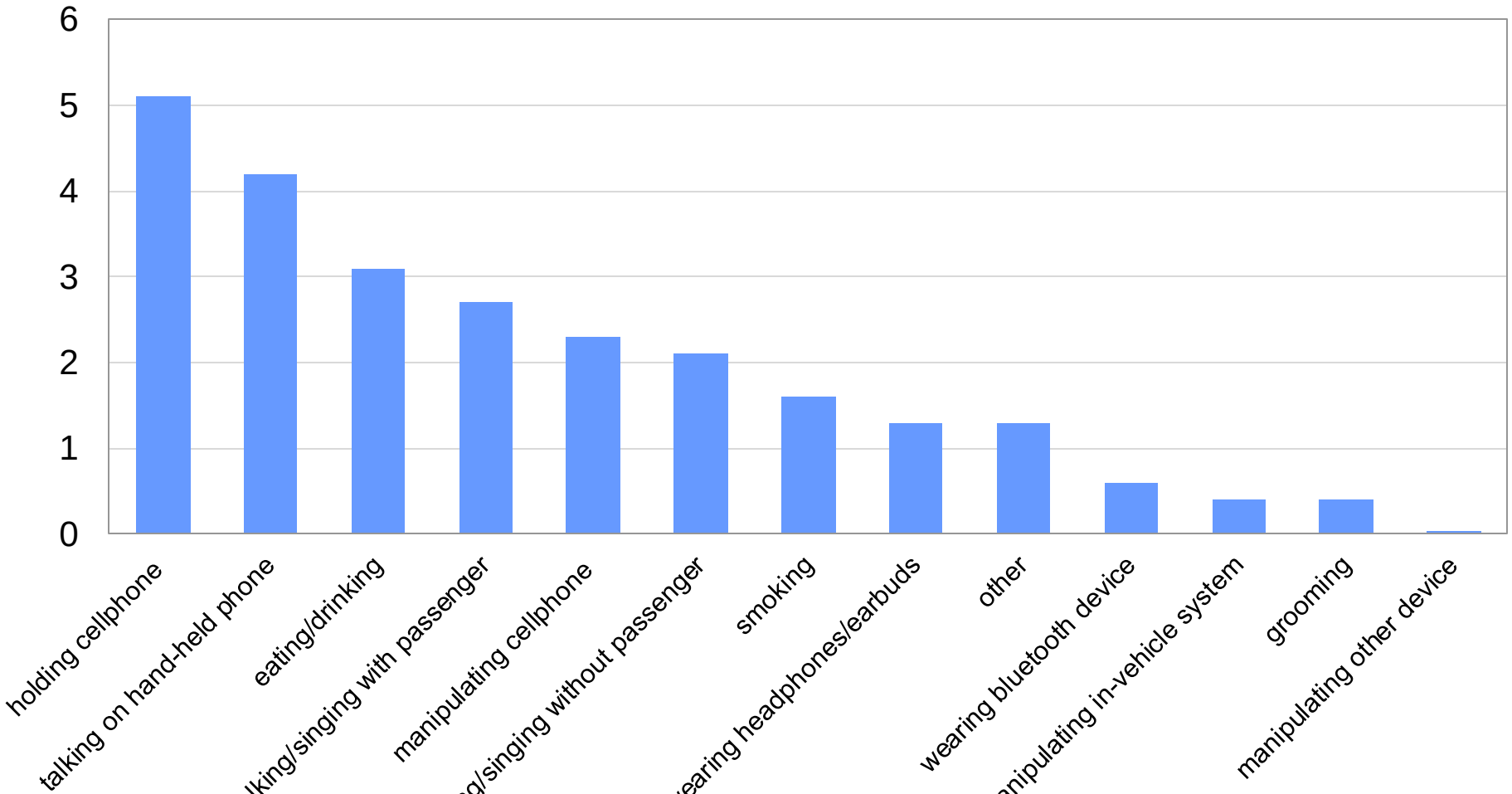






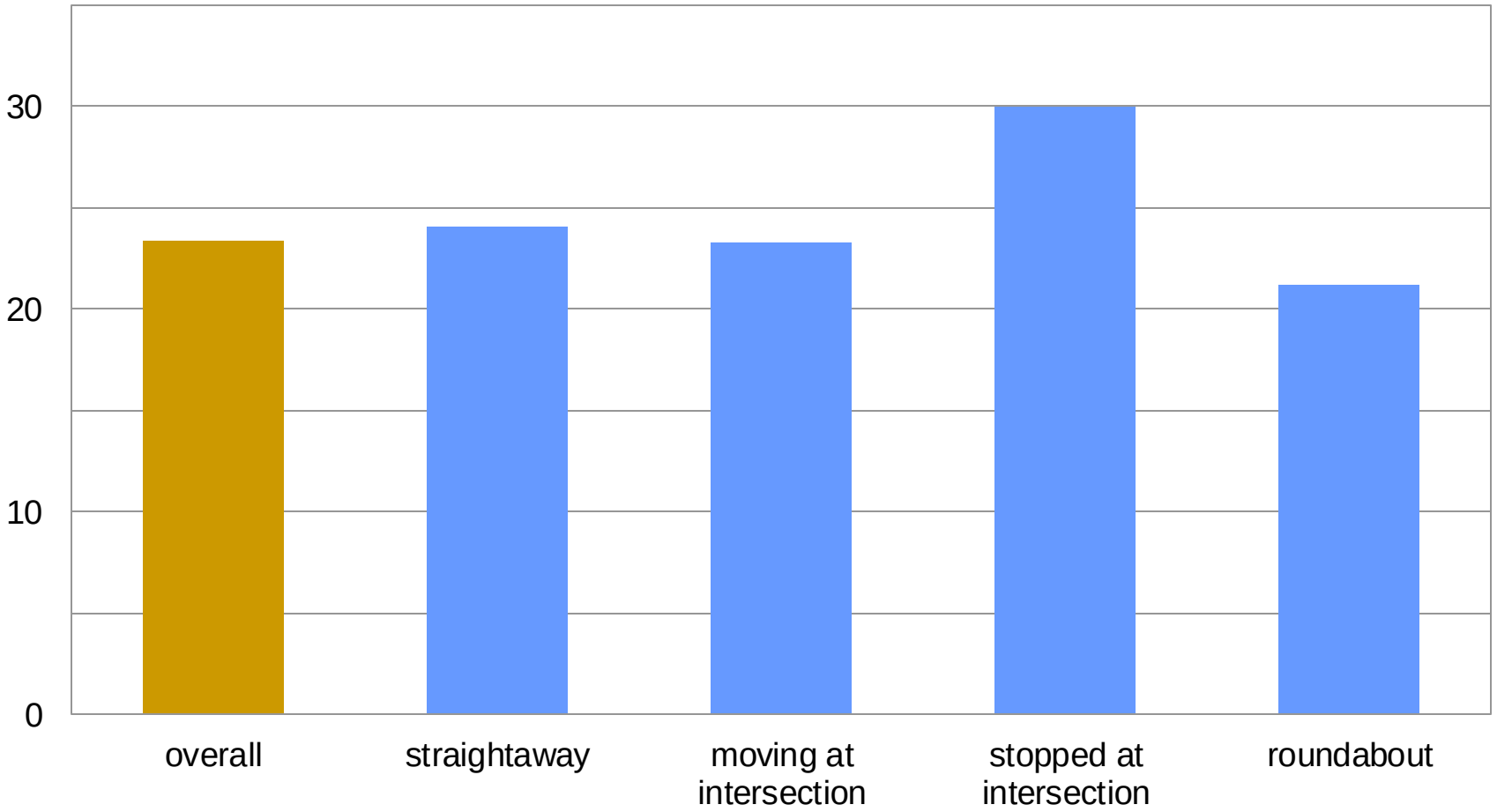

Prevalence of each distracting behavior

Percent of vehicles observed



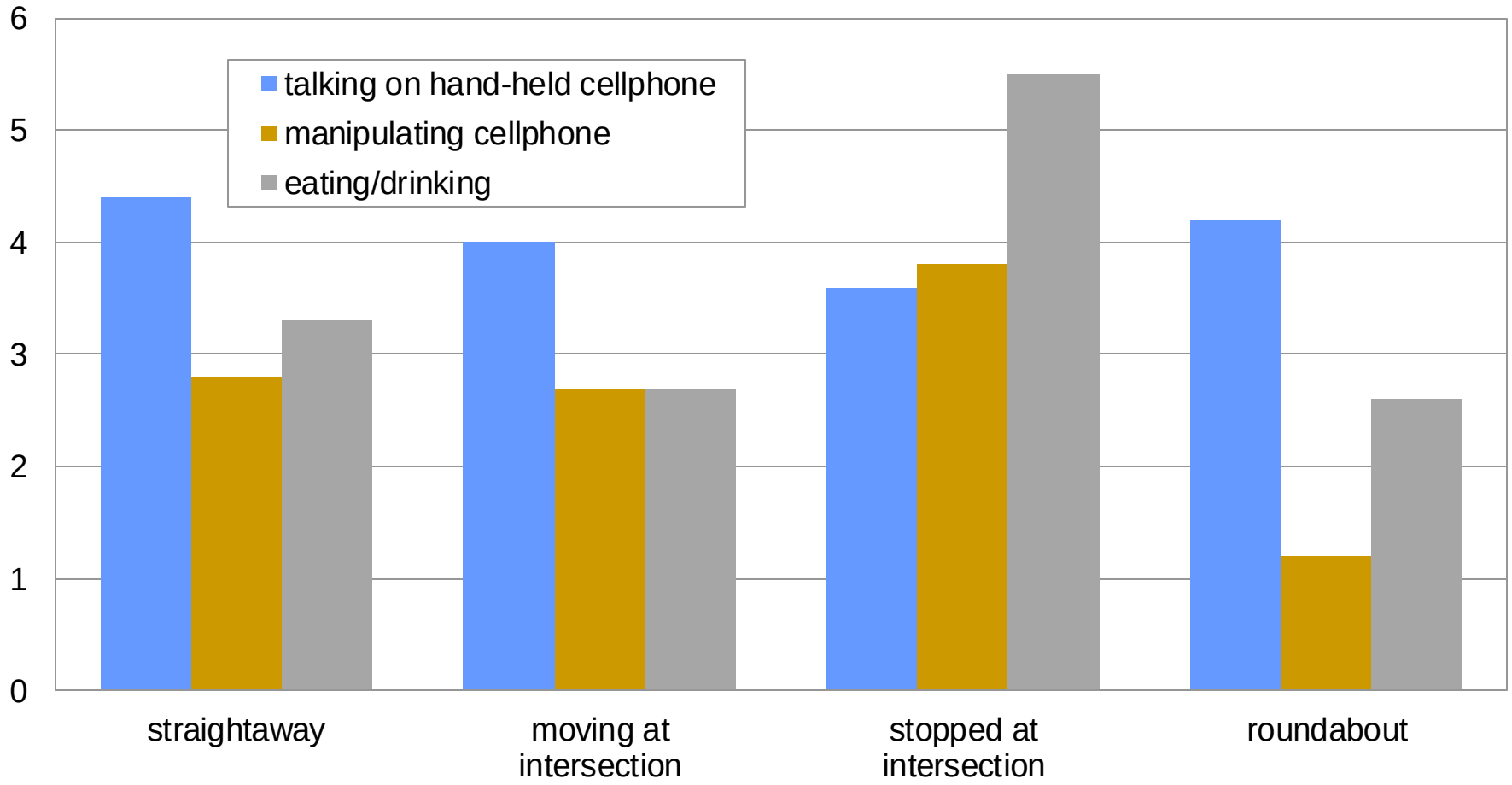
Distracting behaviors more common in less-demanding roadway situations

Percent of drivers engaged in any distracting behavior



Visual-manual distracting behaviors more common in less-demanding roadway situations

Percent of drivers engaged in specific distracting behaviors



Crash severity and crash risk using naturalistic driving data

Naturalistic driving studies provide more information about events before crash

2nd Strategic Highway Research Program (SHRP2) Naturalistic Driving Study largest to date

- Daily driving of over 3,000 U.S. drivers recorded for up to 3 years during 2010-13
- Video recordings and vehicle sensor data for 1,465 crashes
- Few crashes observed in prior naturalistic driving studies and most were minor
  - Only 15 of 82 crashes in the 100-car study were reported to police
  - Studies combined crashes with safety-relevant events like near-crashes
- Objectives of current study
  - Describe crash types for crashes of different severity
  - Estimate risks associated with secondary behaviors for different crash severities and types

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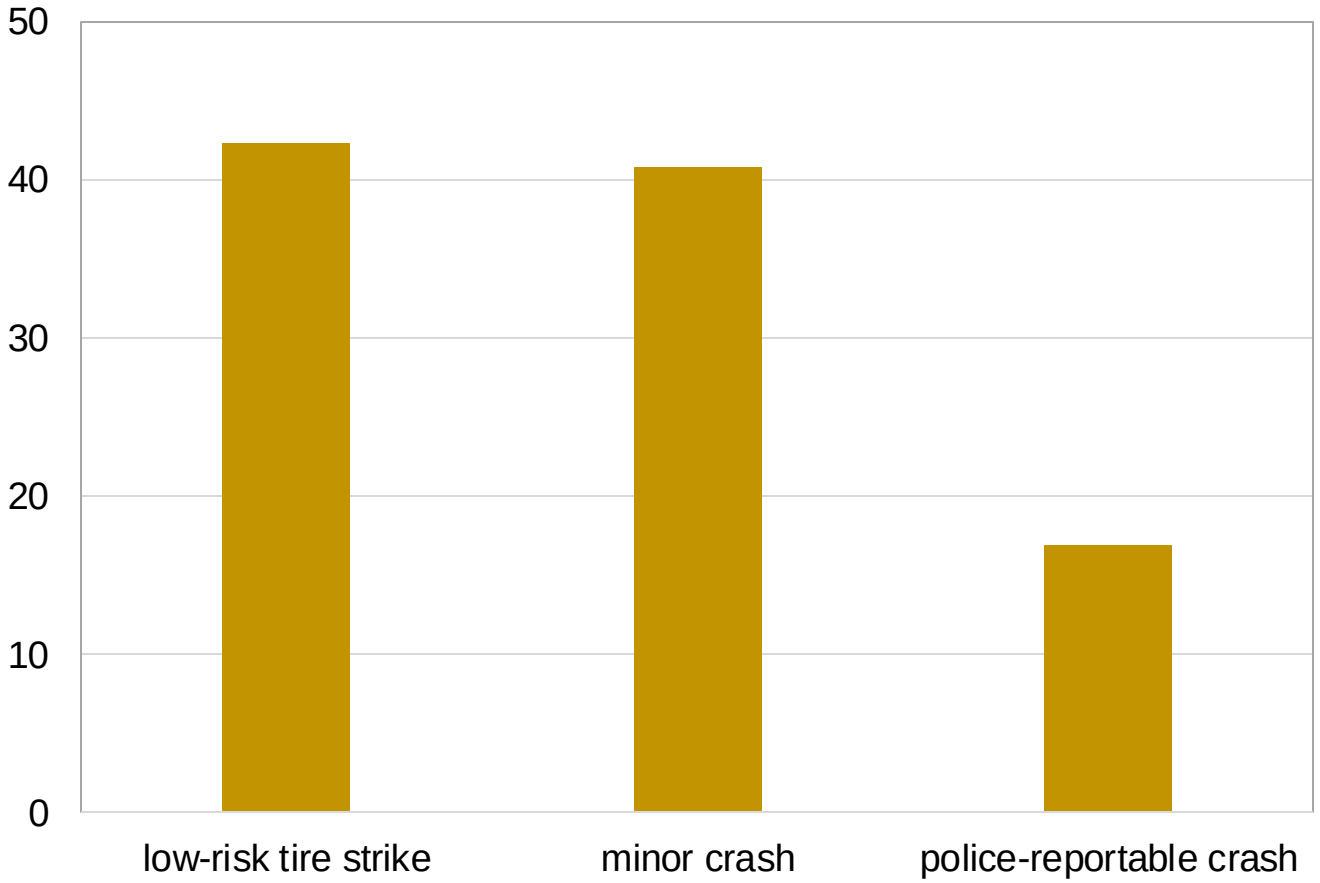
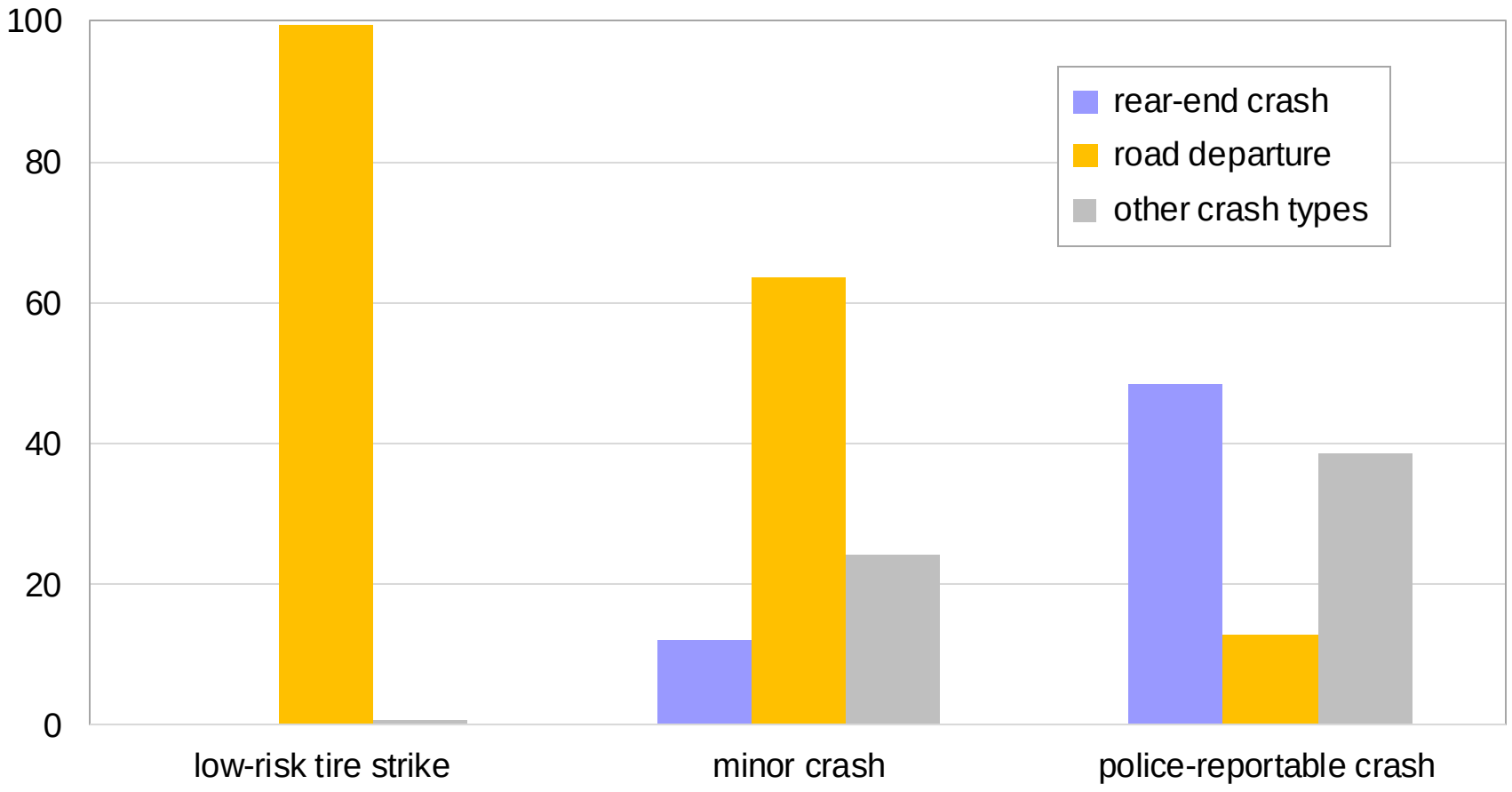
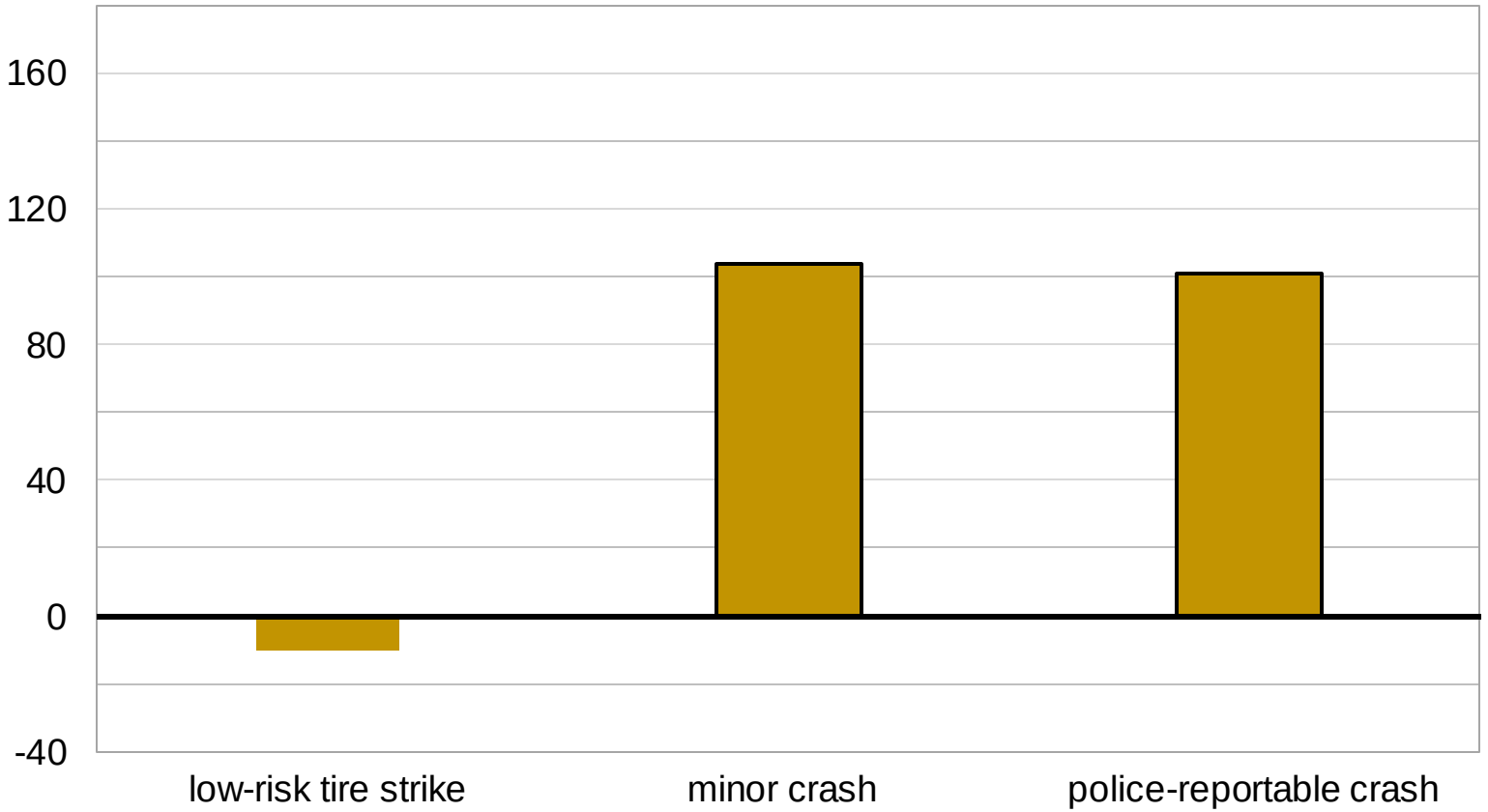
Percentage of all crashes by crash severity



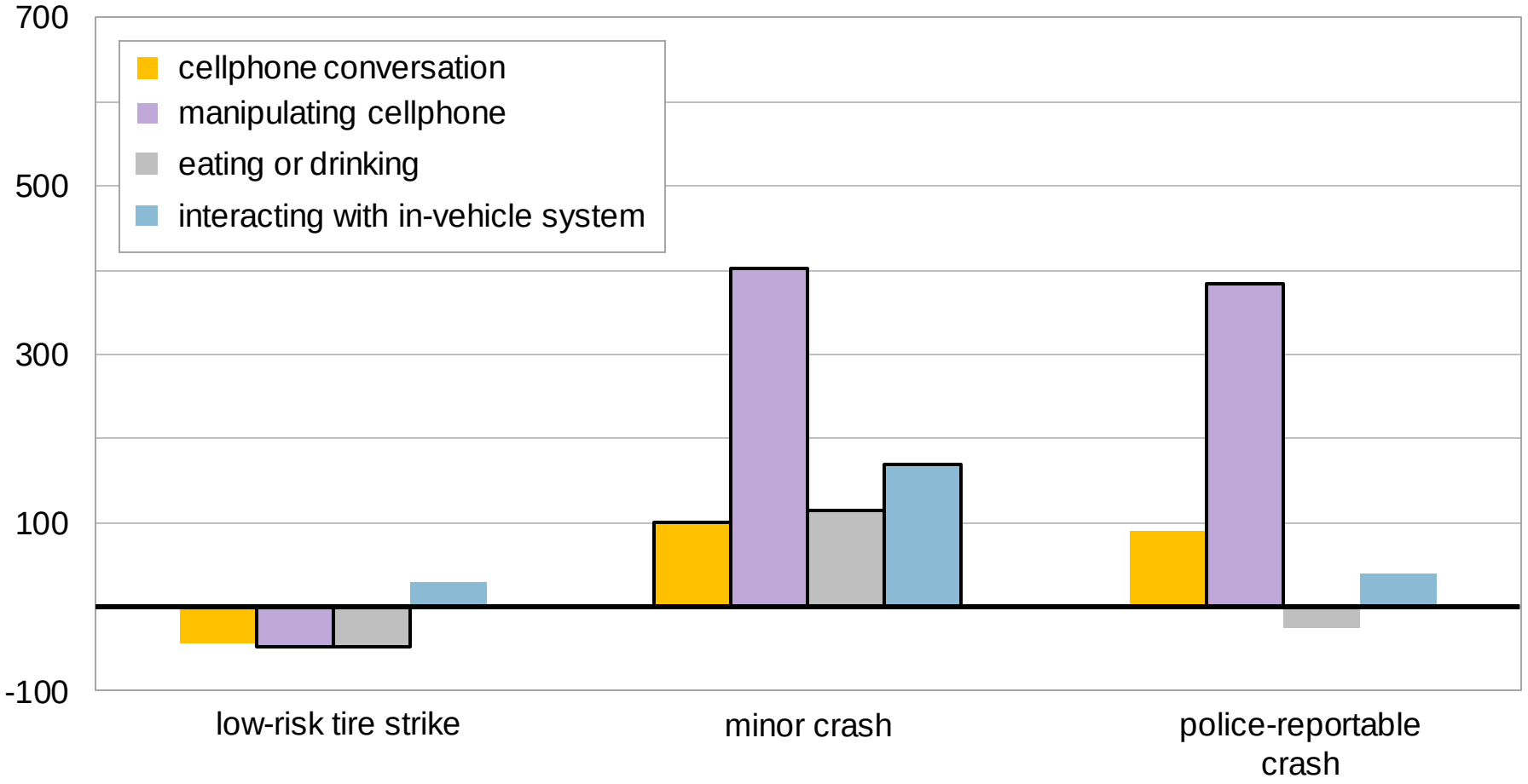
Percent distribution of crash types by crash severity



Percent change in crash risk relative to just driving associated with any secondary behavior for different crash severities



Percent change in crash risk relative to just driving for specific secondary behaviors



Conclusions

- Majority of crashes in SHRP2 are not severe, and crash types differ for least severe and most severe crashes
- Countermeasures should target most serious crashes
- Consistent with prior research, crash risk associated with manipulating cellphone was greater than risk of talking on cellphone
- Cellphone conversation associated with significant increase in crash risk versus driving without any distractions
  - No significant increase when compared with driving that may include other distractions
- Current estimates do not account for contextual, situational and driver factors

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