The What and Why of Distracted Driving

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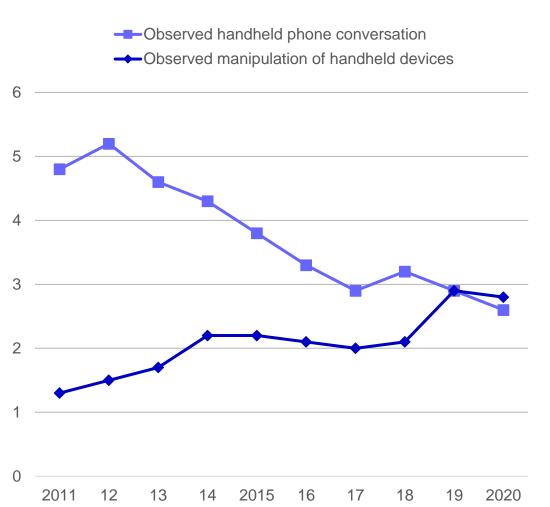


Six states proposed banning car radio use in the 1930s

Radio-Craft magazine, June 1935



Observed manipulation of handheld devices up NHTSA's National Occupant Protection Use Survey (NOPUS), 2011-20



Survey methodology

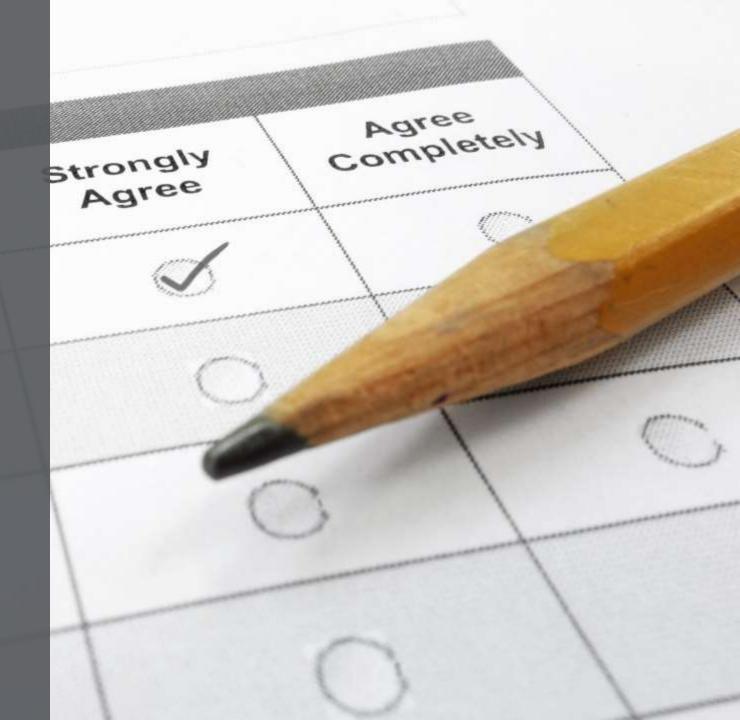
Mixed-mode:

- Landline
- Cell phone
- Web-based

2,013 participants

Licensed drivers ages 16 and older

~ 60 questions



Goals of survey





What secondary activities are distracting drivers today?

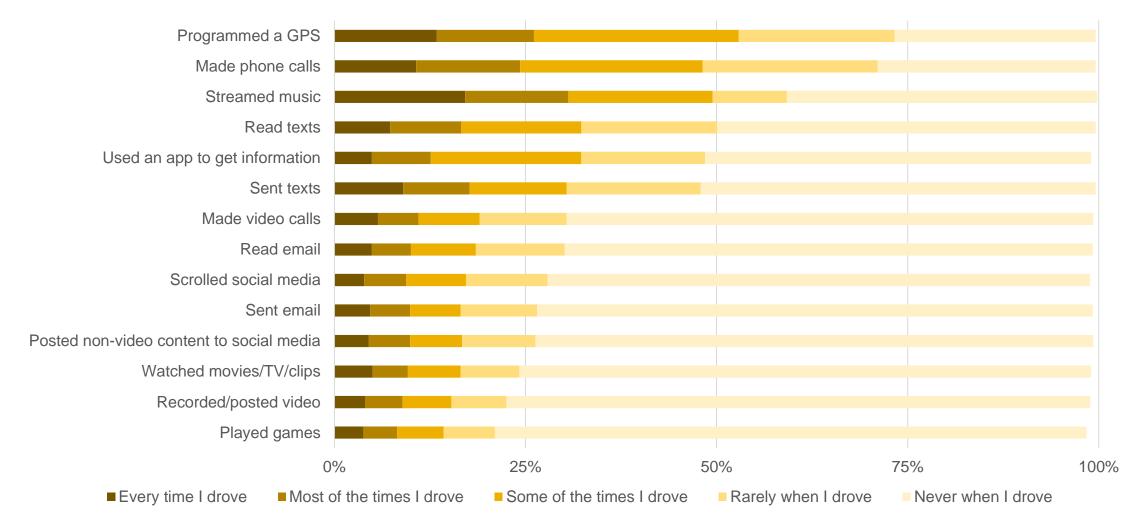
What are the sources of distraction?

How often are drivers distracted?

Are drivers performing device-based tasks handsfree?

Programming GPS, making phone calls, and streaming music were most common device-based secondary tasks

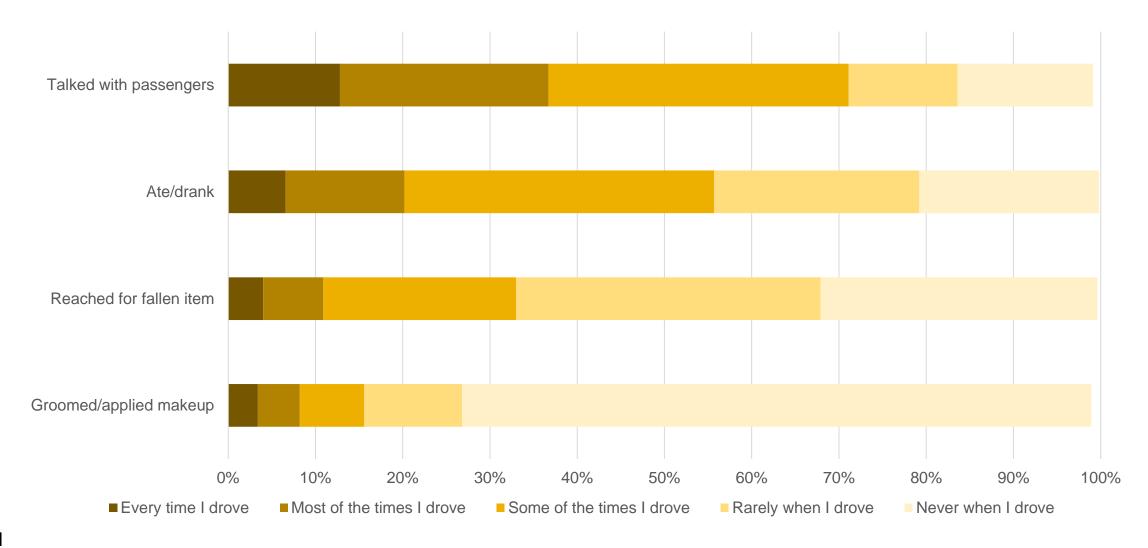
Previous 30-day prevalence of device-based based secondary tasks, entire study sample





Half or more of the sample ate or drank and talked with passengers at least some of the time

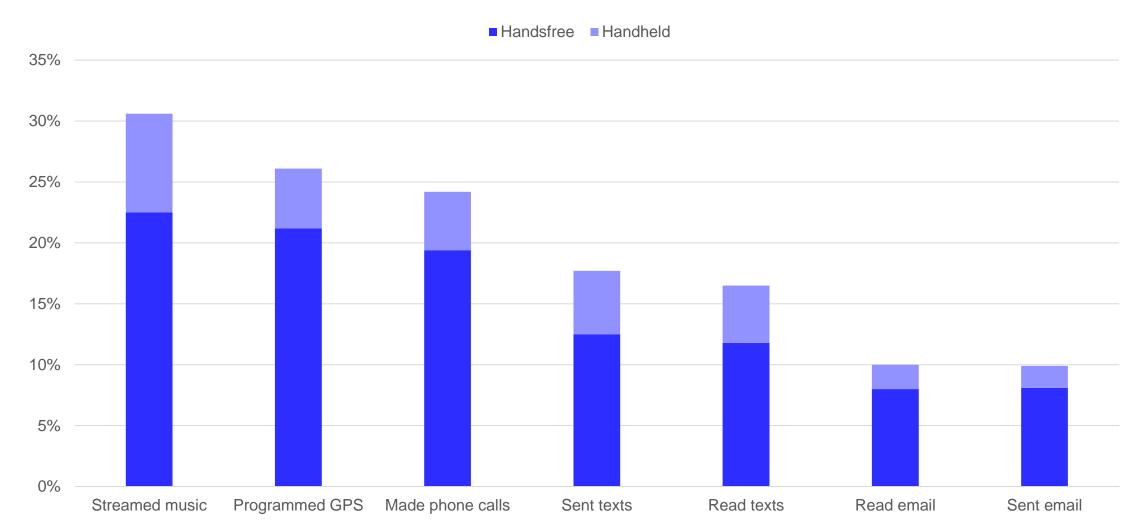
Previous 30-day prevalence of non-device-based secondary tasks, entire study sample





Most of the drivers who did secondary tasks with handsfree capabilities reported doing them handsfree

Percentage of drivers who do tasks regularly handsfree vs. handheld





Any distraction category

Program or edit route on a navigation system (GPS, phone's navigation app, in-vehicle navigation system)

Make a phone call

Send text messages, either using the device's primary messaging app or another platform such as Facebook Messenger or WhatsApp

Read text messages on the device's primary messaging app or another platform such as Facebook Messenger or WhatsApp

Send email

Read email

Stream and change music using a phone-or device-based app (Spotify, Pandora, Apple Music, etc.), either through a phone or the vehicle's interface

Make a video call (FaceTime, Zoom, etc.)

Watch a movie, TV show, or video clip of any length (including TikTok or YouTube)

Record and post or livestream a video on a social media app (TikTok, Facebook, Instagram, etc.)

Post text, photos, or livestream a video on a social media app (TikTok, Facebook, Instagram, etc.)

Scroll through or read non-video content on a social media app (Pinterest, Twitter, Instagram, Snapchat, Facebook, etc.)

Play any type of game on a handheld device

Use an app to get information (for example, weather, gas station, restaurant, traffic conditions, business hours, or news)

Eat or drink

Groom or apply makeup

Talk or interact with a passenger, child, or pet



Reach for a fallen item

Device-based distraction category

Program or edit route on a navigation system (GPS, phone's navigation app, in-vehicle navigation system)

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Modern device distraction category

Program or edit route on a navigation system (GPS, phone's navigation app, in-vehicle navigation system)

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Read text messages on the device's primary messaging app or another platform such as Facebook Messenger or WhatsApp

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Read emai

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Reach for a fallen item

Non-device-based distraction category

Program or edit route on a navigation system (GPS, phone's navigation app, in-vehicle navigation system)

Make a phone call

Send text messages, either using the device's primary messaging app or another platform such as Facebook Messenger or WhatsApp

Read text messages on the device's primary messaging app or another platform such as Facebook Messenger or WhatsApp

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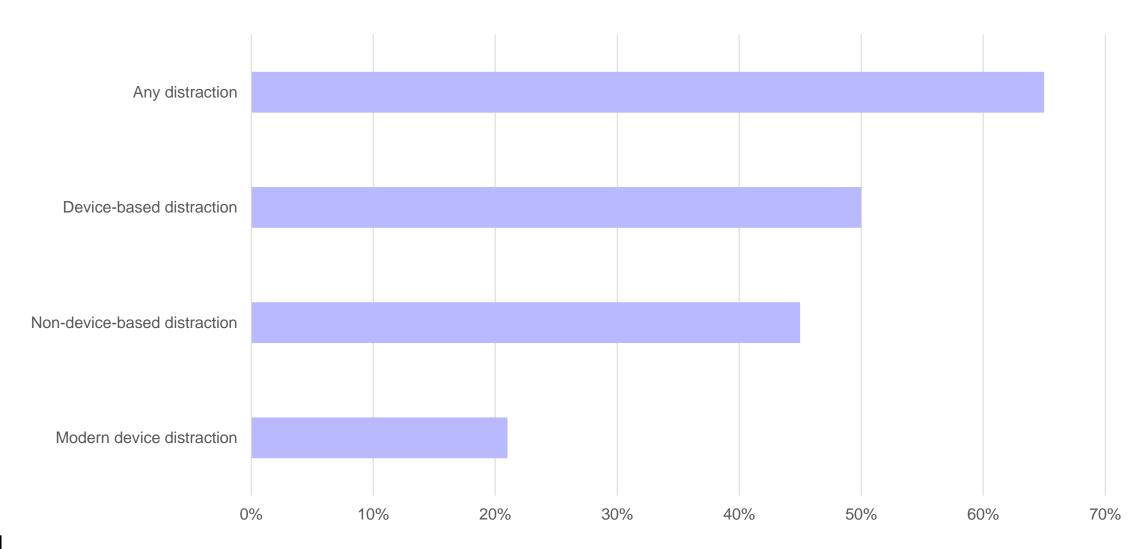
Talk or interact with a passenger, child, or pet



Reach for a fallen item

Half regularly did at least one device-based secondary task

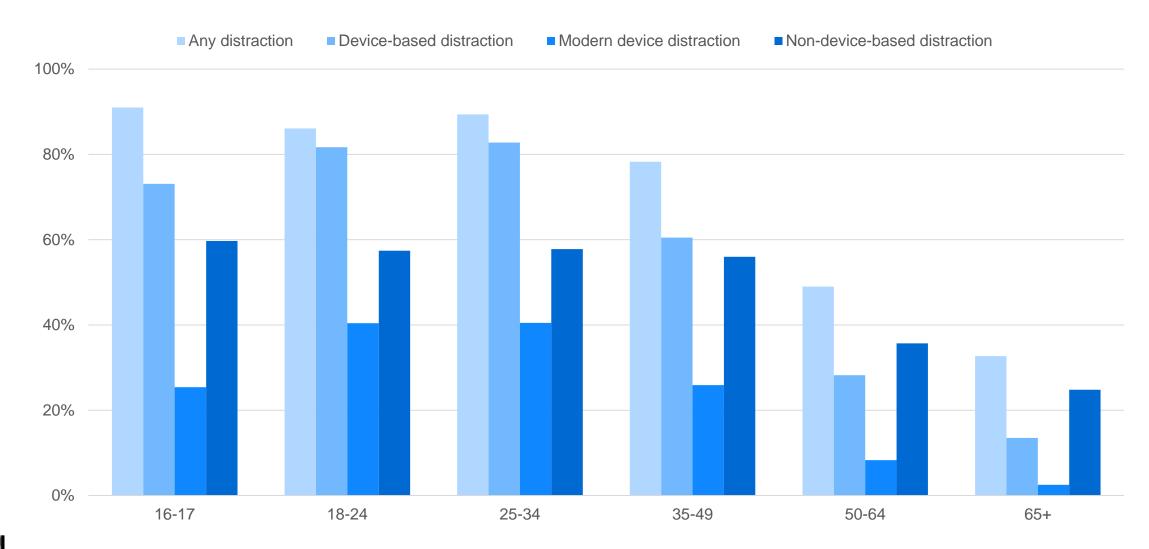
Percentage within each behavior category





Drivers under age 35 most likely to drive distracted

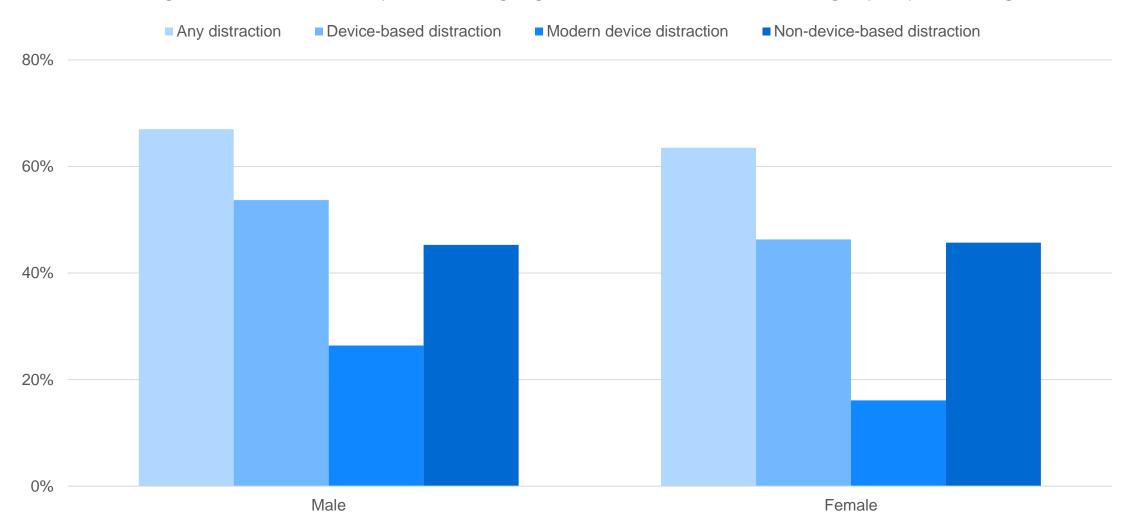
Percentage of drivers surveyed belonging to each distraction category, by age





Males more likely to drive distracted by devices, females by non-device tasks

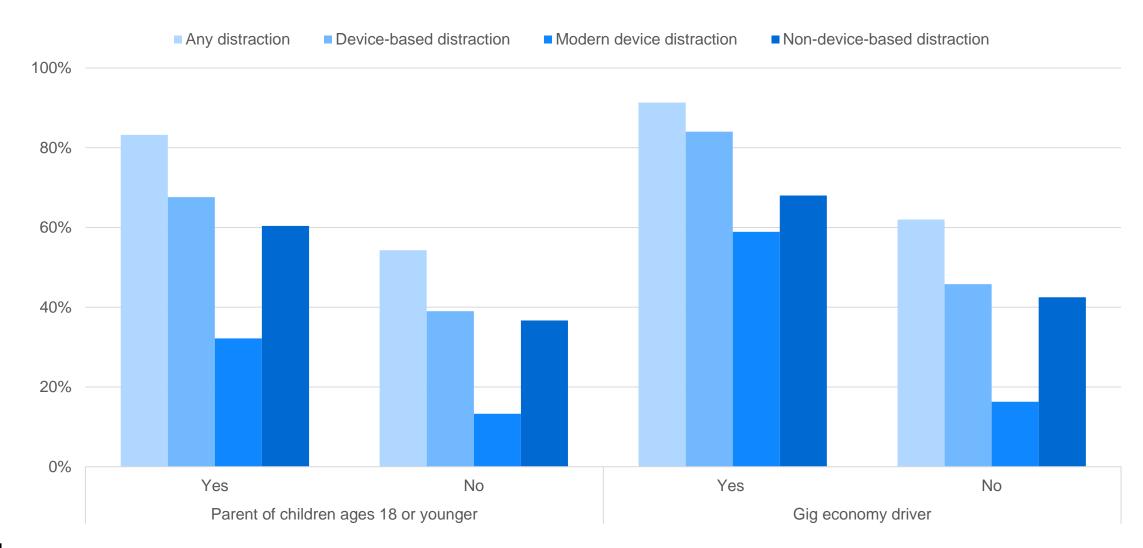
Percentage of drivers surveyed belonging to each distraction category, by driver gender





Parents and gig economy drivers were more likely to regularly drive distracted

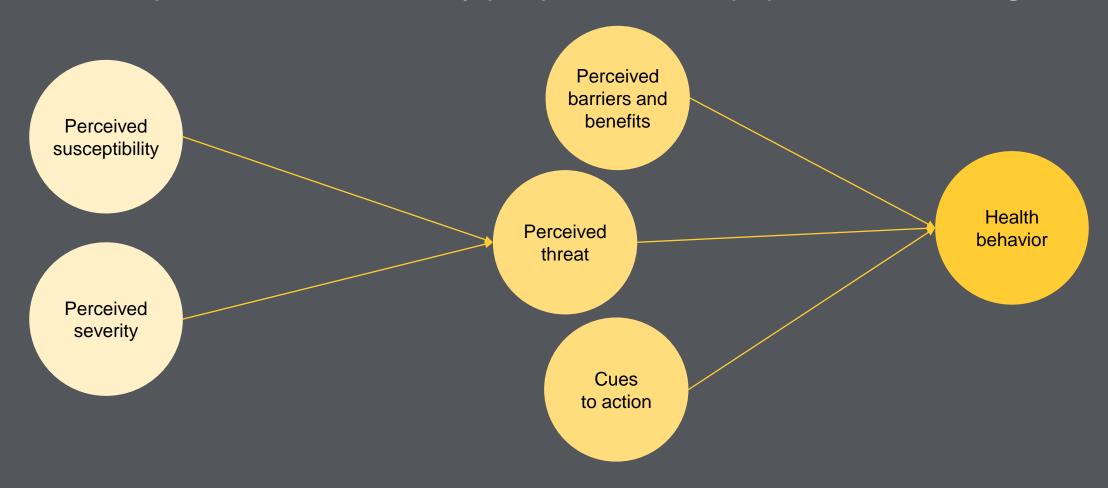
Percentage of drivers by parental and gig economy driver status





Health Belief Model

Developed to understand why people fail to adopt prevention strategies





How do drivers perceive the threat of device-based distraction?

Perceived susceptibility

What is my risk of crashing from driving distracted?

Perceived severity

- How severe would vehicle damage be?
- ► How severe would injuries be?





What are the pros and cons of device-free driving?

Barriers

- Work demands
- Family pressure
- Information needs
- Urgency of communication

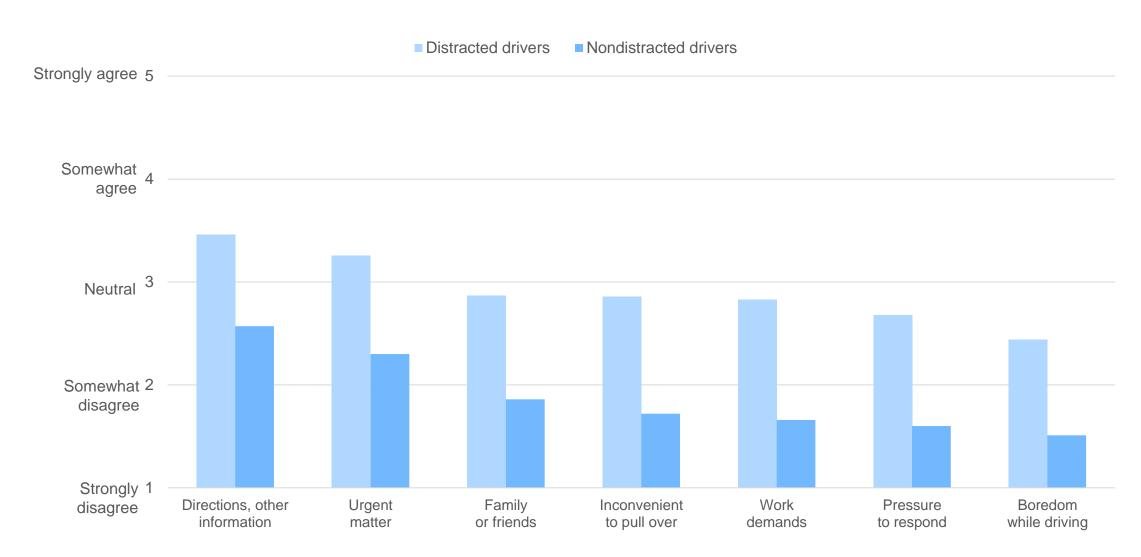
Benefits

- Feeling safer on roads
- Fewer crashes and injuries
- Insurance costs might decrease



Information needs, urgent matters, and family and friends were top barriers for distracted drivers

Mean agreement with barriers





What cues to action might motivate change?

Laws and their enforcement

Community values and norms

Workplace and schools

Family and friends

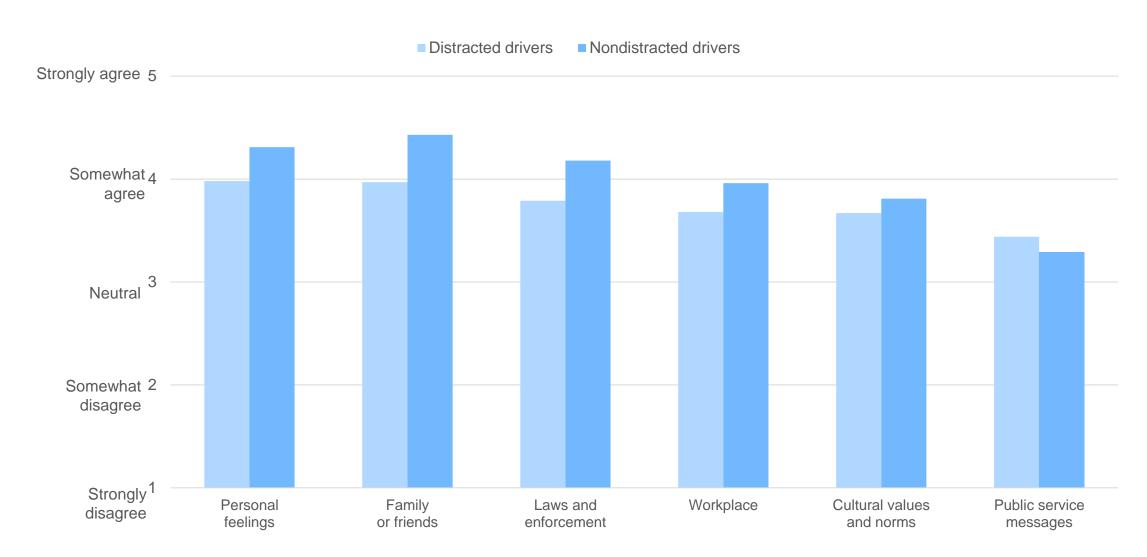
Individual's beliefs, attitudes, knowledge





Personal feelings, family and friends, and laws might motivate behavior change

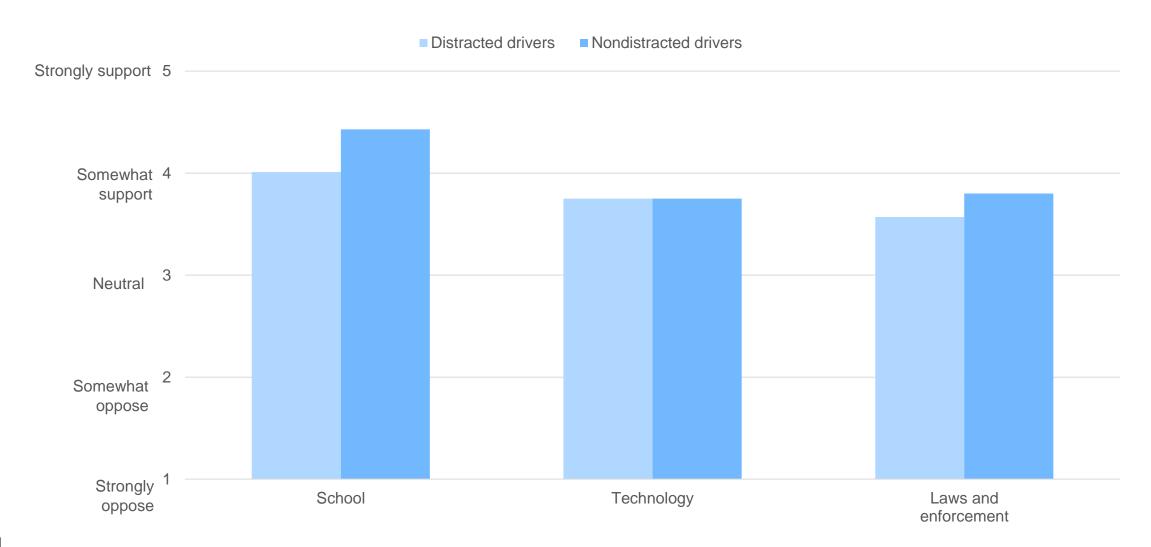
Mean agreement with cues to action





Distracted drivers most strongly supported school campaigns

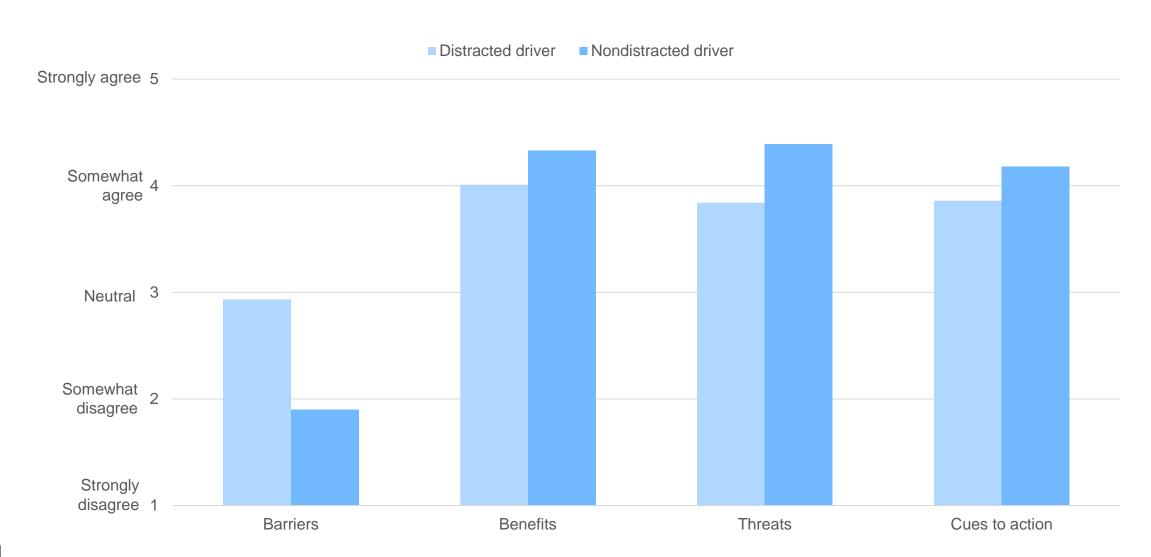
Mean support for cues to action





Distracted drivers had stronger agreement in the barriers

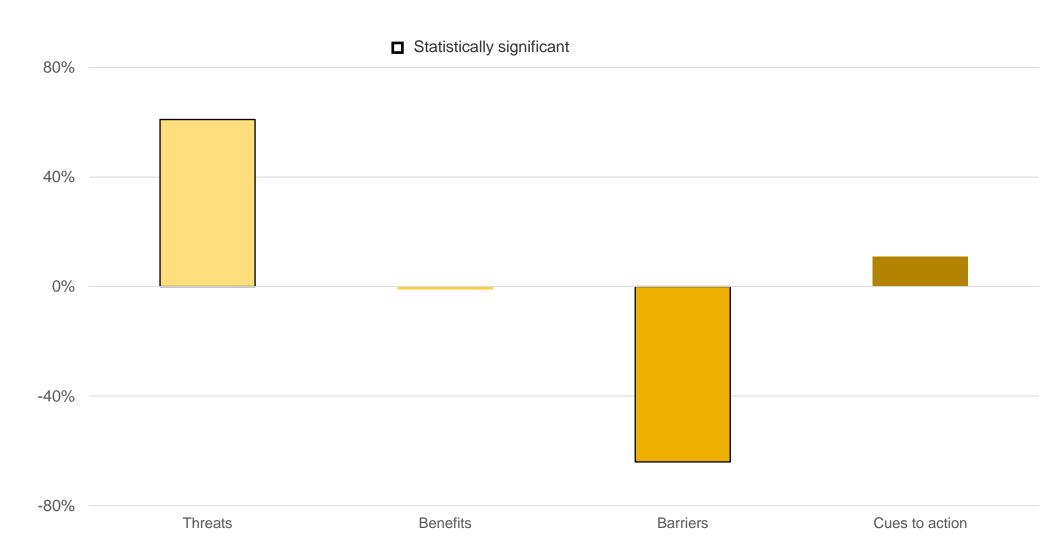
Mean agreement with Heath Belief Model Components





Agreement with threats, disagreement with barriers predicted not driving distracted

Change in odds of not driving distracted vs. driving distracted







Conclusions

Distracted driving is widespread

No single demographic abstains

Handsfree capabilities are used

Some functions could be refined

Distracted drivers

- Downplay threats
- Agree more in barriers

Policy cues were supported and thought to be effective

Key takeaways

Behavior manifests for many reasons

None are mutually exclusive

Multifaceted, systems approach

Account for all constructs

One of many theoretical behavior change models





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