Distracted Driving Among Commercial Drivers

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Center for Health and Safety Culture
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About the Center for Health and Safety Culture
We are an interdisciplinary center serving communities and organizations through research, training, and guidance to cultivate healthy and safe cultures.
Purpose
Changing behavior is not rocket science. It is much more difficult!

[R. Foss, UNC]
Acceptance
Rejection
Can you change behavior?

Influence  Behavior
Sounds like ...

I don’t feel that I should be told what I have to do or not
Example
Definition

Culture? Beliefs

Culture? Behavior

Culture? Artifacts
Goal

Useless

Useful

“Culture”

Beliefs → Behaviors → Artifacts

Explain

Predict

“Culture”

Beliefs

Explain

Predict

Behaviors → Artifacts

Montana State University
Center for Health & Safety Culture

www.CHSCulture.org
Definition

“The system of beliefs shared among groups of users and stakeholders that influence their decisions to behave or act in ways that affect safety (risk of injury).”

[Source: adapted from NCHRP 17-69]
## Naturalistic Study

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Crash Odds Ratio</th>
<th>Prevalence in Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaching for object (non-cell phone)</td>
<td>9.1</td>
<td>1%</td>
</tr>
<tr>
<td>Extended glance duration to external object</td>
<td>7.1</td>
<td>1%</td>
</tr>
<tr>
<td>Cell text (handheld)</td>
<td>6.1</td>
<td>2%</td>
</tr>
<tr>
<td>Total cell (handheld)</td>
<td>3.6</td>
<td>6%</td>
</tr>
<tr>
<td>Total in-vehicle device</td>
<td>2.5</td>
<td>4%</td>
</tr>
<tr>
<td>Cell talk (handheld)</td>
<td>2.2</td>
<td>3%</td>
</tr>
<tr>
<td>Interaction with adult/teen passenger</td>
<td>1.4</td>
<td>15%</td>
</tr>
</tbody>
</table>

Pilot Survey

Qualtrics Purchased Panel of Respondents

- 268 respondents from a national sample (41 states)
- 50% female, ages 18 to 64
- 39% urban, 47% suburban, 15% rural
- 100% drove for work and 100% had an active cell phone
- 27% had been in a crash in the past year (not their fault)
- 17% had been in a crash in the past year (was perhaps their fault)
Distracted Driving Behaviors

“Thinking back over the past 30 days, while driving FOR WORK, have you done the following WHILE THE VEHICLE WAS MOVING?”

• 49% had a conversation on a cell phone while holding it in your hand
• 62% had a conversation on a cell phone without holding it ("hands free")
• 50% typed or read on a cell phone
• 61% adjusted a navigation system
• 85% adjusted the radio, sound system, or vehicle device
• 76% reached for an object in the vehicle
• 69% engaged in a conversation with a passenger in the vehicle
Crash Involvement

- Distracted behaviors were correlated with crashes ($0.36$, $p<0.01$)
- Individuals who reported engaging in distracting behaviors about half the time or more often were $3.2^*$ times more likely to be in a crash

*95% confidence intervals: 1.99 to 5.12
Attitude (Dangerous vs. Safe)

“Imagine you are a PASSENGER in a WORK vehicle and the VEHICLE IS MOVING. How would you feel about the DRIVER engaging in each of the following actions?”

Dangerous
- 79% typing or reading on a cell phone
- 66% having a conversation on a cell phone while holding it in your hand
- 54% adjusting a navigation system
- 54% reaching for an object in the vehicle
- 37% having a conversation on a cell phone without holding it ("hands free")
- 32% adjusting the radio, sound system, or vehicle device
- 21% engaging in a conversation with a passenger in the vehicle

Attitudes (dangerous/safe) correlated with willingness (0.60, p<0.01) and behavior (0.59, p<0.01).
Perceived Norms (expectations)

Respondents who believed their supervisor thought it was OK to engage in distracting behaviors were 6* times more likely to regularly do so compared to those who believed supervisor thought it was NOT OK.

Supervisor expectations matter!

*95% Confidence interval: 3.4 to 10.6
Perceived Control

Respondents who had a high sense of “pressure” to engage in distracting behaviors were 5* times more likely to regularly do so compared to those who had a lower sense of pressure.

Sense of “pressure to engage” matters!

*95% Confidence interval: 2.8 to 9.4
Beliefs Matter!

- Attitudes (safe vs. dangerous)
- Perceived Norms (supervisor expectations)
- Perceived Control (sense of pressure)

These beliefs can be changed!
Strategies

- Organization values (mission)
- Leadership voice.
- Shared voice.
- Onboarding.
- Role of Workplace Rules.
- Intervening (Proactive Traffic Safety).
- Review and reward system.
Other Exciting CHSC Research

• Increasing Seat Belt Use in Rural Communities
• The Role of Psychological Reactance and Moral Disengagement in Seat Belt Use and Aggressive Driving
• Beliefs Behind Driving Under the Influence of Cannabis
• The Role of Parents in Teaching Safe Driving Behaviors
• Growing Safety Culture within DOTs
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Thank you!