Parental Behaviors and Beliefs About Their Children Learning to Drive

Key Findings Report

Prepared for:
Washington Traffic Safety Commission
621 8th Avenue SE – Suite 409
Olympia, WA 98501

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# Contents

Introduction ........................................................................................................................................... 3  
Survey Development ............................................................................................................................. 3  
Survey Methodology ........................................................................................................................... 4  
Key Findings ......................................................................................................................................... 4  
  Concern for Traffic Safety ................................................................................................................. 5  
  Risky/Protective Driving Behaviors Among Parents ......................................................................... 6  
  Three Skills a Youth Should Have To Be a Good Driver ..................................................................... 7  
  Overall Model .................................................................................................................................... 8  
  Using the Five-Step Parenting Process ............................................................................................... 9  
  Teaching Youth About Specific Driving-Related Behaviors ............................................................. 10  
  Willingness ........................................................................................................................................ 11  
  Attitudes ........................................................................................................................................... 12  
  Behavioral Beliefs and Assumptions ................................................................................................. 13  
  Perceived Normative Injunctive Beliefs .............................................................................................. 14  
  Perceived Control ............................................................................................................................... 15  
Summary and Recommendations ........................................................................................................ 16  
  Questions to Foster Meaningful Dialogue ....................................................................................... 17
Introduction

According to the Centers for Disease Control and Prevention, motor vehicle crashes are the leading cause of death for teenagers in the U.S.\(^1\) Crash risk is particularly high immediately after one gets a driver’s license.\(^2\) Bolstering the engagement of parents and those in a parenting role to better prepare young people to drive may be an effective strategy to improve traffic safety for young drivers.

The Washington Traffic Safety Commission (WTSC) engaged the Center for Health and Safety Culture (CHSC) at Montana State University to explore the beliefs and behaviors of parents in Washington State relating to actions they take to teach their children safe driving practices. This report summarizes the key findings from a survey of Washington adults with at least one child between the ages of 6 and 18. The report reviews the survey methodology, summarizes parent behaviors, and then examines the attitudes and beliefs of respondents. Recommendations are provided at the end.

Survey Development

The survey explored parents’ use and beliefs about five steps to help children learn safe driving practices. CHSC developed a five-step process in its research on growing parenting skills. The five steps include getting input from the child, teaching, providing opportunities for the child to practice what they are learning, supporting the child during their practice, and recognizing effort and success by their child to bolster motivation.

To determine which values and beliefs are related to a specific traffic safety decision (like engaging with a child to grow their knowledge and skills about safe driving), the CHSC uses a behavioral model (Figure 1). Each component of the model was assessed on the survey. Most components were assessed with two or more questions.

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\(^2\) Mayhew DR, Simpson HM, Pak A. Changes in collision rates among novice drivers during the first months of driving. Accident Analysis and Prevention 2003;35:683-91.
In addition to the components shown in Figure 1, the survey also included a series of questions to assess the social and emotional skills of the respondent (using the Wong and Law Emotional Intelligence Scale) and questions to assess how frequently respondents engaged in 19 behaviors related to traffic safety. These questions were included to explore potential relationships between social and emotional skills, driving behaviors by parents, and their engagement in teaching safe driving practices to their children.

The CHSC developed a draft of the survey and pilot tested it with a convenience sample of adults (n=151) living in Washington recruited online. To participate in the pilot, the participants had to be over the age of 18, drive a vehicle weekly or more often, and have at least one child between the ages of 6 and 18. The survey was refined based on the pilot testing process.

Survey Methodology

Respondents for the final survey were recruited using a panel of respondents provided by Qualtrics between September 23 and October 10, 2019. In total, 1,304 individuals responded to the survey; 156 did not submit a response; 296 did not qualify (60 did not live in Washington, 4 were either below the age of 18 or over the age of 80, 140 indicated they did not drive often, and 92 did not have a child between the ages of 6 and 18); and 52 were removed because of quality issues (either completed the survey too quickly or indicated they would not provide their best answers).

The final sample included 800 respondents (all with at least one child between the ages of 6 and 18. 53.5% were female; the mean age was 41.0 years (median 40 years, standard deviation 8.3 years); 9.3% were Spanish, Hispanic, or Latino; 84.5% were white; 4.1% were Black or African American; 7.5% were Asian; and 3.4% were American Indian or Alaska Native. Most had a high school degree or more education (11.9% high school only, 22.5% some college, 13.9% Associate’s degree, 26.7% Bachelor’s degree, and 23.4% post-graduate degree). Most (68.3%) had at least one child with a license to drive. While this sample was large and represented the viewpoints of many parents, these results cannot be generalized to all parents.

The internal reliability of the responses comprising the various components of this survey was high (as measured by Cronbach’s alpha). Linear regression modeling showed that 48% of parent behavior was predicted by willingness and intention (F(2,765)=346.8, p<0.001). Similarly, 42% of willingness and intention (F(4,763)=121.8, p<0.001) was predicted by attitudes, perceived norms (injunctive and descriptive), perceived control, concern about traffic safety, and social and emotional skills.

Key Findings

In the subsequent sections, the components of the survey are explored by examining the average (i.e., mean) responses. The bars on each graph represent the 95% confidence interval for the mean. The report reviews

- parents’ concern for traffic safety,
- how often they engage in various behaviors that impact traffic safety,
- three skills they think youth should have to be a good driver,
- their engagement in teaching their child safe driving practices, and
- various beliefs that are associated with their engagement in teaching.

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**Concern for Traffic Safety**

<table>
<thead>
<tr>
<th>Not at all concerned</th>
<th>Moderately concerned</th>
<th>Extremely concerned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2. Means of Concern for Traffic Safety**

**Observations**

- Most parents (89%) indicated they were moderately to extremely concerned about their child learning how to drive safely.

- Most parents (84%) agreed the only acceptable number of deaths and serious injuries on Washington’s roadways should be zero.

- Most parents (88%) agreed the only acceptable number of deaths and serious injuries among their family and friends on Washington’s roadways should be zero.

- Most respondents (61%) agreed that they would like to improve the safety of their driving. This alone is an important finding that motivates investment in strategies to improve driver safety.

- Concern was moderately correlated ($r = 0.25$, $p<0.001$) with willingness and intention to engage in conversations with their child to teach them traffic safety skills. As concern increased, willingness and intention increased.

- Concern was slightly correlated ($r = 0.13$, $p<0.001$) with the social and emotional skills of the respondent. As social and emotional skills increased, concern increased.
Risky/Protective Driving Behaviors Among Parents

Observations

- On average, parents reported frequently engaging in protective behaviors like wearing a seat belt, creating space between other vehicles, choosing to slow down for a yellow light, anticipating the needs of other drivers, driving with extra care around bicyclists and pedestrians, and staying totally focused on the driving task.

- On average, parents reported too frequently engaging in potentially risky behaviors like speeding, driving while distracted, driving after consuming alcohol and/or cannabis, and driving when excessively tired or sleepy.

- On average, parents reported asking others to wear a seat belt more frequently than preventing someone from driving impaired, asking a driver to stop using their cell phone while driving, or asking a driver to slow down.

- Safer driving behaviors were correlated with higher social and emotional skills ($r=0.22$, $p<0.001$). As social and emotional skills increased, safer driving behaviors increased.
Three Skills a Youth Should Have to Be a Good Driver

Parents were asked to name three skills a youth should have to be a good driver. There were no prompts, and respondents could provide any ideas they wanted. Figure 6 is a word cloud of the responses.

Observations

- Skills related to attention, concentration, and awareness were most common among responses. These skills align with growing social and emotional skills with youth so that they are better able to manage their feelings and emotions and stay focused on the driving task.

Figure 4. Word Cloud of Top Skills for a Youth to Be a Good Driver
(“What are three skills a youth should have to be a good driver?”)
Overall Model

Figure 5 shows the means of the components of the overall behavioral model about a parent’s engagement in the five-step parenting process to grow their child’s safe driving beliefs and behaviors.

Observations

- While parents reported favorable beliefs about having these conversations, on average, they did not engage in the five steps very often.
- On average, parents reported a high level of willingness to have these conversations but a lower level of intention. This may explain why they had favorable beliefs but lower levels of actually having these conversations.
- On average, parents had a positive attitude about having conversations with their child to help them learn about safe driving practices.
- On average, parents perceived that others approved of such conversations (i.e., perceived injunctive norms).
- On average, parents reported a high level of control about engaging in these conversations (perceived control).
- All the components in Figure 5 were moderately associated with the social and emotional skills of parents (correlation coefficients ranging from 0.21 to 0.36, p<0.001). Thus, as a parent’s social and emotional skills were higher, they had stronger positive behaviors and beliefs supportive of this five-step process.
Using the Five-Step Parenting Process

The survey asked about how often parents engaged in a five-step parenting process for growing traffic safety skills. The five steps are:

1. Getting input (asking their child about driving to get their child cognitively engaged)
2. Teaching their child about safe driving choices
3. Practicing (by providing opportunities for their child to practice thinking about safe driving choices even before their child can actually drive)
4. Supporting their child’s learning by providing feedback and coaching
5. Recognizing their child’s effort and success by acknowledging their child as they learn about safe driving choices

Parents were asked how often they engage in these steps with their child. Table 1 summarizes their responses.

<table>
<thead>
<tr>
<th>Step</th>
<th>Rarely, Never</th>
<th>Sometimes</th>
<th>Usually, All the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Input</td>
<td>25%</td>
<td>56%</td>
<td>19%</td>
</tr>
<tr>
<td>Teach</td>
<td>10%</td>
<td>53%</td>
<td>37%</td>
</tr>
<tr>
<td>Practice</td>
<td>26%</td>
<td>46%</td>
<td>28%</td>
</tr>
<tr>
<td>Support</td>
<td>20%</td>
<td>49%</td>
<td>31%</td>
</tr>
<tr>
<td>Recognize</td>
<td>19%</td>
<td>43%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Observations

- Overall, many parents reported engaging in the steps sometimes or more often.
- Parents reported getting input less frequently than all other steps. This step is sometimes overlooked by adults when working with youth. However, it is a critical step to make sure the youth is cognitively engaged and thus more likely to learn. Providing guidance to parents about the kinds of questions they might ask may help them engage in this step more.
- Parents reported providing opportunities for children to practice their thinking about safe driving less frequently than other steps. Like getting input, sometimes parents don’t know how to do this or that it can benefit the child’s learning by having them practice their thinking. Providing guidance about how to have children practice thinking may help parents engage in this step more.
- Parents who reported more safe driving practices were more likely to engage in these teaching steps (and to hold supportive beliefs about engaging in these steps).
- Stronger social and emotional skills (among parents) were moderately correlated with more use of these steps ($r= 0.30$, $p<0.001$).
Teaching Youth About Specific Driving-Related Behaviors

The survey asked parents about teaching their child about specific driving-related behaviors (shown in Figure 6).

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Never 1</th>
<th>2</th>
<th>Sometimes 4</th>
<th>5</th>
<th>All the time 6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always wearing a seat belt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not speeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating space between other vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Stop signs/who has the right of way next</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stopping for yellow lights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying potentially risky situations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipating potential needs/actions of other drivers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being aware of what’s happening behind the vehicle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driving with extra care near bicyclists and pedestrians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoiding all distractions while driving (cell phones, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never driving after consuming alcohol or marijuana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never driving when excessively tired or sleepy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asking others to make safer choices (seat belt, no cell)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 6. Frequency of Teaching Children About Specific Safety-Related Behaviors**

(“How often do your TEACH YOUR CHILD about the following?”)

**Observations**

- Parents reported teaching about seat belt use most frequently.
- Parents reported teaching about other behaviors with similar frequency.
- There are opportunities to grow teaching about many traffic safety behaviors.
Willingness

<table>
<thead>
<tr>
<th>Not at all willing</th>
<th>Moderately willing</th>
<th>Extremely willing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>7</td>
<td></td>
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</tr>
</tbody>
</table>

When they are young (ages 6 to 12)

When they are teenager (ages 13 to 15)

When they are learning how to drive (ages 16 to 18)

If it was shown to make your child a better driver

Figure 7. Means of Willingness to Drive Under the Influence of Alcohol and Cannabis

(“How willing would you be to engage in conversations to help your child learn about safe driving practices…”)

**Observations**

- Parents were more willing to engage in these conversations when their children were older. However, there may be significant benefits from starting these conversations when children are young. Parents may not know what is developmentally appropriate for younger children.

- Parents reported they were more willing to engage in these conversations if it was shown that these conversations are effective. Gathering and reporting information to parents about the effectiveness of teaching children safe driving practices may be an important component of engaging parents.

- Most parents (79%) reported they would be moderately or more interested in having access to online resources that could help them engage in conversations about safe driving practices with their children. These online resources may include access to conversation guides, examples, short articles, videos, quick summaries, and other materials to provide guidance on how to engage in the five-step process.

- The willingness and intention of parents to engage in teaching their children safe driving practices was strongly correlated with their reported behavior ($r = 0.64$, $p<0.001$).
Attitudes

<table>
<thead>
<tr>
<th>Stronger</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Neutral</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Stronger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude (average)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silly</td>
<td></td>
<td></td>
<td></td>
<td>Sensible</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worthless</td>
<td></td>
<td></td>
<td></td>
<td>Valuable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boring</td>
<td></td>
<td></td>
<td></td>
<td>Fun</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dangerous</td>
<td></td>
<td></td>
<td></td>
<td>Safe</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Figure 8. Means of Attitudes

(“How do you feel about engaging in conversations with your child to help them learn about safe driving practices?”)

Observations

- Most parents had a positive attitude about engaging in conversations with their children to help them learn about safe driving practices.

- The attitudes of parents were moderately correlated with their willingness and intention to engage (r= 0.42, p<0.001). Growing these positive attitudes will likely increase engagement by more parents.
Behavioral Beliefs and Assumptions

![Figure 9. Means of Level of Agreement With Behavioral Beliefs and Assumptions ("How much do you agree or disagree?")](image)

**Observations**

- On average, parents agreed that they play a critical role in teaching their children about how to drive safely, that their child has been learning about driving since they were very young, and that children learn by observing their parents.
  - All these beliefs were moderately correlated with willingness and intention to engage \((r = 0.34, 0.45, \text{ and } 0.41, \text{ respectively, } p<0.001)\). As the level of agreement increased, parents had higher levels of intention and willingness.

- On average, parents disagreed that driving can only be learned by doing it, that they could not teach their child, and that their child never listens to them.
  - These beliefs were somewhat correlated with a negative attitude \((r = -0.13, -0.15, \text{ and } -0.17, \text{ respectively, } p<0.001)\). As the level of disagreement increased, parents had a more negative attitude.
**Perceived Normative Injunctive Beliefs**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disapprove (1)</th>
<th>Neither Approve Nor Disapprove (3)</th>
<th>Neither Approve Nor Disapprove (4)</th>
<th>Neither Approve Nor Disapprove (5)</th>
<th>Neither Approve Nor Disapprove (6)</th>
<th>Strongly Approve (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>your spouse or partner</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>your child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>most parents in Washington</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>most adults in Washington</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 10. Means of Normative Injunctive Beliefs*

(“Would the following people approve or disapprove if you engaged in conversations with your child to help them learn about safe driving practices?”)

**Observations**

- Most parents approved of engaging in conversations with their children to help them learn about safe driving practices. They also perceived that their spouse or partner approved as well as their child and other adults.

- Perception of approval from others was moderately correlated ($r = 0.36$, $p < 0.001$) with their willingness and intention. As their perception of approval increased, they had higher levels of willingness and intention.
Perceived Control

<table>
<thead>
<tr>
<th>Not at all likely</th>
<th>Moderately likely</th>
<th>Extremely likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling awkward or not knowing what to say to your child about safe driving.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Not feeling good about your own driving skills and therefore not wanting to talk about it with your...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wanting to say something about safe driving to your child but finding them not wanting to talk about it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting angry when driving because of what other drivers do.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 11. Means of Perceived Control and Control Beliefs
(“How likely are the following situations for you?”)

**Observations**

- On average, parents had a moderate to strong sense of control about engaging in conversations with their child to help them learn about safe driving practices.
  - Most parents (76%) reported it would be moderately or extremely easy for them to engage in conversations with their child to help them learn about safe driving practices.
  - Most parents (83%) reported they would be very comfortable engaging in conversations with their child to help them learn about safe driving practices.

- On average, parents felt it was somewhat likely that they might feel awkward or not know what to say to their child about safe driving. Providing materials to parents about what to say and how to say it may reduce this awkward sense.
  - This sense of awkwardness was moderately correlated with their overall sense of control ($r = 0.42$, $p<0.001$). The more parents believed they were likely to feel awkward, their sense of control decreased.

- On average, parents felt it was somewhat likely that they might want to say something to their child, but their child may not want to talk about it. Providing materials to parents about what to say and how to say it may help parents know how to have constructive conversations with their children about safe driving.

- On average, parents indicated it was somewhat likely that they get angry because of what other drivers do. This belief was moderately correlated with good driving skills ($r = -0.44$, $p<0.001$). As parents indicated they were likely to get angry, their driving skills were lower (i.e., more risky, less protective).
Summary and Recommendations

The results showed that most parents were concerned about traffic safety among their children, were engaging in conversations with their children about safe driving, and had positive beliefs about such conversations.

- Most parents (89%) indicated they were moderately to extremely concerned about their child learning to drive safely.
- Most respondents (61%) agreed that they would like to improve the safety of their driving.
- Parents recognized attention, concentration, and awareness as important general skills for safe driving.
- Overall, many parents reported engaging in the five steps sometimes or more often. Parents reported getting input and providing opportunities for children to practice their thinking less frequently than other steps. As a parent’s social and emotional skills increased, they had stronger positive behaviors and beliefs supportive of the five-step process.
- Parents reported a high level of willingness to engage in conversations (but a lower level of intention to actually do it). Parents reported lower levels of willingness to engage younger children (ages 6 to 12).
- Parents reported they were more willing to engage in these conversations if it was shown that these conversations are effective.
- Parents reported positive attitudes about having conversations with their children about safe driving and agreed that they play a critical role in teaching their children about how to drive safely.
- Most parents approved of engaging in conversations with their children to help them learn about safe driving practices. They also perceived that their spouse or partner approved as well as their child and other adults.
- On average, parents felt it was somewhat likely that they might feel awkward or not know what to say to their child about safe driving and thought their child may not want to talk about it.
- Most parents (79%) reported they would be moderately or more interested in having access to online resources that could help them engage in conversations about safe driving practices with their children.

Based on these results, recommended next steps are to:

- Share these results with other stakeholders involved with engaging parents in improving traffic safety among young people. Use the questions listed below to foster constructive dialogue.
- Explore opportunities to grow beliefs supportive of parent engagement in existing strategies and projects.
- Consider developing resources for parents that bolster their supportive beliefs and grow their skills in these conversations. Such resources could include online materials giving parents actual language and examples of how to get input from their child, how to talk to their child in ways that foster learning, and ways to allow their child to practice their thinking as they learn about traffic safety. Materials should be developmentally appropriate and could engage children as young as five years old.
Questions to Foster Meaningful Dialogue

Questions to Focus Collective Attention
- What opportunities can you see that the data are revealing?
- What do we still need to learn about this issue?
- What would someone who had a very different set of beliefs than you do say about these data?

Questions to Reveal Deeper Insights
- What has had real meaning for you from what you’ve seen in the data?
- What surprised you? What challenged you? What encouraged you?
- What needs clarification?
- What’s been your major learning, insight, or discovery so far from these data?

Questions to Create Forward Movement
- What’s possible here?
- What will it take to create change?
- What needs our immediate attention going forward?
