# Risky Driver/Passenger Intentions Across Elementary, Middle, and High School

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## Abstract

The theory of planned behavior was tested using the variables past behavior, attitudes, both subjective parent and subjective peer norms, descriptive peer norms, and sex to predict intention to drive fast and intention to ride in fast cars across three age groups – 5th grade (n=46), 8th grade (n=51) and high school (n=177). Backward elimination regression found the intention to drive fast was significantly predicted by peer subjective norms and past behavior for 5th grade participants; by sex, attitude, and both subjective and descriptive peer norms for 8th grade participants; and by sex, attitude and peer descriptive norm for high school participants. The intention to ride in fast cars was predicted by attitude and past behavior for 5th grade participants; by attitude, past behavior, and peer descriptive norm for 8th grade participants; and by attitude, both peer subjective and descriptive norms, and past behavior for high school participants. These results confirm earlier research demonstrating the usefulness of the TPB model and highlight particularly the importance of peers in shaping the intentions of young people to engage in the risky behaviors of driving fast and riding with those who drive fast.

## Objective

The theory of planned behavior (TPB; Ajzen, 1985; Fishbein & Ajzen, 1975) has been applied to a number of driving safety topics. Examples include intention to speed or comply with speed limits (Elliott, Armitage & Baughan, 2007; Lawton, Parker & Stradling, 1997; Warner & Åberg, 2006), intention to commit driving violations (Parker, Manstead, Stradling & Reason, 1992) and even intention to violate parental driving rules for adolescents (Desrichard, Roché & Bègue, 2007). The current study makes use of the TPB model to compare 5th graders, 8th graders and high school (HS) students using the variables of attitudes, subjective and descriptive norms for peers, and subjective norms for parents to predict intention to speed and intention to ride with a speeding driver.

## Method

***Participants and procedures***

- Participants recruited by letter to parents
- Recruited from U.S. southern county school district with mix of urban (midsized city) and rural
- Surveys administered via computer and paper and pencil

**Table 1**
**Demographics**

| Age group | Age range | Race | | | Sex | | Total N |
|---|---|---|---|---|---|---|---|
| | | White | Black | Other | Male | Female | |
| 5th grade | 9 – 11 | 28 | 10 | 8 | 26 | 20 | 46 |
| 8th grade | 13 – 15 | 29 | 19 | 3 | 19 | 32 | 51 |
| High school | 16 – 18 | 119 | 50 | 8 | 81 | 96 | 177 |

***Measures***

- Attitudes – measured on computer with "like/dislike" keys
  - *"drive fast" or "ride in fast cars" for 5th and 8th grades"*
  - *"speeding" and "riding with people who speed" for HS*
- Subjective Norms – paper and pencil (scale -3 to +3)
  - *"my parents (friends) think I should ride in fast cars" for 5th and 8th grades*
  - *"my parents (friends) want me to drive over the speed limit" or "my parents want me to ride in fast cars for HS*
- Descriptive norm – paper and pencil (1= all, to 5 = none)
  - *"About how many of your friends ride in fast cars?" for 5th and 8th grades*
  - *"About how many of your close friends ride with people who speed?" for HS*
- Past behavior – number response (0-7)
  - *"About how many days in the past week did you ride in fast cars?" for 5th and 8th grade*
  - *"On how many days in the past week did you drive 10 mph or more of the speed limit?" for HS*
- Intention – paper and pencil (1 = definitely yes to 4 = definitely not)
  - *"I will drive fast when I get my license" and "I will ride in a fast car soon" for 5th and 8th grades*
  - *"Within the next two weeks, I believe I will drive fast" and "Within the next two weeks, I will ride with someone who speeds" for HS*

## Results

**Predictors of the behavioral intention to drive fast or ride with fast drivers**

Multiple regression analyses using backward elimination procedures tested the ability of TPB variables (attitudes about going fast, subjective and descriptive norms) to predict the behavioral intention to drive fast or ride with fast drivers.

The models tested included attitudes, subjective norms for parents and peers, descriptive norms for peers, past behavior, and sex of participant. Six models were tested predicting (1) the intention to drive fast and (2) the intention to ride with fast drivers for each of the three age groups – 5th graders, 8th graders and high school students. The final models for each of the analyses are presented in Tables 2 and 3.

**Table 2**
**Driving Fast**
**Final multiple regression models using backward elimination procedure**

| Intention: | I will drive fast when I get my driver's license | β | t |
|---|---|---|---|
| 5th grade | Sex | -- | -- |
| Adj. $R^2$ = .455 | Ride in fast cars (attitude) | -- | -- |
| F(2,38) = 17.71 | My parents want me to ride in fast cars (parent subjective norm) | -- | -- |
| | My friends want me to ride in fast cars (peer subjective norm) | -.526 | -3.933 |
| | The number of days rode in fast cars in the past week (past behavior) | -.264 | --1.969 |
| | How many friends ride in fast cars? (peer descriptive norm) | -- | -- |
| 8th grade | Sex | .202 | 1.813 |
| Adj. $R^2$ = .500 | Ride in fast cars (attitude) | -.228 | -1.981 |
| F(4,44) = 13.00 | My parents want me to ride in fast cars (parent subjective norm) | -- | -- |
| | My friends want me to ride in fast cars (peer subjective norm) | -.312 | -2.241 |
| | The number of days rode in fast cars in the past week (past behavior) | -- | -- |
| | How many friends ride in fast cars? (peer descriptive norm) | .390 | 2.827 |
| **Intention:** | **Within the next two weeks, I believe I will drive fast** | | |
| High school | Sex | .139 | 2.200 |
| Adj. $R^2$ = .348 | Speeding (attitude) | .413 | 6.225 |
| F(3,172) = 32.16 | My parents want me to drive over the speed limit (parent subjective norm) | -- | -- |
| | My friends want me to drive over the speed limit (peer subjective norm) | -- | -- |
| | Number of days in past week drove 10 mph or more over the speed limit (past behavior) | -- | -- |
| | Number of close friends who drive fast (peer descriptive norm) | -.252 | -3.905 |

p < .10 p < .05 p < .01

**Table 3**
**Ride with fast driver**
**Final multiple regression models using backward elimination procedure**

| Intention: | I will ride in a fast car soon. | β | t |
|---|---|---|---|
| 5th grade | Sex | -- | -- |
| Adj. $R^2$ = .345 | Ride in fast cars (attitude) | -.316 | -2.337 |
| F(2,38) = 11.53 | My parents want me to ride in fast cars (parent subjective norm) | -- | -- |
| | My friends want me to ride in fast cars (peer subjective norm) | -- | -- |
| | The number of days rode in fast cars in the past week (past behavior) | -.434 | -3.207 |
| | How many friends ride in fast cars? (peer descriptive norm) | -- | -- |
| 8th grade | Sex | -- | -- |
| Adj. $R^2$ = .693 | Ride in fast cars (attitude) | -.459 | -4.969 |
| F(3,46) = 37.84 | My parents want me to ride in fast cars (parent subjective norm) | -- | -- |
| | My friends want me to ride in fast cars (peer subjective norm) | -- | -- |
| | The number of days rode in fast cars in the past week (past behavior) | -.171 | -1.858 |
| | How many friends ride in fast cars? (peer descriptive norm) | .408 | 4.242 |
| **Intention:** | **Within the next two weeks, I believe I will ride with someone who speeds** | | |
| High school | Sex | -- | -- |
| Adj. $R^2$ = .223 | Riding with people that speed (attitude) | .189 | 2.680 |
| F(4,171) = 13.57 | My parents want me to ride in fast cars (parent subjective norm) | -- | -- |
| | My friends want me to ride in fast cars (peer subjective norm) | .209 | 2.985 |
| | Number of days in past week drove 10 mph or more over the speed limit (past behavior) | .173 | 2.474 |
| | Number of close friends who ride with people who speed (peer descriptive norm) | -.189 | -2.662 |

p < .10 p < .05 p < .01

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**5th grade:**

- Intention to drive fast when old enough to drive was predicted by the subjective peer norm and past behavior.
- Intention to ride in a fast car soon was significantly predicted by attitude and past behavior.

**8th grade:**

- Intention to drive fast when old enough to drive was significantly predicted by attitude, subjective peer norm, and descriptive peer norm.
- Intention to ride in a fast car soon was predicted best by attitude, past behavior, and descriptive peer norm.

**High school:**

- Intention to drive fast in the next two weeks was predicted best by attitudes, descriptive peer norm, and sex.
- Intention to ride with someone who speeds in the next two weeks was significantly predicted by attitude, past behavior and both subjective and descriptive peer norms.

## Conclusion

The study confirms earlier research regarding the usefulness of the TPB model in predicting intentions, in this case, to drive fast or ride with fast drivers. Attitude toward fast driving played a significant predictive role for intentions in 5 of the 6 models tested. Past behavior played a significant predictive role for intentions in 4 of the 6 models. These two variables, as expected, are generally good predictors of behavioral intentions at any age.

Looking across the three age groups highlights the developmental nature of social influence across ages. For 5th graders, only one norm was predictive of behavioral intentions. In contrast, for 8th graders and HS students, both subjective and descriptive peer norms were important, with the descriptive norms contributing to prediction of both driving fast and riding with fast drivers for both 8th graders and high school students.

In addition to the central role of friends for the 8th grade and HS students, the sex of the participant was also an important predictor, as gender stereotypes for risk-taking begin to affect behavior in early adolescence.

It was expected that parents would have some influence in the youngest group, but the parental subjective norm was not a significant contributor to the models. Perhaps parents' impact on children's intentions is conveyed through the reported past behavior of "riding in fast cars," which most likely reflects the driving habits of the parents with whom the children are riding. In this light, the importance of their own influence should be kept in mind by parents. Parents are influencing their young children in how they will come to think about the dangers of driving fast later on. Parents need to be good examples to their children at an early age and talk to them about the dangers of fast driving long before they apply for a driving permit, for the parent influence will later have to compete with peer influences as their children reach adolescence. Parents also should be aware of peer influences on their adolescents. Like other risky behaviors (drinking, drug use and early sex without protection), what adolescents view to be the norm for their peers as concerns speed will influence whether they will indeed speed. Adolescents who have friends who do not speed will be less likely to speed themselves.

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