# Survey Participants

To assess seat belt use among high school students and their beliefs about seatbelt use, surveys were given twice, once prior to receiving educational materials and once after receiving the materials. Pre and post surveys were not matched by student, however. The initial round of surveys had 96 students participate, and the second had 77 students. The majority of students who took the survey were 14, 15 or 16 years of age. About two-thirds of participants were male. Seventeen students in both samples had driver permits, and two students in the first sample and seven in the second sample had a driver’s license. A majority of students did not have access to a car.

# Seatbelt Use Behavior

The first half of the survey addressed the frequency of seatbelt use depending on the seating position in the vehicle. There were no statistically significant improvements between pre- and post-intervention surveys, but further analysis between questions did indicate significant differences in seatbelt use depending on where they were sitting in the vehicle. Students reported that they always or almost always wore a seatbelt while driving 74-76% of the time, 77-81% of the time while in the passenger seat and 48-50% of the time when sitting in the back seat. There was a statistically significant difference for both driver and passenger seats when compared to the back seat at the 95% confidence level (pre-intervention: t=3.03 and 4.43, respectively; post-intervention: t=3.62 and 4.53, respectively).

There was a noticeable, but not significant difference in seatbelt use between the week and weekend (76% and 65% respectively, pre-intervention) for those that always or almost always wore a seatbelt, but this difference was not present post-intervention (t=0.88). Surprisingly, there was not a statistically significant difference among students who always or almost always wore their seatbelt when adults were in the car compared to when their friends were in the car (t=0.74, pre; 0.43, post). However, there was a decrease in the percentage of students for this measure: 76% with adults and 71% with friends, post-intervention (minimal difference pre-intervention). Over 30% of students stated that they never, almost never or sometimes wore their seatbelt when their friends were in the car.

The final question for seatbelt use behaviors was used a measure to indicate effective behavior change. There was an increase (from 74% to 78%) in the number of students who responded always or almost always to the following question: “In the next month, how often will you wear a seat belt every time you are in the car?” This increase was not statistically significant (t=0.56).

# Seatbelt Use Beliefs

The final set of survey questions addressed beliefs individuals had about seatbelt use. There were no statistically significant differences between pre- and post-intervention surveys for the belief questions, or between genders. Two belief statements compared beliefs about the efficacy of seat belts: whether seatbelts saved people from getting hurt in a car accident or saved them from dying in a car accident. Although not statistically significant (t=0.06, pre; 1.04, post), there was a decrease in the percentage of students who agreed with these statements. In the preliminary survey, over 96% of students agreed or strongly agreed that seatbelts saved people from getting hurt, but only 85% agreed or strongly agreed that they saved people from dying in a car accident. The corresponding percentages for the post-intervention survey were 91% and 84%, respectively.

The final question of the survey was included to determine if an individual foresaw a belief change, post intervention. There was not a statistically significant change resulting from the intervention (t=0.29), but there was a slight increase in the percentage of students who agreed or strongly agreed with this statement, “It is important for me to wear a seatbelt every time I am riding in a car”, from 92% to 95%.

# Key Differences

After conducting several t-tests on each of the survey questions, no statistically significant (α=0.10) differences were found between pre and post surveys (test done on aggregate data since individuals were not matched between the tests), although most questions saw an improvement (See Graph 1). It should be noted, however, that a gender difference did exist in the surveying. Between genders in the pre and post survey analysis, a greater frequency of males reported high frequency of seatbelt use than females. This same association was not as vividly apparent in the questions pertaining to beliefs about seatbelt use between genders. Even though distinct differences between pre- and post- surveys were not evident, analyzing the data in aggregate did allow for general assessments of seatbelt use in the population. Other interventions on seatbelt use among adolescents could be based on the pilot data for this specific population. For further studies, focusing on gender differences in seatbelt use and the factors that contribute to seatbelt use specific to gender would inform future interventions.

**Graph 1. Differences in pre- and post-intervention survey seatbelt use questions.**