

# A Survey of Americans' Crash Histories

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+ other students in CE392E, UT Austin, Fall 2011 & Spring 2012*

Dear Respondent,

The Transportation Engineering Program in the Department of Civil, Architectural, and Environmental Engineering at **The University of Texas at Austin** is conducting a research study to explore the **motor vehicle crash** and injury risks of individuals. More than **30,000** Americans are **killed** in **traffic crashes** each year, and more than 3 million are injured. This research project seeks to better understand what factors put people at greatest risk of crashing, particularly those in crashes that are disabling and fatal.

- The survey will take **15-20 minutes** to complete.
- The survey will ask questions about **you**, your **vehicle**, and your traffic **crash history**.
- Your individual responses are **CONFIDENTIAL**. No names or other identifying information will be used in data analysis.
- You are not obligated to participate in the survey and you can stop at any time. But your assistance will greatly facilitate our research and **save lives**.
- **Your input is VERY IMPORTANT**, since it is critical that all types of drivers, passengers, cyclists, and pedestrians be represented in this survey.

If you have any questions or comments about this study, please feel free to contact me personally at (512) 471-0210. If you have any questions about your rights as a research participant, please contact the Office of Research Support at (512) 471-8871. Your completion of the survey indicates your willingness to participate in the study.

*Thank you very much* for your time and cooperation.

Sincerely,



Dr. Kara Kockelman  
Professor of Transportation Engineering & Faculty Sponsor  
<http://www.ce.utexas.edu/prof/kockelman/>

*Note: Many of the following tables had drop-down options for response, in the on-line survey.*

1. Please list and describe all the **vehicles** in your **household** in the table below.

	Make (e.g. Honda, Ford)	Model (e.g. Civic, Explorer)	Type	Model Year	Is this Vehicle Insured?		Indicate your primary vehicle (one you use most)
					Yes	No	
Vehicle 1							
Vehicle 2							
Vehicle 3							
Vehicle 4							
Vehicle 5							
Vehicle 6							
I do not own a vehicle (mark this as primary and move on)							

2. How many **years** have you been a **licensed** driver?

3. Have you ever had your **license suspended** or **revoked**?

4. Do you have a **commercial driver's license**?

5. How many **moving violations** (ex. speeding tickets, but NOT parking tickets) have you received in the last 10 years?

6. Approximately how many **miles** do you **drive** on a typical **weekday**? (miles per day)

7. Approximately how many **miles** do you **drive** on a typical **Saturday** or **Sunday**? (miles per day)

8. Approximately how many **miles** on average do you **drive per year**? Please include daily trips and long distance trips.

*Example: If you drive 30 miles/day on 260 weekdays per year, 50 miles/day on 104 weekend days per year, and 1000 miles on a road trip, your annual mileage is:  $30 \times 260 + 50 \times 104 + 1000 = 14,000$  miles*

9. Approximately how many **miles** on average do you **ride in a car as a passenger per year**? Please include daily trips and long distance trips and estimate using the same method as vehicles miles driven in question 10.

10. Approximately how many **miles** on average do you **ride on a bicycle per year**? Please include daily trips and long distance trips and estimate using the same method as vehicle miles driven given in question 10.

11. How often do you wear your **seat belt** while driving/riding in a car?

- Rarely** (less than 25% of the time)
- Occasionally** (25% to 49% of the time)
- Sometimes** (50% to 89% of the time)
- Usually** (90% to 99% of the time)
- Always** (100% of the time)

12. How many of the following do you do **at least once a week while driving?** (Please check all that apply.)

- Listen to the radio/music
- Text
- Talk on cell phone
- Talk on cell phone with hands free device
- Eat
- Drink
- Smoke

13. How many hours of **sleep** do you get per night, on average?

14. How many **times per week** do you **exercise?** (Count exercise as a physical activity lasting at least 30 minutes)

15. How many **alcoholic beverages** do you consume in an average **week?**

16. Have you ever been convicted of a **misdemeanor** or **felony?**

17. Do you wear **corrective lenses** (glasses or contacts)?

18. **If** you wear **corrective lenses**, in what **year** did you start wearing them?

19. Please list any **defensive driving** courses you have taken.

	Year	Primary Reason (ex. traffic citation dismissal, insurance discount)
Course 1		
Course 2		
Course 3		
Course 4		
Course 5		

20. Have you ever **owned a motorcycle** (excluding mopeds)? **\*\*If NO, go to question 41.\*\***

21. Do you **currently ride** your **motorcycle** (excluding mopeds)?

22. If you **no longer ride** a motorcycle, what is the **primary reason** why you **stopped**?

- It was **too costly** to keep my motorcycle.
- I needed **seating space** for other passengers.
- I wanted more **cargo space** for (non-passenger) items.
- My **ability** to handle a motorcycle was **inadequate**.
- I did **not enjoy** riding a motorcycle.
- I had **safety concerns**.
- I was involved in a **motorcycle crash**.
- I **didn't need** the motorcycle anymore.
- Other Please enter an 'other' value for this selection.

23. If you **no longer ride** a motorcycle, what **other reasons** caused you to stop? (Please check all that apply).

- It was **too costly** to keep my motorcycle.
- I needed more **seating space** for other passengers.
- I wanted more **cargo space** for (non-passenger) items.
- My **ability** to handle a motorcycle was **inadequate**.
- I did **not enjoy** riding a motorcycle.
- I had **safety concerns**.
- I was involved in a **motorcycle crash**.
- I **didn't need** the motorcycle anymore.
- Other Please enter an 'other' value for this selection.

24. How often do/did you **ride** a **motorcycle**?

- Less than once a month
- One or more times per month
- One or more times per week
- Almost every day

25. How **long** did you ride or how long have you been **riding** a **motorcycle**? (in years)

26. Please list any formal **motorcycle training programs** you have participated in. List the most recent training first. (Choose from Basic/Beginner Riding, Intermediate Riding, and Advanced/Experienced Riding.)

	Year	Training Type
<b>Training 1</b>		
<b>Training 2</b>		
<b>Training 3</b>		
<b>Training 4</b>		
<b>Training 5</b>		

27. You ride your motorcycle to...

- Get to/from **work, school, and errands**
- For **recreation** and leisure
- For **both** of the above

28. How **far** do you usually ride on an **average trip**? (miles)

29. Approximately how many **miles** on average do you **ride a motorcycle each year** (or how many miles did you ride when you had a motorcycle)? (Please include both daily trips and long distance trips.)

*Example: If you drive 30 miles/day on 260 weekdays per year, 50 miles/day on 104 weekend days per year, and 1000 miles on a road trip, your annual mileage is:  $30 \times 260 + 50 \times 104 + 1000 = 14,000$  miles*

30. How often do you **wear a helmet**?

- Always
- Usually
- Sometimes
- Occasionally
- Never

31. Would you wear a **proper helmet** if mandated by **law**?

- Yes
- No

32. How many **CC's** is your motorcycle **engine**?

*CC: Cubic Centimeters (ex: Honda Rebel has a 234 cc engine, Yamaha V Star classic has a 649 cc engine, Harley Davidson Night Rod has a 1250 cc engine, and Yamaha Raider has a 1854 cc engine)*

engine.)

34. List any **motorcycle organizations** you are a part of

	Name	Year Involvement Began
Organization 1		
Organization 2		
Organization 3		

35. What **safety precautions/advice** would you give to **other motorcyclists**? Please **rank** the following from most important to least important, with 1 being the most important and 14 being the least important.

- \_\_\_\_\_ Wear a **helmet**.
- \_\_\_\_\_ Don't **drink** and ride.
- \_\_\_\_\_ Don't ride under the influence of **drugs**.
- \_\_\_\_\_ Slow down when going around a **tight curve**.
- \_\_\_\_\_ Slow down when going **downhill**.
- \_\_\_\_\_ Take a motorcycle **training course**.
- \_\_\_\_\_ Be careful when the road is **wet or icy**.
- \_\_\_\_\_ Avoid **construction zones** and **uneven pavement**.
- \_\_\_\_\_ Don't **speed** excessively.
- \_\_\_\_\_ Follow the **rules of the road**.
- \_\_\_\_\_ Learn how to **properly lean** when going into a curve or turning.
- \_\_\_\_\_ Watch out for **other vehicles** – drivers may not see you.
- \_\_\_\_\_ Don't **weave** in and out of traffic.
- \_\_\_\_\_ Use **turning signals** when turning or changing lanes.

36. Other than those listed above, do you have other **safety precautions/advice** to give to **other motorcyclists**? Please describe in your own words.

37. What is your greatest **motorcycle-related safety concern** regarding **other road users**? Please rank the following from 1 to 7, with 1 being the most important and 7 being the least important.

- \_\_\_\_\_ Drivers who don't see motorcycles at **intersections**.
- \_\_\_\_\_ Drivers who don't see motorcyclists **hidden behind other vehicles**.
- \_\_\_\_\_ Drivers who don't realize **motorcyclists are slowing** (since they may be downshifting

instead of braking).

\_\_\_\_\_ Drivers who think that motorcyclists will "**get out of their way**" when turning or merging.

\_\_\_\_\_ Drivers who **misjudge** motorcyclist distance or speed.

\_\_\_\_\_ Drivers who **misunderstand rider intentions** when motorcyclists shift within a lane to avoid debris.

\_\_\_\_\_ Drivers who don't realize that a motorcyclist is **more vulnerable** than persons in other vehicles.

38. Other than those listed above, do you have other **motorcycle-related safety concerns** regarding **other road users**? Please describe in your own words.

39. What is your greatest **motorcycle-related safety concern** that **transportation professionals** (designers, planners, construction engineers, and maintenance personnel) should be aware of? Please rank the following from 1 to 10, with 1 being the most important and 10 being the least important.

\_\_\_\_\_ Roadway design with guardrail, concrete barriers, cable rail or other **roadside barriers**.

\_\_\_\_\_ **Poor roadway surface conditions** (potholes, cracking, etc.).

\_\_\_\_\_ Pavement surface difficult to ride on during **construction**.

\_\_\_\_\_ **Debris** on roadways.

\_\_\_\_\_ Steep **drop-offs** from one road surface to the next during construction.

\_\_\_\_\_ Roadway **cross-slope** (steep embankment, perpendicular to the rider).

\_\_\_\_\_ Roadway **grade** (steep uphill or downhill, in-line with the vehicle).

\_\_\_\_\_ Tight horizontal roadway **curves**.

\_\_\_\_\_ Steep **shoulder drop-offs**.

\_\_\_\_\_ **Traffic signals** that don't detect presence of motorcycles.

40. Other than those listed above, do you have other **motorcycle-related safety concerns** that **transportation professionals** (designers, planners, construction engineers, and maintenance personnel) should be aware of? Please describe in your own words.

41. In 26 U.S. states, **red light cameras** (traffic enforcement cameras that capture images of vehicles **entering intersections during red traffic lights**) are used to improve the safety of intersections. Most studies show that these cameras **reduce crashes involving injury by 25% to 30%**, though others believe the use of red light cameras is primarily a source of revenue for cities. Do you support the use of red light cameras?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**  
           

42. **Automated Speed Enforcement** (ASE) technologies, such as **speed detection cameras**, are used in 13 U.S. states to automatically issue tickets to speeding drivers. The primary reason for managing traffic speed is to improve safety. Studies have found that **ASE reduces the likelihood of injurious and fatal crashes** by an average of **17%**. Do you support the use of ASE?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**  
           

43. If your local police department started using **ASE** technologies, at what speed **over the speed limit** (e.g. 0, 5, or 10 mph more than the speed limit) do you think is reasonable before the driver is **automatically ticketed for speeding**?

44. **Speed governors** are devices used to **limit the maximum speed** of vehicles. Studies indicate that **higher speeds lead to more frequent and deadlier crashes**. Would you support **installing** speed governors on all **new vehicles**?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**  
           

45. The **current maximum speed limit** in any US state is **85 mph**. If **manufacturers** were **required** to install **speed governors** on all new vehicles **what speed** do you think they should be installed at? (Please choose a value from 60 mph to 200 mph)

46. **Breathalyzer ignition locks** require the driver to blow into a device before the car can be started. The device makes sure that the **blood alcohol level is below the legal limit**. These devices, costing on average \$75 per month, have been mandated by six states in the U.S. for Driving Under Influence (DUI) offenders. Do you support requiring ignition locks for persons **convicted at least once for DUI**?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**

47. Do you support requiring **breathalyzer ignition locks** for persons with **multiple DUI convictions**?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**  
                                                                                       

48. The **vehicle** of a **DUI offender** may be **seized by the state** and held in custody for a certain period (ranging from 10 to 100 days). This is known as **vehicle impoundment**, and 27 states within the U.S currently punish DUI offenders with vehicle impoundment. Do you support vehicle impoundment for DUI offenders?

**Strongly Support**   **Somewhat Support**   **Neutral**   **Somewhat Oppose**   **Strongly Oppose**  
                                                                                       

49. You think current **speed limits** on highways are:

- Too low** (I would like to see higher speed limits)
- About right** (I think current speed limits are fine)
- Too high** (I would like to see lower speed limits)

50. At what **speed** do you usually **drive** on **freeways**?

- At** speed limit
- I never drive on freeways
- Below** speed limit (indicate mph below speed limit) Please enter an 'other' value for this selection.
- Above** speed limit (indicate mph above speed limit) Please enter an 'other' value for this selection.

51. How much would you be **willing to pay** (in dollars) for a car feature that would **increase** your chance of **surviving** a severe crash by **10%**?

Please rate yourself against the **average driver** in the following contexts:

52. Do you consider yourself a **safer** or **less safe driver** than most drivers?

- Much safer
- Average
- Less safe
- I do not drive

53. Do you consider yourself **more skilled** or **less skilled** than most drivers?

- More skilled
- Average
- Less skilled
- I do not drive

54. Do you **obey traffic rules** more or less often than the average driver?

- More often
- Average
- Less often
- I do not drive

55. What **zip code** do you live in? (5-digit)

56. What is your **age**? (In years)

57. What is your current **marital status**?

- Single
- Married
- Divorced
- Other

58. What is your **gender**?

- Male
- Female

59. What is the **highest level of education** you have obtained?

- Less than high school
- High school diploma (or equivalent)
- Some college (associate or technical degree)
- Bachelor's degree
- Graduate or professional degree (masters or doctoral degree)

60. What is your **employment** situation?

- Employed full time
- Employed part time
- Unemployed but looking for work
- Not working and not looking for work
- Student
- Retired
- Unable to work
- Other

61. How many **workers** (full-time and part-time) live in your household?

	<b>Full-time Workers</b>	<b>Part-time Workers</b>
#		

62. How many **adults** (18 and older, including yourself) and **children** (17 and younger) are in your household?

	<b>Adults</b>	<b>Children</b>
#		

63. How many **licensed drivers** live in your household?

64. What is your **annual household income**?

- \$0 to \$24,999
- \$25,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

65. Have any of your **immediate family members** ever been **injured** or **killed** in a crash? Please list the **most severe crashes first** in the table below, listing each involved person separately, even if they were in the same crash and suffered similar injuries.

	Relation	Approx. Year of Crash	Injury Outcome	Key Reason for Crash
Crash 1				
Crash 2				
Crash 3				
Crash 4				
Crash 5				
Crash 6				
Crash 7				

66. In the table below, please provide details of any **crashes which you have been involved in** as a driver, passenger, pedestrian, or bicyclist in which **no one was injured**. Include all non-injurious crashes, including fender benders.

	Your role	Year of crash	Type of vehicle you were in	Key reason for crash	Type of crash	Number of vehicles involved	Number of people involved	Were you assigned any fault by insurance or police?		
								Yes	No	Don't know
Crash 1								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 2								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 3								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 4								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 5								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 6								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 7								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 8								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 9								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 10								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 11								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crash 12								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

67. How **many crashes** have **you** been involved in (as a driver, passenger, bicyclist, or pedestrian) in which someone was **killed or sustained injury**?

For the **first fatal/injurious crash** you were involved in...

68. When the crash occurred, you were...

- Driving** a vehicle.
- A **passenger**.
- Hit as a **pedestrian** or **cyclist**.

69. Was the driver of your vehicle **assigned fault** by the police or insurance agency?

- Yes
- No

70. What **type of vehicle** were you in?

- Sedan / Wagon / Hatchback (Car)
- SUV
- Pickup Truck
- Van
- Sports Car
- Motorcycle
- Bicycle
- I was a pedestrian
- Other

71. What **other type of vehicles** were involved in the crash? (Check all that apply)

- Sedan / Wagon / Hatchback (Car)
- SUV
- Pickup Truck
- Van
- Sports Car
- Motorcycle
- Bicycle
- Commercial/Heavy Duty Truck
- Pedestrian
- Other

72. In what **year** did the crash occur?

73. What were the **lighting** conditions?

- The crash occurred during **daylight** hours.
- The crash occurred at **night** in a **lighted** area.
- The crash occurred at **night** in a **dark** area.

74. What type of **setting** did this crash occur in?

- Urban
- Suburban
- Rural

75. What is the name of the **closest city** (and state) in which the crash occurred?

76. What were the **traffic conditions** when the crash occurred?

- Heavy
- Moderate
- Light

77. What was the **purpose** of the trip for which you were traveling?

- To/from **school** or **work**
- To/from **shopping** or **errands**
- To/from **social** or **recreational** events
- Other

78. What was the approximate **length** of this trip (**in miles**)?

79. How far was your **home** from the crash site (**in miles**)?

80. How many persons were **involved** in the crash (including passengers)?

81. How many persons sustained **minor injuries**?

82. How many persons sustained **major injuries** but survived?

83. How many persons were **killed**?

84. How many **occupants** (including you) were in (or on) **the same vehicle** as you at the time of the crash?

85. Did the crash occur at an **intersection**?

- Yes
- No

86. What **type of intersection** did the crash occur?

- Traffic light
- Stop sign
- Yield sign
- Roundabout

87. **Where** did the crash occur?

- On a **road segment**
- On a **freeway ramp**
- At a **driveway**
- In a **parking lot**
- Other

88. Did the crash occur on a **curved** road?

- Yes
- No (road was straight)
- Crash did not occur on a road

89. When the crash occurred, you were traveling

- Downhill
- Uphill
- At the top of a hill
- On level (flat) road/ground

90. What **type of crash** was it?

- Rear-end
- Head-on
- Sideswipe
- Angle Collision (e.g. T-bone)
- Run off the Road
- Hit a(n) ... (e.g. fixed object, animal, pedestrian, bicyclist)
- Other

91. What was the **weather** like when the crash occurred?

- Snow/ice
- Rain
- Fog
- Very windy
- Clear or Cloudy, no rain
- Other

92. What was the **speed limit** on the road (approximate if necessary)? (miles per hour)

93. **Approximately how fast** (in miles per hour) was the vehicle you were in traveling **before** any **braking** was used to moderate or avoid the crash?

94. Which of the following do you consider the **primary reason** for the crash occurring?

- Vehicle Malfunction (e.g. Flat tire / brake failure)
- Distraction (Cell phone, PDA use, conversation, etc.)
- Under the influence of illegal/LEGAL drugs or alcohol
- Driver fatigue
- Confusing roadways or signs
- Weather conditions
- Poor pavement conditions
- Unfamiliarity with the area
- Reckless driving
- Inattention
- Bad mood, anxiety, etc.

- Congestion
- Poor sight distance/visibility
- I don't know
- Other

95. Which of the following do you consider **other contributing factors** to the crash occurring?  
(Please **check all that apply.**)

- Vehicle malfunction (e.g., flat tire or brake failure)
- Distraction (Cell phone, PDA use, conversation, etc.)
- Under the influence of illegal/legal drugs or alcohol
- Driver fatigue
- Confusing roadways or signs
- Weather conditions
- Poor pavement conditions
- Unfamiliarity with the area
- Reckless driving
- Inattention
- Bad mood, anxiety, etc.
- Congestion
- Poor sight distance/visibility
- I don't know
- Other

96. The **roadway** was a...

- One-way street.
- An undivided two-way road.
- An undivided two-way road with a center 2-way left turn lane.
- Physically divided road (median strip or barrier separation).
- Other

97. How many **children** (ages 17 and under, including **yourself** if applicable) were in the same vehicle as you?

98. How many **young children** (ages 8 and under) were in the same vehicle as you?

99. Were you wearing your **seatbelt**?

- Yes
- No
- I was a pedestrian/bicyclist

100. In your own words, explain why the crash occurred.

101. If you were **riding a motorcycle** at the time of the crash, were you wearing a **helmet**?

- Yes
- No

102. Were you wearing other **protective gear**?

- Yes
- No

103. Were you riding **alone** or in a **group** when the crash occurred?

- Riding alone
- Riding in a group

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## THANK YOU FOR COMPLETING OUR SURVEY!

We would like to **send you a copy of our report**, if that is of interest to you, and to contact you with any follow-up questions we may have. (This is especially helpful if we need to clarify an answer provided here.) Please allow us to do that by providing your **email address**. Thank you!

Email address: \_\_\_\_\_

**Comments:** If you have any comments, or any other information you would like to share with us (ex. favorite and least favorite transportation safety policies, vehicle design features, biggest traffic safety concerns, etc.), please write these in the space provided below.

*Thank you again* for your kind attention to this important survey. The information you and others are providing will be very helpful in crafting safety recommendations for vehicle manufacturers, drivers, and policy makers.