The 2024 North Carolina Observational Survey of Seat Belt Use

Final Report

Prepared for

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2024 North Carolina Seat Belt Study Results



92.84%

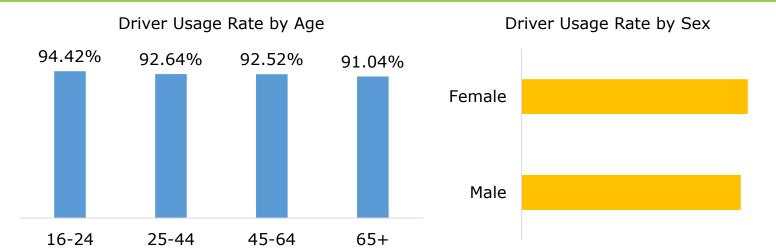
Combined Rate

93.1%

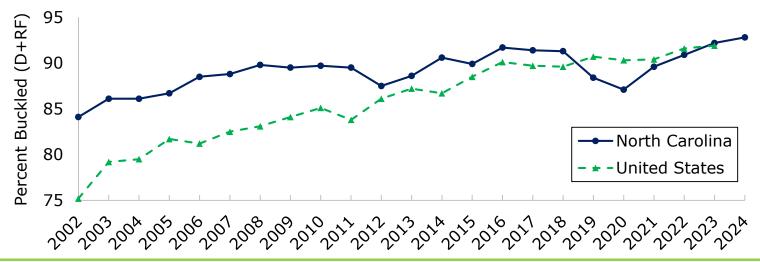
Driver Rate

91.8%

Front Right Seat Passenger Rate



Seat Belt Use Trends in North Carolina Compared to United States Overall



Study Details

19,714 observations were collected across 120 observation sites which includes driver and front right seat passenger seat belt use. Please note that historic NC rates are based on data collected in the month of June. Data for 2020 were collected in the months of September and early October due to the COVID-19 pandemic. In 2021, data were collected in June; data in 2022 and 2023 were collected in June and July; and data in 2024 were collected between June and September, primarily in June and July. For more information, please contact Daniel Findley at djfindle@ncsu.edu.

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INTRODUCTION

Annual seat belt use surveys are conducted in the State of North Carolina to fulfill the requirements of the National Highway Traffic Safety Administration (NHTSA). The observational survey begins shortly before the end of the Governor's Highway Safety Program (GHSP)'s Click It or Ticket event. The Click It or Ticket program is an enforcement and education campaign to increase seat belt use, thus reducing injuries and deaths in motor vehicle crashes. Click It or Ticket began as a pilot project in North Carolina in October 1993, and has since become a national model for similar programs across the country.

According to the Uniform Criteria for State Observational Surveys of Seat Belt Use ("Uniform Criteria") Federal Final Rule¹, states are required to reselect their road segments and observation sites at least once every five years. North Carolina was required to reselect its road segments and observation sites in 2022. The current survey design was approved by NHTSA in April 2012, with minor updates in April 2017.

This report summarizes the 2024 Seat Belt Survey results. Observations were collected in 15 counties in North Carolina stratified by three regions (Mountains, Piedmont, and Coastal). Eight observation sites were visited in each county for a total of 120 sites.

Field observers successfully collected seat belt use data on 15892 drivers and 3822 front right seat passengers, for a total of 19714 observations. Seat belt use data were unknown for a maximum of 91 additional drivers and 142 additional front right seat passengers, resulting in a statewide combined nonresponse rate of $\leq 1.2\%$, well below the 10% threshold established by the Uniform Criteria.

The 2024 weighted statewide seat belt use rate is estimated at 92.8% with a standard error of 0.6%. This standard error is within the 2.5% requirement mandated by the Uniform Criteria.

 $^{^1}https://www.federalregister.gov/documents/2011/04/01/2011-7632/uniform-criteria-for-state-observational-surveys-of-seat-belt-use\\$

ORGANIZATION OF REPORT

This report provides the 2024 Seat Belt Use Survey results, including statewide seat belt use rates and a discussion of longitudinal trends. Characteristics of drivers, including by vehicle type and geographic location (e.g. region, county, and urban/rural), are also provided. Additional detailed summary tables are provided in Appendix A with results for further subgroups of interest.

Table 1-1 presents the overall results of the 120-site sample of the 2024 North Carolina Seat Belt Survey. Key figures and their comparisons with the 2022 study are listed below:

- The 2024 weighted statewide seat belt use rate for drivers (D) is 93.1%, compared with 91.9% of drivers who were observed using seat belts in the 2023 survey.
- The 2024 weighted statewide seat belt use rate for right front seat passengers (RF) is 91.8%, compared with 93.6% in 2023.
- The 2024 weighted statewide seat belt use rate for drivers and right front seat passengers combined (D+RF) is 92.8% (95% confidence interval: 91.6%, 94.1%), compared to 92.2% in 2023 (95% CI: 91.0%, 93.4%).

Table 1-1: Unweighted and Weighted Statewide Seat Belt Use Rates

	Unweighted	Weig	hted	
Category	Use %	Use %	SE %	Sample Size
Overall Use Rates				
Driver	92.7007%	93.0780%	0.5944%	15892
Passenger	90.9995%	91.8057%	0.9253%	3822
Combined	92.3709%	92.8429%	0.6246%	19714
Driver Use Rates				
Urban/Rural				
Urban	93.0068%	93.4729%	0.5856%	13413
Rural	91.0448%	89.3260%	0.9710%	2479
Region				
Mountain	93.7219%	94.4950%	0.4056%	6897
Piedmont	92.9202%	92.2023%	1.1631%	4986
Coast	90.6710%	89.8940%	1.2921%	4009
Vehicle Type				
Car	91.7737%	91.7728%	0.7922%	5215
Van	87.1069%	86.7789%	4.7013%	318
Minivan	94.4361%	92.6306%	1.7368%	665
Pickup Truck	89.8770%	90.3954%	0.9644%	2845
Sport-Utility Vehicle	95.4582%	96.2205%	0.5003%	6275
Other	86.0424%	84.3522%	2.4798%	566
Sex of Driver				
Male	91.1482%	91.4816%	0.8342%	3954
Female	94.4159%	94.4154%	0.9541%	2722
Race/Ethnicity of D	Driver			
White	93.1851%	93.6048%	0.9524%	4813
Black	88.7336%	88.6832%	1.3779%	1145
Hispanic	93.3945%	94.7071%	1.1492%	545
Native American	90.9091%	89.6051%	10.4593%	11
Asian	95.8333%	97.8942%	1.3709%	144
Age of Driver				
16-24	92.3077%	94.4173%	1.2852%	364
25-44	92.9657%	92.6442%	0.9429%	3881
45-64	91.6019%	92.5187%	1.7273%	2060
65+	92.5824%	91.0406%	4.0392%	364
Driver Cell Use				
Talk	1.2440%	1.0641%	0.1840%	6672
Text	4.4664%	4.5043%	0.4952%	6672
None Observed	94.2896%	94.4316%	0.5642%	6672

Table 1-2 shows driver (D), right front seat passenger (RF), and driver and right front seat passenger combined (D+RF) belt-use rates by county for this survey year. Sample sizes are provided for the combined rate.

Table 1-2: Weighted Seat Belt Use Rates by County

County	Driver (D)	Passenger (RF)	Combined (D+RF)	Sample Size
BLADEN	88.42	87.90	88.31	632
BUNCOMBE	93.75	92.76	93.52	1461
DAVIDSON	92.96	89.56	92.41	987
FORSYTH	93.35	93.75	93.41	1711
FRANKLIN	89.04	82.00	87.32	1386
HENDERSON	97.06	93.68	96.45	1521
IREDELL	94.49	93.94	94.38	2341
JOHNSTON	91.68	92.27	91.82	1725
LEE	91.69	92.11	91.77	999
MECKLENBURG	94.72	94.40	94.67	1969
NASH	88.97	84.66	88.13	908
NEW HANOVER	94.37	95.78	94.64	1294
ROBESON	84.95	82.65	84.46	493
STANLY	96.55	94.29	96.08	1088
WILKES	88.90	83.42	87.77	1199

Table 1-3 provides weighted D, RF, and D+RF seat belt use estimates for each year since 2010.

Table 1-3: Weighted Year-to-Year Statewide Seat Belt Use Rates

Survey Periods	Driver (D)	Passenger (RF)	Combined (D+RF)
2010 ^a	90.4	86.7	89.7
2011 ^b	90.8	84.8	89.5
2012 ^b	88.0	85.7	87.5
2013 ^b	89.6	84.9	88.6
2014 ^b	90.9	89.7	90.6
2015 ^b	89.8	90.3	89.9
2016 ^b	92.1	90.4	91.7
2017 ^b	91.6	91.0	91.4
2018 ^b	91.5	90.3	91.3
2019 ^b	88.8	86.3	88.4
2020 ^c	86.8	88.3	87.1
2021 ^b	90.1	87.8	89.6
2022 ^d	90.7	91.6	90.9
2023 ^d	91.9	93.6	92.2
2024 ^e	93.1	91.8	92.8

^aThis survey was conducted at 121 sites in the month of June.

^bThis survey was conducted at 120 sites in the month of June.

^cThis survey was conducted at 120 sites between September 14th and October 3rd, 2020.

^dThis survey was conducted at 120 sites in June and July.

^eThis survey was conducted at 120 sites between June and September.

Table 1-4 provides longitudinal data on observed seat belt use overall (D+RF) in North Carolina compared to the United States for the period 2002-2023. Nationwide rates are provided by NHTSA's National Occupant Protection Use Survey (NOPUS). This table shows the upward trend of the combined seat belt use rate in North Carolina from 84% in 2002 to over 90% in 2014 before plateauing and mildly fluctuating around 90% to date.

Table 1-4: Comparison of North Carolina and National Seat Belt Use Trends

Overall (D+RF)	North	United
Use Rates	Carolina	States
2002^{1}	84.1	75.2
2003 ¹	86.1	79.2
2004^{1}	86.1	79.5
2005^{1}	86.7	81.7
2006 ¹	88.5	81.2
2007 ¹	88.8	82.5
2008 ¹	89.8	83.1
2009 ¹	89.5	84.1
2010^{1}	89.7	85.1
2011 ²	89.5	83.8
2012 ²	87.5	86.1
2013 ²	88.6	87.2
2014 ²	90.6	86.7
2015 ²	89.9	88.5
2016 ²	91.7	90.1
2017 ²	91.4	89.7
2018 ²	91.3	89.6
2019 ²	88.4	90.7
2020 ³	87.1	90.3
2021 ²	89.6	90.4
2022 ⁴	90.9	91.6
2023 ⁴	92.2	91.9
2024 ⁵	92.8	**
1This survey, was sanduct	tad at 121 aitas	for North Carolin

¹This survey was conducted at 121 sites for North Carolina in the month of June.

²This survey was conducted at 120 sites for North Carolina in the month of June.

³This survey was conducted at 120 NC sites between September 14th - October 3rd, 2020.

⁴This survey was collected at 120 sites for North Carolina in June and July.

⁵This survey was conducted at 120 sites between June and September.

^{**} Data not yet available.

Table 1-5 presents longitudinal data on observed seat belt use overall (D+RF) and driver seat belt use by region, vehicle type, and sex, age, and race/ethnicity of drivers.

Table 1-5: Longitudinal Data (Overall Rates and Driver Data)

	2010 ¹	2011 ²	2012 ²	2013 ²	2014 ²	2015 ²	2016 ²	2017 ²	2018 ²	2019 ²	2020 ³	2021 ²	20224	2023 ⁴	20245
Overall (D+RF) Use Rates	89.7	89.5	87.5	88.6	90.6	89.9	91.7	91.4	91.3	88.4	87.1	89.6	90.9	92.2	92.8
Region															
Mountain	89.5	91.6	90.3	90.3	93.1	90	93.4	92.4*	91.7*	87.7*	85.9*	89.8*	91.5*	92.1*	94.5*
Piedmont	91.1	91.5	87.4	88.2	89.8	91.9	92.2	91.9*	91.7*	92.5*	88.6*	92.1*	90.8*	92.2*	92.2*
Coast	88.8	87.1	84.6	87.5	90.0	88.0	90.5	89.5*	91.0*	85.8*	82.0*	81.0*	87.8*	91.3*	89.9*
Vehicle Type															
Car	91.4	92.2	90.6	90.3	91.6	90.2	92.3	92.9*	91.9*	89.8*	86.3*	90.1*	90.0*	91.7*	91.8*
Van	79.9	80.9	77.3	83.8	86.8	85.7	90.3	86.4*	89.4*	80.5*	82.0*	87.3*	84.3*	89.2*	86.8*
Minivan	94.5	94.4	92.7	93.9	94.4	94.7	95.9	96.4*	92.6*	94.2*	93.9*	95.0*	96.7*	94.8*	92.6*
Pickup Truck	84.1	86.1	82.0	84.5	86.7	86.3	88.8	86.6*	87.5*	85.8*	83.2*	86.5*	86.5*	89.3*	90.4*
SUV	91.6	91.8	91.0	92.8	94.1	92.0	93.8	93.5*	94.6*	91.2*	90.1*	92.7*	93.1*	93.7*	96.2*
Sex															
Male	87.8	89.5	85.5	87.9	89.2	87.8	91.1	88.8*	89.4*	88.4*	85.2*	88.4*	89.7*	92.3*	91.5*
Female	93.5	93.2	92.3	92.4	93.1	93.0	95.1	94.1*	93.6*	89.7*	89.6*	92.7*	94.7*	92.9*	94.4*
Age															
16-24	86.6	88.0	89.4	85.5	89.1	80.9	88.1	89.9*	88.8*	85.6*	84.6*	89.6*	87.6*	91.3*	94.4*
25-64	90.1	90.9	88.3	90.2	90.6	90.8	93.1	91.2*	91.3*	89.2*	86.9*	90.1*	91.7*	92.6*	92.6*
65+	96.8	93.6	88.2	95.2	95.2	89.7	93.7	90.7*	91.7*	89.7*	91.3*	93.3*	95.8*	93.5*	91.0*
Race/Ethnicity															
White	90.3	91.3	89.2	91.0	91.8	90.3	93.1	91.4*	91.8*	89.7*	88.0*	91.5*	93.3*	93.8*	93.6*
Black	89.6	89.1	85.8	85.7	88.0	89.2	91.7	89.5*	88.3*	85.4*	82.6*	87.0*	87.8*	86.9*	88.7*
Hispanic	95.4	93.5	89.6	86.5	91.2	90.4	93.6	91.2*	94.4*	89.0*	90.2*	89.5*	90.0*	92.2*	94.7*

¹This survey was conducted at 121 sites in the month of June.

²This survey was conducted at 120 sites in the month of June.

 $^{^{3}}$ This survey was conducted at 120 sites between 9/14/20 - 10/3/20.

⁴This survey was conducted at 120 sites in the months of June and July.

⁵This survey was conducted at 120 sites between June and September.

^{*}Rates represent driver seat belt use.

DISCUSSION AND CONCLUSIONS

The 2024 Seat Belt Use Study provides updated estimates of statewide seatbelt use for drivers and front right seat passengers in North Carolina. Tables and trends in this report are based on weighted seat belt use rates. The weighted rates are the best estimators of seat belt use for the entire state and for the reported subgroups. Additional summary tables are provided in Appendix A with further results for subgroups of interest.

In addition to gathering data on seat belt use, the 2024 Seat Belt Use Survey continued to assess statewide use of cell phones while driving. The 2023 Seat Belt Use Survey was the tenth statewide survey in North Carolina to assess the use of cell phones to talk and text while driving. The weighted rate of talking on a cell phone while driving decreased from 1.4% in 2023 to 1.2% in 2024, and the rate of texting across North Carolina decreased from 7.7% in 2023 to 4.5% in 2024.

It is plausible that results from the 2024 Seat Belt Use Survey may not be comparable to studies from years prior to 2020 due to potential ongoing impacts from the COVID-19 pandemic. Further research is required to partition out the long-term effects, if any, of the COVID-19 pandemic on safety trends.

APPENDIX A

Table A-1: Seat Belt Use by Occupant Type

Occupant Type	Seat Belt Status	Frequency	Percent	Std. Error
Driver	Belted	14732	93.0780	0.5944
	Unbelted	1160	6.9220	0.5944
	Total	15892		
Front Right Seat Passenger	Belted	3478	91.8057	0.9253
	Unbelted	344	8.1943	0.9253
	Total	3822		
Total	Belted	18210	92.8429	0.6246
	Unbelted	1504	7.1571	0.6246
	Total	19714		

Table A-2: Seat Belt Use by Urban/Rural Location (Drivers Only)

Location	Seat Belt Status	Frequency	Percent	Std. Error
Rural	Belted	2257	89.3260	0.9710
	Unbelted	222	10.6740	0.9710
	Total	2479		
Urban	Belted	12475	93.4729	0.5856
	Unbelted	938	6.5271	0.5856
	Total	13413		
Total	Belted	14732	93.0780	0.5944
	Unbelted	1160	6.9220	0.5944
	Total	15892		

Table A-3: Seat Belt Use by Urban/Rural Location (Front Right Seat Passenger Only)

Location	Seat Belt Status	Frequency	Percent	Std. Error
Rural	Belted	649	88.0648	2.5309
	Unbelted	83	11.9352	2.5309
	Total	732		
Urban	Belted	2829	92.3214	0.9540
	Unbelted	261	7.6786	0.9540
	Total	3090		
Total	Belted	3478	91.8057	0.9253
	Unbelted	344	8.1943	0.9253
	Total	3822		

Table A-4: Seat Belt Use by Region (Driver Only)

Region	Seat Belt Status	Frequency	Percent	Std. Error
Mountain	Belted	6464	94.4950	0.4056
	Unbelted	433	5.5050	0.4056
	Total	6897		
Piedmont	Belted	4633	92.2023	1.1631
	Unbelted	353	7.7977	1.1631
	Total	4986		
Coast	Belted	3635	89.8940	1.2921
	Unbelted	374	10.1060	1.2921
	Total	4009		
Total	Belted	14732	93.0780	0.5944
	Unbelted	1160	6.9220	0.5944
	Total	15892		

Table A-5: Seat Belt Use by Region (Front Right Seat Passenger Only)

Region	Seat Belt Status	Frequency	Percent	Std. Error
Mountain	Belted	1471	93.6782	1.0470
	Unbelted	123	6.3218	1.0470
	Total	1594		
Piedmont	Belted	1076	89.1942	2.3747
	Unbelted	109	10.8058	2.3747
	Total	1185		
Coast	Belted	931	89.3403	1.8480
	Unbelted	112	10.6597	1.8480
	Total	1043		
Total	Belted	3478	91.8057	0.9253
	Unbelted	344	8.1943	0.9253
	Total	3822		

Table A-6: Seat Belt Use by Vehicle Type (Driver Only)

Vehicle Type	Seat Belt Status	Frequency	Percent	Std. Error
Car	Belted	4786	91.7728	0.7922
	Unbelted	429	8.2272	0.7922
	Total	5215		
SUV	Belted	5990	96.2205	0.5003
	Unbelted	285	3.7795	0.5003
	Total	6275		
Minivan	Belted	628	92.6306	1.7368
	Unbelted	37	7.3694	1.7368
	Total	665		
Pickup	Belted	2557	90.3954	0.9644
	Unbelted	288	9.6046	0.9644
	Total	2845		
Van	Belted	277	86.7789	4.7013
	Unbelted	41	13.2211	4.7013
	Total	318		
Other	Belted	487	84.3522	2.4798
	Unbelted	79	15.6478	2.4798
	Total	566		
Total	Belted	14725	93.0774	0.5946
	Unbelted	1159	6.9226	0.5946
	Total	15884		

Table A-7: Seat Belt Use by Vehicle Type (Front Right Seat Passenger Only)

Vehicle Type	Seat Belt Status	Frequency	Percent	Std. Error
Car	Belted	929	91.0474	1.5570
	Unbelted	94	8.9526	1.5570
	Total	1023		
SUV	Belted	1551	93.7694	1.0762
	Unbelted	106	6.2306	1.0762
	Total	1657		
Minivan	Belted	226	95.2658	1.9555
	Unbelted	15	4.7342	1.9555
	Total	241		
Pickup	Belted	601	87.5251	2.1235
	Unbelted	93	12.4749	2.1235
	Total	694		
Van	Belted	71	92.3331	6.4838
	Unbelted	6	7.6669	6.4838
	Total	77		
Other	Belted	99	83.6028	3.8592
	Unbelted	29	16.3972	3.8592
	Total	128		
Total	Belted	3477	91.8076	0.9252
	Unbelted	343	8.1924	0.9252
	Total	3820		

Table A-8: Seat Belt Use by Gender (Driver Only)

Gender	Seat Belt Status	Frequency	Percent	Std. Error
Male	Belted	3604	91.4816	0.8342
	Unbelted	350	8.5184	0.8342
	Total	3954		
Female	Belted	2570	94.4154	0.9541
	Unbelted	152	5.5846	0.9541
	Total	2722		
Total	Belted	6174	92.6788	0.7532
	Unbelted	502	7.3212	0.7532
	Total	6676		

Table A-9: Seat Belt Use by Gender (Front Right Seat Passenger Only)

Gender	Seat Belt Status	Frequency	Percent	Std. Error
Male	Belted	542	91.8514	1.3296
	Unbelted	58	8.1486	1.3296
	Total	600		
Female	Belted	866	94.8403	1.5624
	Unbelted	50	5.1597	1.5624
	Total	916		
Total	Belted	1408	93.6665	1.2607
	Unbelted	108	6.3335	1.2607
	Total	1516		

Table A-10: Seat Belt Use by Race (Driver Only)

Race	Seat Belt Status	Frequency	Percent	Std. Error
White	Belted	4485	93.6048	0.9524
	Unbelted	328	6.3952	0.9524
	Total	4813		
Black	Belted	1016	88.6832	1.3779
	Unbelted	129	11.3168	1.3779
	Total	1145		
Hispanic	Belted	509	94.7071	1.1492
	Unbelted	36	5.2929	1.1492
	Total	545		
Asian	Belted	138	97.8942	1.3709
	Unbelted	6	2.1058	1.3709
	Total	144		
Nat. Am.	Belted	10	89.6051	10.4593
	Unbelted	1	10.3949	10.4593
	Total	11		
Total	Belted	6158	92.7273	0.7362
	Unbelted	500	7.2727	0.7362
	Total	6658		_

Table A-11: Seat Belt Use by Race (Front Right Seat Passenger Only)

Race	Seat Belt Status	Frequency	Percent	Std. Error
White	Belted	1060	94.3966	1.0899
	Unbelted	60	5.6034	1.0899
	Total	1120		
Black	Belted	181	91.8193	2.9433
	Unbelted	30	8.1807	2.9433
	Total	211		
Hispanic	Belted	132	91.8075	3.7920
	Unbelted	14	8.1925	3.7920
	Total	146		
Asian	Belted	32	93.3196	4.1707
	Unbelted	3	6.6804	4.1707
	Total	35		
Nat. Am.	Belted	0		_
	Unbelted	0		
	Total	0		
Total	Belted	1405	93.6540	1.2627
	Unbelted	107	6.3460	1.2627
	Total	1512		

Table A-12: Seat Belt Use by Age (Driver Only)

Age	Seat Belt Status	Frequency	Percent	Std. Error
16-24	Belted	336	94.4173	1.2852
	Unbelted	28	5.5827	1.2852
	Total	364		
25-44	Belted	3608	92.6442	0.9429
	Unbelted	273	7.3558	0.9429
	Total	3881		
45-64	Belted	1887	92.5187	1.7273
	Unbelted	173	7.4813	1.7273
	Total	2060		
65+	Belted	337	91.0406	4.0392
	Unbelted	27	8.9594	4.0392
	Total	364		
Total	Belted	6168	92.6800	0.7547
	Unbelted	501	7.3200	0.7547
	Total	6669		

Table A-13: Seat Belt Use by Age (Front Right Seat Passenger Only)

Age	Seat Belt Status	Frequency	Percent	Std. Error
<16	Belted	119	92.8280	2.6363
	Unbelted	10	7.1720	2.6363
	Total	129		
16-24	Belted	191	92.8225	2.7501
	Unbelted	17	7.1775	2.7501
	Total	208		
25-44	Belted	677	94.0649	1.8267
	Unbelted	43	5.9351	1.8267
	Total	720		
45-64	Belted	307	91.9326	2.3096
	Unbelted	33	8.0674	2.3096
	Total	340		
65+	Belted	108	97.4146	1.7442
	Unbelted	5	2.5854	1.7442
	Total	113		
Total	Belted	1402	93.5586	1.2679
	Unbelted	108	6.4414	1.2679
	Total	1510	_	

Table A-14: Driver Cell Phone Use

	Use Type	Frequency	Percent	Std. Error
Driver,	Ear	83	1.0641	0.1840
Known Belt Status	Hand	298	4.5043	0.4952
	None	6291	94.4316	0.5642

Table A-15: Seat Belt Use by County (Combined Driver + Passenger)

	Cost Bolt Ctatus			
County	Seat Belt Status	Frequency		
BLADEN	Belted	552	88.3140	1.7457
	Unbelted	80	11.6860	1.7457
	Total	632		
BUNCOMBE	Belted	1368	93.5214	1.0176
	Unbelted	93	6.4786	1.0176
	Total	1461		
DAVIDSON	Belted	908	92.4073	2.2878
	Unbelted	79	7.5927	2.2878
	Total	987		
FORSYTH	Belted	1586	93.4081	1.8290
	Unbelted	125	6.5919	1.8290
	Total	1711		
FRANKLIN	Belted	1254	87.3222	3.0006
	Unbelted	132	12.6778	3.0006
	Total	1386	12.0770	3.000
HENDERSON	Belted	1457	96.4454	0.0958
HENDERSON	Unbelted	64	3.5546	0.0958
		1521	J.JJ . 10	0.0930
IDEDELL	Total		04 2022	1 5062
IREDELL	Belted	2187	94.3822	1.5062
	Unbelted	154	5.6178	1.5062
	Total	2341		
JOHNSTON	Belted	1594	91.8187	1.7024
	Unbelted	131	8.1813	1.7024
	Total	1725		
LEE	Belted	913	91.7722	0.6968
	Unbelted	86	8.2278	0.6968
	Total	999		
MECKLENBURG	Belted	1866	94.6673	0.6293
	Unbelted	103	5.3327	0.6293
	Total	1969		
NASH	Belted	795	88.1274	0.9095
117.011	Unbelted	113	11.8726	0.9095
	Total	908	11.07.20	0.3030
NEW HANOVER	Belted	1213	94.6442	1.6814
INLAN HIMINOVER	Unbelted	81	5.3558	1.6814
		1294	3.3330	1.0017
DORECON	Total		94 4602	2 2151
ROBESON	Belted	412	84.4602	2.2151
	Unbelted	81	15.5398	2.2151
	Total	493		2 = 1 2 =
STANLY	Belted	1048	96.0755	0.5107
	Unbelted	40	3.9245	0.5107

County	Seat Belt Status	Frequency	Percent	Std. Error
	Total	1088		
WILKES	Belted	1057	87.7677	2.5493
	Unbelted	142	12.2323	2.5493
	Total	1199		
Total	Belted	18210	92.8429	0.6246
	Unbelted	1504	7.1571	0.6246
	Total	19714		

Table A-16: Seat Belt Use by County (Driver Only)

Belted	County	Seat Belt Status	Frequency	Percent	Std. Error
Total	BLADEN	Belted	440	88.4245	2.0419
BUNCOMBE Belted Unbelted 69 6.2539 1.1522 Total 1169 DAVIDSON Belted 750 92.9647 2.0145 Unbelted 61 7.0353 2.0145 Total 811 FORSYTH Belted 1350 93.3457 1.8186 Unbelted 105 6.6543 1.8186 Total 1455 FRANKLIN Belted 969 89.0440 2.6156 Unbelted 88 10.9560 2.6156 Unbelted 46 2.9404 0.2149 Total 1206 IREDELL Belted 1773 94.4887 1.5589 Unbelted 123 5.5113 1.5589 Total 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 1584 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 993 94.3694 1.7020 Unbelted 99 5.6306 1.7020 Total 1062 ROBESON Belted 993 94.3694 1.7020 Unbelted 99 5.6306 1.7020 Total 1062 ROBESON Belted 993 94.3694 1.7020 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	61	11.5755	2.0419
Unbelted February Total Total		Total	501		
Total 1169	BUNCOMBE	Belted	1100	93.7461	1.1522
DAVIDSON Belted Unbelted 750 (61 mode) 92.9647 (7.0353) 2.0145 (7.0353) 2.0149 (7.0353) <td></td> <td>Unbelted</td> <td>69</td> <td>6.2539</td> <td>1.1522</td>		Unbelted	69	6.2539	1.1522
Unbelted Forestar Forestar		Total	1169		
Total	DAVIDSON	Belted	750	92.9647	2.0145
FORSYTH Belted Unbelted 105 6.6543 1.8186 Unbelted 105 6.6543 1.8186 Total 1455 FRANKLIN Belted 969 89.0440 2.6156 Unbelted 88 10.9560 2.6156 Total 1057 HENDERSON Belted 1160 97.0596 0.2149 Unbelted 46 2.9404 0.2149 Total 1206 IREDELL Belted 1773 94.4887 1.5589 Unbelted 123 5.5113 1.5589 Total 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	61	7.0353	2.0145
Unbelted 105		Total	811		
Total 1455 FRANKLIN Belted 969 89.0440 2.6156 Unbelted 88 10.9560 2.6156 Total 1057 10.9560 0.2149 HENDERSON Belted 1160 97.0596 0.2149 Unbelted 46 2.9404 0.2149 Total 1206 1206 IREDELL Belted 1773 94.4887 1.5589 Unbelted 123 5.5113 1.5589 Total 1896 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 1.8389 Total 1330 1.8389 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 MECKLENBURG Belted 1584 94.7171 0.4610 Total 1674 1674 NASH <td>FORSYTH</td> <td>Belted</td> <td>1350</td> <td>93.3457</td> <td>1.8186</td>	FORSYTH	Belted	1350	93.3457	1.8186
FRANKLIN Belted Unbelted 969 88 .0440 2.6156 2.6156 Total 1057		Unbelted	105	6.6543	1.8186
Unbelted 88 10.9560 2.6156 Total 1057		Total	1455		
Total	FRANKLIN	Belted	969	89.0440	2.6156
HENDERSON Belted 1160 97.0596 0.2149 Unbelted 46 2.9404 0.2149 Total 1206 IREDELL Belted 1773 94.4887 1.5589 Unbelted 123 5.5113 1.5589 Total 1896 JOHNSTON Belted 102 8.3193 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	88	10.9560	2.6156
Unbelted 1206 1206 15589 15089 1608 1		Total	1057		
Total 1206 IREDELL Belted 1773 94.4887 1.5589 Unbelted 123 5.5113 1.5589 Total 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107	HENDERSON	Belted	1160	97.0596	0.2149
IREDELL Belted Unbelted 1773 Unbelted 94.4887 1.5589 Total 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	46	2.9404	0.2149
Unbelted 123 5.5113 1.5589 Total 1896		Total	1206		
Total 1896 JOHNSTON Belted 1228 91.6807 1.8389 Unbelted 102 8.3193 1.8389 Total 1330 LEE Belted 744 91.6927 0.6440 Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107	IREDELL	Belted	1773	94.4887	1.5589
JOHNSTON Belted 1228 91.6807 1.8389 1.8389 Total 1330		Unbelted	123	5.5113	1.5589
Unbelted 102 8.3193 1.8389 Total 1330		Total	1896		
Total 1330	JOHNSTON	Belted	1228	91.6807	1.8389
LEE Belted Unbelted 744 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	102	8.3193	1.8389
Unbelted 70 8.3073 0.6440 Total 814 MECKLENBURG Belted 1584 94.7171 0.4610 Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Total	1330		
Total 814 MECKLENBURG Belted Unbelted 1584 94.7171 0.4610 0.4610 Total 1674 0.5829 0.4610 0.5835 NASH Belted 643 88.9708 0.5835 0.5835 0.5835 Unbelted 83 11.0292 0.5835 0.5835 0.5835 0.5835 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 0.7020<	LEE	Belted	744	91.6927	
MECKLENBURG Belted Unbelted 1584 94.7171 0.4610 Very Description 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	70	8.3073	0.6440
Unbelted 90 5.2829 0.4610 Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Total	814		
Total 1674 NASH Belted 643 88.9708 0.5835 Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107	MECKLENBURG	Belted	1584	94.7171	0.4610
NASH Belted Unbelted 643 88.9708 11.0292 0.5835 Total 726 NEW HANOVER Belted Unbelted 993 94.3694 1.7020 1.7020 Total 1062 ROBESON Belted Unbelted 331 84.9513 2.7129 1.7020 1.7020 1.7020 1.7020 Total 390 57.0487 2.7129 1.7020		Unbelted	90	5.2829	0.4610
Unbelted 83 11.0292 0.5835 Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Total	1674		
Total 726 NEW HANOVER Belted 993 94.3694 1.7020 Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107	NASH	Belted	643	88.9708	
NEW HANOVER Belted Unbelted 993 5.6306 1.7020 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Unbelted	83	11.0292	0.5835
Unbelted 69 5.6306 1.7020 Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Total	726		
Total 1062 ROBESON Belted 331 84.9513 2.7129 Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107	NEW HANOVER	Belted	993	94.3694	1.7020
ROBESON Belted Unbelted 331 S4.9513 S4.9513 S4.9513 S4.9513 S7.7129		Unbelted	69	5.6306	1.7020
Unbelted 59 15.0487 2.7129 Total 390 STANLY Belted 820 96.5544 0.4107		Total	1062		
Total 390 STANLY Belted 820 96.5544 0.4107	ROBESON	Belted		84.9513	2.7129
STANLY Belted 820 96.5544 0.4107		Unbelted	59	15.0487	2.7129
		Total	390		
Unbelted 29 3.4456 0.4107	STANLY	Belted	820		
		Unbelted	29	3.4456	0.4107

County	Seat Belt Status	Frequency	Percent	Std. Error
	Total	849		
WILKES	Belted	847	88.9007	2.3205
	Unbelted	105	11.0993	2.3205
	Total	952		
Total	Belted	14732	93.0780	0.5944
	Unbelted	1160	6.9220	0.5944
	Total	15892		

Table A-17: Seat Belt Use by County (Front Right Seat Passenger Only)

County	Seat Belt Status	Frequency	Percent	Std. Error
BLADEN	Belted	112	87.9003	4.5088
	Unbelted	19	12.0997	4.5088
	Total	131		
BUNCOMBE	Belted	268	92.7595	0.9243
	Unbelted	24	7.2405	0.9243
	Total	292		
DAVIDSON	Belted	158	89.5620	3.5506
	Unbelted	18	10.4380	3.5506
	Total	176		
FORSYTH	Belted	236	93.7490	2.0638
	Unbelted	20	6.2510	2.0638
	Total	256		
FRANKLIN	Belted	285	82.0019	5.5603
	Unbelted	44	17.9981	5.5603
	Total	329		
HENDERSON	Belted	297	93.6831	0.8504
	Unbelted	18	6.3169	0.8504
	Total	315		
IREDELL	Belted	414	93.9410	1.3854
	Unbelted	31	6.0590	1.3854
	Total	445		
JOHNSTON	Belted	366	92.2737	2.1183
	Unbelted	29	7.7263	2.1183
	Total	395		
LEE	Belted	169	92.1135	1.1947
	Unbelted	16	7.8865	1.1947
	Total	185		
MECKLENBURG	Belted	282	94.3972	1.5947
	Unbelted	13	5.6028	1.5947
	Total	295		
NASH	Belted	152	84.6600	3.5660
	Unbelted	30	15.3400	3.5660
	Total	182		
NEW HANOVER	Belted	220	95.7785	1.7102
	Unbelted	12	4.2215	1.7102
	Total	232		
ROBESON	Belted	81	82.6494	3.2570
	Unbelted	22	17.3506	3.2570
	Total	103		
STANLY	Belted	228	94.2922	1.2237
	Unbelted	11	5.7078	1.2237

County	Seat Belt Status	Frequency	Percent	Std. Error
	Total	239		
WILKES	Belted	210	83.4168	3.8702
	Unbelted	37	16.5832	3.8702
	Total	247		
Total	Belted	3478	91.8057	0.9253
	Unbelted	344	8.1943	0.9253
	Total	3822		