

# Virginia CODES Crash Outcome Data Evaluation System



Motor Vehicle Crash Outcomes in 2002 by Vehicle Type and Age												
Age Group	Persons Involved	# Injured	Injury Rate	% of All Injuries	Fatal	Fatality Rate per 100,000	Inpatient Hospitalizations	Inpatient Hospitalizations per 100,000	Average Hospital Charge	Median Hospital Charges	Average Length of Stay	
<b>Bicycle/Moped</b>												
00 - 17	328	314	95.7%	0.2%	1	304.9	73	22,256.1	\$ 20,361	\$ 10,905	4.78	
18 - 34	316	283	89.6%	0.2%	4	1,265.8	40	12,658.2	\$ 19,451	\$ 13,413	4.10	
35 - 64	294	266	90.5%	0.2%	6	2,040.8	32	10,884.4	\$ 28,685	\$ 14,960	5.75	
65+	25	18	72.0%	0.0%	2	8,000.0	4	16,000.0	*	*	*	
Not Stated	112	95	84.8%	0.1%	-	-	1	892.9	*	*	*	
<b>Subtotal</b>	<b>1,075</b>	<b>976</b>	<b>90.8%</b>	<b>0.6%</b>	<b>13</b>	<b>1,209.3</b>	<b>150</b>	<b>13,953.5</b>	<b>\$ 21,760</b>	<b>\$ 12,420</b>	<b>4.89</b>	
<b>City/Private/Commercial Buses</b>												
00 - 17	63	63	100.0%	0.0%	-	-	0	-	*	*	*	
18 - 34	165	49	29.7%	0.0%	-	-	0	-	*	*	*	
35 - 64	510	138	27.1%	0.1%	-	-	2	392.2	*	*	*	
65+	40	10	25.0%	0.0%	-	-	0	-	*	*	*	
Not Stated	19	10	52.6%	0.0%	-	-	0	-	*	*	*	
<b>Subtotal</b>	<b>797</b>	<b>270</b>	<b>33.9%</b>	<b>0.2%</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>250.9</b>	<b>*</b>	<b>*</b>	<b>*</b>	
<b>Emergency Vehicle</b>												
00 - 17	6	4	66.7%	0.0%	-	-	0	-	*	*	*	
18 - 34	524	161	30.7%	0.1%	-	-	5	954.2	*	*	*	
35 - 64	362	101	27.9%	0.1%	-	-	2	552.5	*	*	*	
65+	11	5	45.5%	0.0%	-	-	0	-	*	*	*	
Not Stated	10	5	50.0%	0.0%	-	-	1	10,000.0	*	*	*	
<b>Subtotal</b>	<b>913</b>	<b>276</b>	<b>30.2%</b>	<b>0.2%</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>876.2</b>	<b>\$ 15,080</b>	<b>\$ 10,646</b>	<b>3.75</b>	
<b>Large Commercial Truck</b>												
00 - 17	36	15	41.7%	0.0%	-	-	1	2,777.8	*	*	*	
18 - 34	1,584	186	11.7%	0.1%	2	126.3	15	947.0	\$ 13,532	\$ 8,999	3.40	
35 - 64	2,515	284	11.3%	0.2%	5	198.8	31	1,232.6	\$ 28,002	\$ 13,667	6.48	
65+	138	19	13.8%	0.0%	-	-	4	2,898.6	*	*	*	
Not Stated	113	5	4.4%	0.0%	-	-	1	885.0	*	*	*	
<b>Subtotal</b>	<b>4,386</b>	<b>509</b>	<b>11.6%</b>	<b>0.3%</b>	<b>7</b>	<b>159.6</b>	<b>52</b>	<b>1,185.6</b>	<b>\$ 22,354</b>	<b>\$ 11,371</b>	<b>5.25</b>	
<b>Motorcycle</b>												
00 - 17	47	45	95.7%	0.0%	1	2,127.7	7	14,893.6	\$ 30,696	\$ 31,191	5.86	
18 - 34	826	657	79.5%	0.4%	23	2,784.5	137	16,586.0	\$ 29,242	\$ 15,314	6.12	
35 - 64	896	728	81.3%	0.5%	28	3,125.0	221	24,665.2	\$ 27,273	\$ 17,462	5.85	
65+	42	34	81.0%	0.0%	1	2,381.0	7	16,666.7	\$ 26,252	\$ 22,073	6.71	
Not Stated	29	8	27.6%	0.0%	1	3,448.3	1	3,448.3	*	*	*	
<b>Subtotal</b>	<b>1,840</b>	<b>1,472</b>	<b>80.0%</b>	<b>1.0%</b>	<b>54</b>	<b>2,934.8</b>	<b>373</b>	<b>20,271.7</b>	<b>\$ 27,972</b>	<b>\$ 16,767</b>	<b>5.95</b>	
<b>Other Vehicle Types</b>												
00 - 17	35	26	74.3%	0.0%	-	-	6	17,142.9	\$ 25,876	\$ 12,054	6.67	
18 - 34	88	39	44.3%	0.0%	2	2,272.7	8	9,090.9	\$ 49,397	\$ 38,987	7.50	
35 - 64	159	37	23.3%	0.0%	-	-	7	4,402.5	\$ 16,318	\$ 16,581	2.71	
65+	48	9	18.8%	0.0%	-	-	3	6,250.0	*	*	*	
Not Stated	13	4	30.8%	0.0%	-	-	2	15,384.6	*	*	*	
<b>Subtotal</b>	<b>343</b>	<b>115</b>	<b>33.5%</b>	<b>0.1%</b>	<b>2</b>	<b>583.1</b>	<b>26</b>	<b>7,580.2</b>	<b>\$ 38,293</b>	<b>\$ 15,942</b>	<b>8.69</b>	
<b>Passenger Car</b>												
00 - 17	16,326	7,384	45.2%	4.9%	46	281.8	286	1,751.8	\$ 21,410	\$ 11,431	4.96	
18 - 34	79,276	21,581	27.2%	14.2%	225	283.8	1536	1,937.5	\$ 21,886	\$ 10,274	4.92	
35 - 64	60,302	16,545	27.4%	10.9%	129	213.9	1115	1,849.0	\$ 23,906	\$ 11,209	5.52	
65+	13,493	3,685	27.3%	2.4%	82	607.7	562	4,165.1	\$ 27,150	\$ 12,098	6.84	
Not Stated	2,780	448	16.1%	0.3%	1	36.0	23	827.3	\$ 8,669	\$ 2,215	5.00	
<b>Subtotal</b>	<b>172,177</b>	<b>49,643</b>	<b>28.8%</b>	<b>32.6%</b>	<b>483</b>	<b>280.5</b>	<b>3522</b>	<b>2,045.6</b>	<b>\$ 23,240</b>	<b>\$ 15,942</b>	<b>5.42</b>	
<b>Pick-Up Truck</b>												
00 - 17	4,401	1,852	42.1%	1.2%	21	477.2	70	1,590.5	\$ 21,515	\$ 8,592	5.83	
18 - 34	26,186	5,806	22.2%	3.8%	61	232.9	435	1,661.2	\$ 19,251	\$ 10,462	4.15	
35 - 64	31,885	6,512	20.4%	4.3%	80	250.9	576	1,806.5	\$ 29,498	\$ 12,148	6.36	
65+	3,451	735	21.3%	0.5%	21	608.5	114	3,303.4	\$ 25,956	\$ 11,366	6.16	
Not Stated	1,195	124	10.4%	0.1%	1	83.7	17	1,422.6	\$ 1,943	\$ 1,603	2.06	
<b>Subtotal</b>	<b>67,118</b>	<b>15,029</b>	<b>22.4%</b>	<b>9.9%</b>	<b>184</b>	<b>274.1</b>	<b>1212</b>	<b>1,805.8</b>	<b>\$ 24,640</b>	<b>\$ 11,324</b>	<b>5.46</b>	

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<b>School Bus</b>												
00 - 17	301	300	99.7%	0.2%	-	-	2	664.5	*	*	*	
18 - 34	152	26	17.1%	0.0%	-	-	0	-	*	*	*	
35 - 64	518	58	11.2%	0.0%	-	-	3	579.2	*	*	*	
65+	61	4	6.6%	0.0%	-	-	0	-	*	*	*	
Not Stated	31	23	74.2%	0.0%	-	-	1	3,225.8	*	*	*	
<b>Subtotal</b>	<b>1,063</b>	<b>411</b>	<b>38.7%</b>	<b>0.3%</b>	-	-	<b>6</b>	<b>564.4</b>	<b>\$ 19,785</b>	<b>\$ 7,450</b>	<b>3.17</b>	
<b>Tractor-Trailer Truck</b>												
00 - 17	18	11	61.1%	0.0%	1	5,555.6	1	5,555.6	*	*	*	
18 - 34	1,326	133	10.0%	0.1%	2	150.8	14	1,055.8	\$ 6,773	\$ 6,619	2.86	
35 - 64	3,299	312	9.5%	0.2%	11	333.4	58	1,758.1	\$ 22,959	\$ 10,813	5.26	
65+	142	8	5.6%	0.0%	-	-	3	2,112.7	*	*	*	
Not Stated	165	-	0.0%	0.0%	-	-	0	-	*	*	*	
<b>Subtotal</b>	<b>4,950</b>	<b>464</b>	<b>9.4%</b>	<b>0.3%</b>	<b>14</b>	<b>282.8</b>	<b>76</b>	<b>1,535.4</b>	<b>\$ 19,921</b>	<b>\$ 10,671</b>	<b>4.88</b>	
<b>Van</b>												
00 - 17	1,537	1,080	70.3%	0.7%	8	520.5	31	2,016.9	\$ 15,403	\$ 7,568	3.45	
18 - 34	6,196	1,589	25.6%	1.0%	5	80.7	90	1,452.6	\$ 15,182	\$ 7,558	4.01	
35 - 64	12,047	2,592	21.5%	1.7%	28	232.4	211	1,751.5	\$ 21,577	\$ 10,833	4.59	
65+	1,355	358	26.4%	0.2%	8	590.4	46	3,394.8	\$ 29,084	\$ 17,315	7.33	
Not Stated	338	58	17.2%	0.0%	2	591.7	5	1,479.3	*	*	*	
<b>Subtotal</b>	<b>21,473</b>	<b>5,677</b>	<b>26.4%</b>	<b>3.7%</b>	<b>51</b>	<b>237.5</b>	<b>383</b>	<b>1,783.6</b>	<b>\$ 20,349</b>	<b>\$ 10,143</b>	<b>4.70</b>	
<b>Not Stated</b>												
00 - 17	1,255	799	63.7%	0.5%	10	796.8	64	5,099.6	\$ 20,578	\$ 11,157	4.56	
18 - 34	4,453	1,497	33.6%	1.0%	28	628.8	117	2,627.4	\$ 25,499	\$ 14,678	5.09	
35 - 64	4,025	1,435	35.7%	0.9%	51	1,267.1	141	3,503.1	\$ 32,123	\$ 18,936	7.77	
65+	733	258	35.2%	0.2%	14	1,910.0	39	5,320.6	\$ 24,270	\$ 18,518	5.87	
Not Stated	6,202	66	1.1%	0.0%	2	32.2	2	32.2	*	*	*	
<b>Subtotal</b>	<b>16,668</b>	<b>4,055</b>	<b>24.3%</b>	<b>2.7%</b>	<b>105</b>	<b>629.9</b>	<b>363</b>	<b>2,177.8</b>	<b>\$ 26,936</b>	<b>\$ 16,188</b>	<b>6.10</b>	
<b>State Total</b>	<b>292,803</b>	<b>78,897</b>	<b>26.9%</b>	<b>100.0%</b>	<b>913</b>	<b>311.8</b>	<b>6,173</b>	<b>2,108.2</b>	<b>\$ 23,804</b>	<b>\$ 11,534</b>	<b>5.44</b>	

\* Too few to calculate

**Vehicle Type** - According to police crash reports includes Bicycle/Moped, City/Private/Commercial Buses, Emergency Vehicle, Large Commercial Truck, Motorcycle, Passenger Car, Pick-up Truck, School Bus, Tractor-Trailer Truck, Van, Other Vehicle Types (Motor homes, Farm Equipment, Hearse, etc.) and Not Stated

**Age Group** - According to police crash reports the age of occupant grouped into the following categories 0-17, 18-34, 35-64 and 65+

**Persons Involved** - Number of persons involved in crashes, according to police crash reports, and includes all drivers as well as those passengers and pedestrians who were killed or injured

**# Injured** - Number of persons who were injured according to police crash reports (FR-300); includes 2 -Visible sign of injury - had to be transported, 3 - Other visible injury and 4 no visible injury but complaint of pain or momentary unconsciousness; # Injured does not include 1 - Dead on Arrival, 5 - Died Later (within 30 days), 6 - Not Stated or blank values

**Injury Rate** - Of all persons involved in a crash and categorized within a **Vehicle Type and Age Group, Subtotal or State Total** the percentage for the Vehicle Type and Age Group, Subtotal or State Total that were injured

**% of All Injuries** - Of all persons involved in a crash and categorized in a **Vehicle Type and Age Group, Subtotal or State Total** the percentage of all injuries that category represents

**Fatal** - Number of persons killed, according to police crash reports, and includes those who died at the crash scene or up to 30 days later

**Fatality Rate per 100,000** - The fatality rate per 100,000 persons involved in crashes: (Persons Killed / Persons Involved) \* 100,000

**Inpatient Hospitalizations** - # of persons involved in crashes who were identified by data imputation as having been hospitalized in Virginia

**Inpatient Hospitalizations per 100,000** - The hospitalization rate per 100,000 persons involved in crashes: (Inpatient Hospitalizations)/(Persons Involved) \* 100,000

**Average Hospital Charge** - The total inpatient hospital charges divided by the number of persons hospitalized: Total Hospital Charges / Linked to Hospital

**Median Hospital Charges** - The midpoint of all of the hospital charges where half of the values are above the median charge and half are below; the halfway point of a set of numbers is less affected by low or high numbers that might otherwise skew a mean or average

**Average Length of Stay** - The total inpatient hospital days divided by the number of persons hospitalized: Total Hospital Days / Inpatient Hospitalizations

*This report is based on Virginia Department of Motor Vehicles crash data combined with Virginia hospital discharge data. Reports produced with small numbers in a grouping may distort rates and averages. Use caution when interpreting these results. Virginia CODES is a cooperative program of the Department of Motor Vehicles, Virginia Department of Health, Virginia Health Information and Inova Regional Trauma Center. For more information please contact [info@vacodes.org](mailto:info@vacodes.org) or 804-643-5573.*