

# Virginia CODES Crash Outcome Data Evaluation System



Motor Vehicle Crash Outcomes in 2004 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	341	328	96.2%	0.4%	4	1,173.0	33	9,677.4	\$ 17,904	\$ 16,599	3.18
18 - 34	345	319	92.5%	0.4%	2	579.7	28	8,115.9	\$ 18,265	\$ 15,189	3.14
35 - 64	351	329	93.7%	0.4%	5	1,424.5	54	15,384.6	\$ 29,880	\$ 18,519	6.09
65+	19	17	89.5%	0.0%	2	10,526.3	6	31,578.9	\$ 34,493	\$ 20,505	7.50
Not Stated	73	60	82.2%	0.1%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>1,129</b>	<b>1,053</b>	<b>93.3%</b>	<b>1.3%</b>	<b>13</b>	<b>1,151.5</b>	<b>121</b>	<b>10,717.4</b>	<b>\$ 24,155</b>	<b>\$ 16,809</b>	<b>4.69</b>
<b>City/Private/Commercial Buses</b>											
00 - 17	17	16	94.1%	0.0%	0	-	1	5,882.4	*	*	*
18 - 34	165	54	32.7%	0.1%	0	-	7	4,242.4	\$ 11,109	\$ 7,020	3.86
35 - 64	486	116	23.9%	0.1%	0	-	8	1,646.1	\$ 14,919	\$ 10,356	5.75
65+	54	6	11.1%	0.0%	0	-	3	5,555.6	*	*	*
Not Stated	24	16	66.7%	0.0%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>746</b>	<b>208</b>	<b>27.9%</b>	<b>0.3%</b>	<b>0</b>	<b>-</b>	<b>19</b>	<b>2,546.9</b>	<b>\$ 11,689</b>	<b>\$ 8,771</b>	<b>5.00</b>
<b>Emergency Vehicle</b>											
00 - 17	6	5	83.3%	0.0%	0	-	-	-	*	*	*
18 - 34	680	168	24.7%	0.2%	0	-	9	1,323.5	\$ 11,195	\$ 8,568	3.67
35 - 64	551	133	24.1%	0.2%	0	-	15	2,722.3	\$ 16,903	\$ 12,662	4.67
65+	14	6	42.9%	0.0%	0	-	4	28,571.4	*	*	*
Not Stated	32	9	28.1%	0.0%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>1,283</b>	<b>321</b>	<b>25.0%</b>	<b>0.4%</b>	<b>0</b>	<b>-</b>	<b>28</b>	<b>2,182.4</b>	<b>\$ 13,804</b>	<b>\$ 11,331</b>	<b>4.32</b>
<b>Large Commercial Truck</b>											
00 - 17	29	14	48.3%	0.0%	0	-	1	3,448.3	*	*	*
18 - 34	1,821	216	11.9%	0.3%	2	109.8	34	1,867.1	\$ 27,119	\$ 13,630	4.68
35 - 64	2,866	313	10.9%	0.4%	6	209.4	90	3,140.3	\$ 31,626	\$ 12,200	5.62
65+	166	17	10.2%	0.0%	0	-	13	7,831.3	\$ 28,576	\$ 13,910	7.15
Not Stated	95	9	9.5%	0.0%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>4,977</b>	<b>569</b>	<b>11.4%</b>	<b>0.7%</b>	<b>8</b>	<b>160.7</b>	<b>138</b>	<b>2,772.8</b>	<b>\$ 30,030</b>	<b>\$ 12,489</b>	<b>5.51</b>
<b>Motorcycle</b>											
00 - 17	49	41	83.7%	0.1%	1	2,040.8	6	12,244.9	\$ 14,047	\$ 7,230	2.17
18 - 34	1,018	807	79.3%	1.0%	23	2,259.3	157	15,422.4	\$ 39,701	\$ 16,898	5.71
35 - 64	1,076	876	81.4%	1.1%	30	2,788.1	238	22,119.0	\$ 34,132	\$ 18,073	5.13
65+	53	38	71.7%	0.0%	1	1,886.8	8	15,094.3	\$ 42,427	\$ 16,483	8.25
Not Stated	30	6	20.0%	0.0%	-	-	-	-	*	*	*
<b>Subtotal</b>	<b>2,226</b>	<b>1,768</b>	<b>79.4%</b>	<b>2.3%</b>	<b>55</b>	<b>2,470.8</b>	<b>409</b>	<b>18,373.8</b>	<b>\$ 36,137</b>	<b>\$ 17,302</b>	<b>5.37</b>
<b>Other Vehicle Types</b>											
00 - 17	76	57	75.0%	0.1%	3	3,947.4	10	13,157.9	\$ 30,123	\$ 14,162	10.50
18 - 34	188	58	30.9%	0.1%	8	4,255.3	12	6,383.0	\$ 88,807	\$ 69,694	13.92
35 - 64	325	62	19.1%	0.1%	4	1,230.8	15	4,615.4	\$ 21,577	\$ 16,245	5.07
65+	65	20	30.8%	0.0%	0	-	8	12,307.7	\$ 49,333	\$ 31,536	6.75
Not Stated	22	2	9.1%	0.0%	0	-	1	4,545.5	*	*	*
<b>Subtotal</b>	<b>676</b>	<b>199</b>	<b>29.4%</b>	<b>0.3%</b>	<b>15</b>	<b>2,218.9</b>	<b>46</b>	<b>6,804.7</b>	<b>\$ 45,560</b>	<b>\$ 19,079</b>	<b>8.80</b>
<b>Passenger Car</b>											
00 - 17	14,320	6,279	43.8%	8.0%	43	300.3	404	2,821.2	\$ 22,780	\$ 11,091	4.78
18 - 34	79,196	20,670	26.1%	26.3%	229	289.2	2,111	2,665.5	\$ 22,318	\$ 9,884	4.57
35 - 64	61,435	16,322	26.6%	20.8%	129	210.0	2,245	3,654.3	\$ 23,487	\$ 13,324	5.25
65+	13,476	3,550	26.3%	4.5%	91	675.3	951	7,057.0	\$ 27,256	\$ 14,321	6.08
Not Stated	2,906	398	13.7%	0.5%	4	137.6	5	172.1	*	*	*
<b>Subtotal</b>	<b>171,333</b>	<b>47,219</b>	<b>27.6%</b>	<b>60.2%</b>	<b>496</b>	<b>289.5</b>	<b>5,716</b>	<b>3,336.2</b>	<b>\$ 23,616</b>	<b>\$ 12,009</b>	<b>5.10</b>
<b>Pick-Up Truck / SUV</b>											
00 - 17	4,924	2,205	44.8%	2.8%	20	406.2	162	3,290.0	\$ 22,213	\$ 11,519	5.28
18 - 34	30,873	6,725	21.8%	8.6%	62	200.8	773	2,503.8	\$ 23,099	\$ 10,184	4.55
35 - 64	39,004	7,965	20.4%	10.1%	80	205.1	1,328	3,404.8	\$ 24,081	\$ 13,455	5.15
65+	4,167	973	23.4%	1.2%	27	647.9	272	6,527.5	\$ 29,558	\$ 14,748	6.50
Not Stated	1,292	153	11.8%	0.2%	0	-	2	154.8	*	*	*
<b>Subtotal</b>	<b>80,260</b>	<b>18,021</b>	<b>22.5%</b>	<b>23.0%</b>	<b>189</b>	<b>235.5</b>	<b>2,537</b>	<b>3,161.0</b>	<b>\$ 24,237</b>	<b>\$ 12,308</b>	<b>5.12</b>

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<b>School Bus</b>											
00 - 17	276	274	99.3%	0.3%	0	-	4	1,449.3	*	*	*
18 - 34	164	29	17.7%	0.0%	0	-	4	2,439.0	*	*	*
35 - 64	551	44	8.0%	0.1%	0	-	25	4,537.2	\$ 17,648	\$ 10,416	5.72
65+	86	5	5.8%	0.0%	0	-	2	2,325.6	*	*	*
Not Stated	15	7	46.7%	0.0%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>1,092</b>	<b>359</b>	<b>32.9%</b>	<b>0.5%</b>	<b>0</b>	<b>-</b>	<b>35</b>	<b>3,205.1</b>	<b>\$ 15,778</b>	<b>\$ 9,725</b>	<b>5.14</b>
<b>Tractor-Trailer Truck</b>											
00 - 17	28	26	92.9%	0.0%	0	-	1	3,571.4	*	*	*
18 - 34	1,328	165	12.4%	0.2%	4	301.2	23	1,731.9	\$ 19,483	\$ 10,025	3.78
35 - 64	4,061	379	9.3%	0.5%	4	98.5	108	2,659.4	\$ 20,366	\$ 12,479	4.26
65+	208	23	11.1%	0.0%	4	1,923.1	14	6,730.8	\$ 37,220	\$ 12,729	5.21
Not Stated	195	20	10.3%	0.0%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>5,820</b>	<b>613</b>	<b>10.5%</b>	<b>0.8%</b>	<b>12</b>	<b>206.2</b>	<b>146</b>	<b>2,508.6</b>	<b>\$ 21,758</b>	<b>\$ 12,061</b>	<b>4.29</b>
<b>Van</b>											
00 - 17	1,444	1,009	69.9%	1.3%	5	346.3	53	3,670.4	\$ 17,219	\$ 7,833	3.81
18 - 34	6,382	1,548	24.3%	2.0%	9	141.0	171	2,679.4	\$ 17,464	\$ 8,929	4.59
35 - 64	12,063	2,680	22.2%	3.4%	17	140.9	356	2,951.2	\$ 25,717	\$ 12,483	5.32
65+	1,549	384	24.8%	0.5%	9	581.0	90	5,810.2	\$ 31,687	\$ 15,368	6.76
Not Stated	348	64	18.4%	0.1%	0	-	-	-	*	*	*
<b>Subtotal</b>	<b>21,786</b>	<b>5,685</b>	<b>26.1%</b>	<b>7.2%</b>	<b>40</b>	<b>183.6</b>	<b>670</b>	<b>3,075.4</b>	<b>\$ 23,741</b>	<b>\$ 11,321</b>	<b>5.21</b>
<b>Not Stated</b>											
00 - 17	648	565	87.2%	0.7%	10	1,543.2	93	14,351.9	\$ 25,911	\$ 12,008	4.77
18 - 34	1,646	835	50.7%	1.1%	23	1,397.3	86	5,224.8	\$ 22,349	\$ 14,492	4.31
35 - 64	1,898	867	45.7%	1.1%	43	2,265.5	151	7,955.7	\$ 34,936	\$ 17,573	8.06
65+	269	158	58.7%	0.2%	17	6,319.7	71	26,394.1	\$ 48,379	\$ 24,334	10.69
Not Stated	6,122	46	0.8%	0.1%	1	16.3	-	-	*	*	*
<b>Subtotal</b>	<b>10,583</b>	<b>2,471</b>	<b>23.3%</b>	<b>3.1%</b>	<b>94</b>	<b>888.2</b>	<b>401</b>	<b>3,789.1</b>	<b>\$ 32,523</b>	<b>\$ 16,895</b>	<b>6.96</b>
<b>State Total</b>	<b>301,911</b>	<b>78,486</b>	<b>26.0%</b>	<b>100.0%</b>	<b>922</b>	<b>305.4</b>	<b>10,266</b>	<b>3,400.3</b>	<b>\$ 24,713</b>	<b>\$ 12,454</b>	<b>5.20</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.*