

Major Contributing Factors – 3

Major Contributing Factors

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Major Contributing Factors

Contributing factors are those circumstances or factors that have directly contributed to the collision or its severity. TAIS recognizes that a collision usually results from many causal factors. The collision data system accepts up to four contributing factors for each vehicle involved in a collision. Factors can be selected from four categories: human condition, human action, vehicle condition or driving environment.

In traffic collisions reported by police agencies the causal factors are assigned by the investigating officer. Incidents reported through SGI's Dial-a-Claim are assigned causal factors only if they are clearly identified in the driver's statements. The causal factors in property damage only collisions are therefore much more subjective in nature and not directly comparable to previous years and casualty collisions.

This section summarizes all contributing factors that were reported. In 2004, a total of 52,909 factors contributed to 42,683 collisions. The numbers in these figures represent the number of collisions in which a contributing factor was present and not the total number of occurrences of that factor. For example, driver inattention was recorded in 7,602 collisions (Fig 3.2), however there were 7,960 occurrences of driver inattention (Fig 5.9).

Driver inattention and driver distraction account for 16.7 per cent of all factors reported. SGI is aware of this fact and is working with a number of organizations to develop education and awareness programs to address this problem.

Figure 3.1 shows that human condition is a more prevalent factor in fatal collisions (43.3%) than in all collisions (22.9%). Human condition and human action account for 48.8 per cent of all factors in collisions, as compared to 82.6 per cent of factors in fatal crashes.

Figures 3.6 and 3.10 summarize the factors by road system. Seventy per cent of urban collisions are attributed to human factors, while environmental conditions are more prevalent in rural collisions (73%).

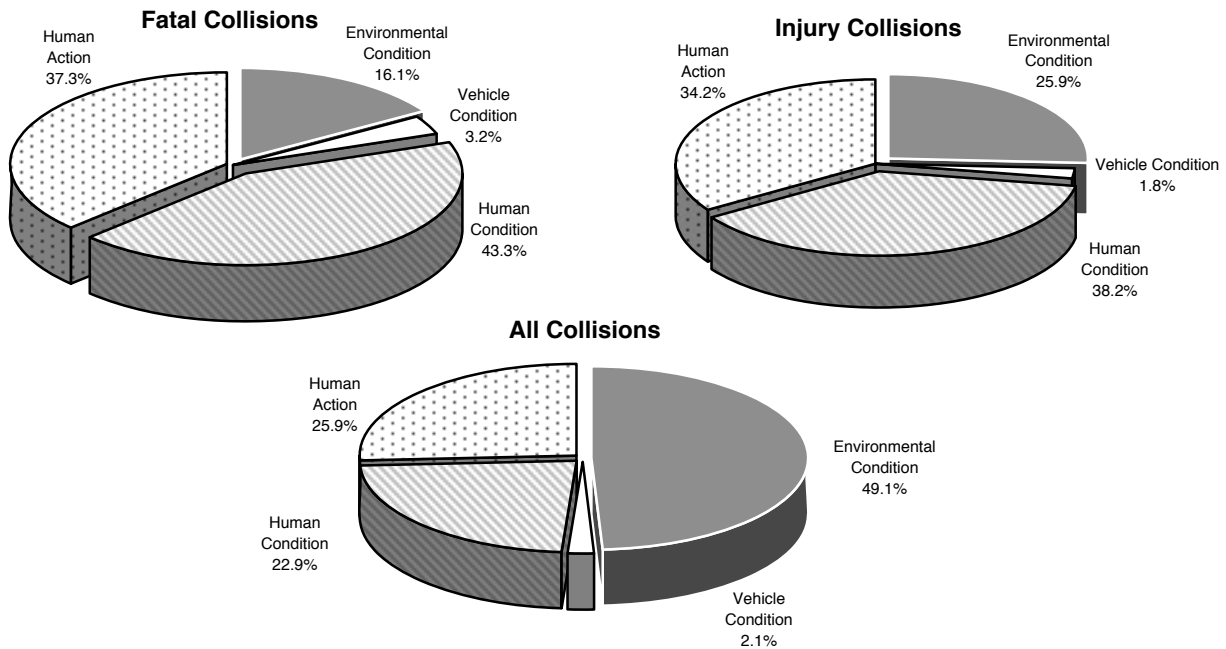
Top 10 Contributory Factors in Fatal Collisions During 2004

	Urban Streets	Prov. Highways	Rural Roads	Other	Total	% of Total
Alcohol Involvement	7	19	17	2	45	17.9
Driver Inattention/Distracted	3	21	4	3	31	12.3
Driving Too Fast For Conditions	0	16	5	1	22	8.7
Road Conditions	0	17	1	1	19	7.5
Exceeding the Speed Limit	5	8	4	1	18	7.1
Fail to Yield/Traffic Control Disregarded	6	8	2	0	16	6.3
Pedestrian Action Contributed	1	8	1	0	10	4.0
Other Human Action	2	6	2	0	10	4.0
Weather Conditions	0	8	1	0	9	3.6
Driver Inexperience/Confusion	1	6	1	0	8	3.2

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Major Contributing Factors by Collision Severity

Figure 3.1



Collisions by Severity Where Human Condition Was a Major Contributing Factor

Figure 3.2

Human Condition	Property Damage	Personal Injury	Fatal	Total	% of Total Factors
Driver Inattention	5,562	2,016	24	7,602	14.4
Driver Distraction	895	298	5	1,198	2.3
Had Been Drinking	300	198	9	507	1.0
Driving While Impaired	346	267	31	644	1.2
Extreme Fatigue	42	29	1	72	0.1
Fell Asleep	127	93	5	225	0.4
Driver Inexperience/Confusion	818	429	8	1,255	2.4
Lost Consciousness/Sudden Illness	25	46	2	73	0.1
Physical/Medical Disability	41	38	0	79	0.1
Drugs (Prescription or Illegal)	27	26	4	57	0.1
Defective Eyesight/Hearing	20	10	0	30	0.1
Other Human Conditions	243	120	5	368	0.7
Total	8,446	3,570	94	12,110	22.9

Collisions by Severity Where Human Action Was a Major Contributing Factor

Figure 3.3

Human Action	Property Damage	Personal Injury	Fatal	Total	% of Total Factors
Fail to Yield	2,413	872	9	3,294	6.2
Traffic Control Device Disregarded	926	358	7	1,291	2.4
Following too Closely	735	326	0	1,061	2.0
Driving too Fast for Conditions	1,129	563	18	1,710	3.2
Exceeding Speed Limit	196	141	18	355	0.7
Turning Improperly	386	126	0	512	1.0
Passing or Improper Lane Usage	669	102	3	774	1.5
Backing Unsafely	1,350	32	0	1,382	2.6
Fail to Signal	25	8	0	33	0.1
Driving Wrong Way in One Way Traffic	11	9	2	22	0.0
Taking Evasive Action	1,450	264	7	1,721	3.3
Careless Driving/Stunting	512	213	7	732	1.4
Pedestrian Action Contributed	3	2	0	5	0.0
Other Human Action	617	184	10	811	1.5
Total	10,422	3,200	81	13,703	25.9

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Collisions by Severity Where Vehicle Condition Was a Major Contributing Factor

Figure 3.4

Vehicle Condition	Property Damage	Personal Injury	Fatal	Total	% of Total Factors
Defective Brakes	84	30	0	114	0.2
Defective Lights	11	6	1	18	0.0
Defective Exhaust System	0	0	0	0	0.0
Load Shifted/Spilled	105	17	2	124	0.2
Vehicle Overloaded/Improperly Loaded	64	2	0	66	0.1
Defective Steering	29	6	0	35	0.1
Defective Suspension/Wheel Failure	69	10	1	80	0.2
Defective Tires/Tire Blowout	137	27	1	165	0.3
Defective Engine/Power Train/Wiring	59	4	0	63	0.1
Jackknife/Trailer Swing	109	12	0	121	0.2
View from Vehicle Obstructed	67	15	0	82	0.2
Other Vehicle Condition/Defective	185	24	0	209	0.4
Lights Not On	12	13	2	27	0.1
Total	931	166	7	1,104	2.1

Collisions by Severity Where Environmental Condition Was a Major Contributing Factor

Figure 3.5

Environmental Condition	Property Damage	Personal Injury	Fatal	Total	% of Total Factors
Animal Action (Wild)	10,442	252	0	10,694	20.2
Animal Action (Domestic)	317	30	0	347	0.7
Road Condition (Surface or Structure)	7,515	1,029	13	8,557	16.2
Loose Gravel	360	142	4	506	1.0
Snow Drift	458	102	0	560	1.1
Obstruction/Debris on Road	362	20	0	382	0.7
View Obstructed/Limited	661	139	3	803	1.5
Sun Glare	175	59	1	235	0.4
Construction Zone	133	24	1	158	0.3
Soft or Defective Shoulders	48	27	1	76	0.1
Lane Marking Inadequate	5	1	0	6	0.0
Traffic Control Device Not Working	28	5	0	33	0.1
Weather Conditions	1,201	388	9	1,598	3.0
Uninvolved Vehicle	1,239	122	2	1,363	2.6
Uninvolved Pedestrian	168	38	0	206	0.4
Other Environmental Condition	424	43	1	468	0.9
Total	23,536	2,421	35	25,992	49.1

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Collisions by Road System Where Human Condition Was a Major Contributing Factor

Figure 3.6

Human Condition	Urban Streets	Provincial Highways	Rural Roads	Other	% of Total	
					Total	Factors
Driver Inattention	6,601	617	270	114	7,602	14.4
Driver Distraction	977	136	64	21	1,198	2.3
Had Been Drinking	304	89	80	34	507	1.0
Driving While Impaired	458	98	55	33	644	1.2
Extreme Fatigue	20	41	6	5	72	0.1
Fell Asleep	35	167	18	5	225	0.4
Driver Inexperience/Confusion	648	285	266	56	1,255	2.4
Lost Consciousness/Sudden Illness	50	18	3	2	73	0.1
Physical/Medical Disability	55	19	4	1	79	0.1
Drugs (Prescription or Illegal)	37	11	5	4	57	0.1
Defective Eyesight/Hearing	21	7	1	1	30	0.1
Other Human Conditions	281	48	25	14	368	0.7
Total	9,487	1,536	797	290	12,110	22.9

Collisions by Road System Where Human Action Was a Major Contributing Factor

Figure 3.7

Human Action	Urban Streets	Provincial Highways	Rural Roads	Other	% of Total	
					Total	Factors
Fail to Yield	3,062	152	67	13	3,294	6.2
Traffic Control Device Disregarded	1,201	69	18	3	1,291	2.4
Following too Closely	985	58	13	5	1,061	2.0
Driving too Fast for Conditions	1,035	378	235	62	1,710	3.2
Exceeding Speed Limit	264	56	24	11	355	0.7
Turning Improperly	462	38	8	4	512	1.0
Passing or Improper Lane Usage	656	98	13	7	774	1.5
Backing Unsafely	1,317	17	23	25	1,382	2.6
Fail to Signal	19	9	3	2	33	0.1
Driving Wrong Way in One Way Traffic	20	2	0	0	22	0.0
Taking Evasive Action	845	459	302	115	1,721	3.3
Careless Driving/Stunting	561	88	54	29	732	1.4
Pedestrian Action Contributed	5	0	0	0	5	0.0
Other Human Action	627	95	50	39	811	1.5
Total	11,059	1,519	810	315	13,703	25.9

Collisions by Road System Where Vehicle Condition Was a Major Contributing Factor

Figure 3.8

Vehicle Condition	Urban Streets	Provincial Highways	Rural Roads	Other	% of Total	
					Total	Factors
Defective Brakes	88	8	13	5	114	0.2
Defective Lights	7	6	3	2	18	0.0
Defective Exhaust System	0	0	0	0	0	0.0
Load Shifted/Spilled	27	63	22	12	124	0.2
Vehicle Overloaded/Improperly Loaded	24	32	8	2	66	0.1
Defective Steering	22	8	4	1	35	0.1
Defective Suspension/Wheel Failure	18	41	15	6	80	0.2
Defective Tires/Tire Blowout	40	75	36	14	165	0.3
Defective Engine/Power Train/Wiring	48	7	6	2	63	0.1
Jackknife/Trailer Swing	16	69	27	9	121	0.2
View from Vehicle Obstructed	71	7	3	1	82	0.2
Other Vehicle Condition/Defective	105	63	26	15	209	0.4
Lights Not On	9	8	9	1	27	0.1
Total	475	387	172	70	1,104	2.1

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Collisions by Road System Where Environmental Condition Was a Major Contributing Factor

Figure 3.9

Environmental Condition	Urban Streets	Provincial Highways	Rural Roads	Other	% of Total	
					Total	Factors
Animal Action (Wild)	139	6,593	2,770	1,192	10,694	20.2
Animal Action (Domestic)	76	117	93	61	347	0.7
Road Condition (Surface or Structure)	5,341	1,887	943	386	8,557	16.2
Loose Gravel	84	75	278	69	506	1.0
Snow Drift	118	223	172	47	560	1.1
Obstruction/Debris on Road	120	173	48	41	382	0.7
View Obstructed/Limited	388	256	91	68	803	1.5
Sun Glare	177	35	19	4	235	0.4
Construction Zone	91	47	10	10	158	0.3
Soft or Defective Shoulders	4	30	32	10	76	0.1
Lane Marking Inadequate	4	1	1	0	6	0.0
Traffic Control Device Not Working	12	4	10	7	33	0.1
Weather Conditions	533	792	207	66	1,598	3.0
Uninvolved Vehicle	794	439	65	65	1,363	2.6
Uninvolved Pedestrian	197	3	1	5	206	0.4
Other Environmental Condition	98	182	133	55	468	0.9
Total	8,176	10,857	4,873	2,086	25,992	49.1

Major Contributing Factors in Collisions by Road System

Figure 3.10

