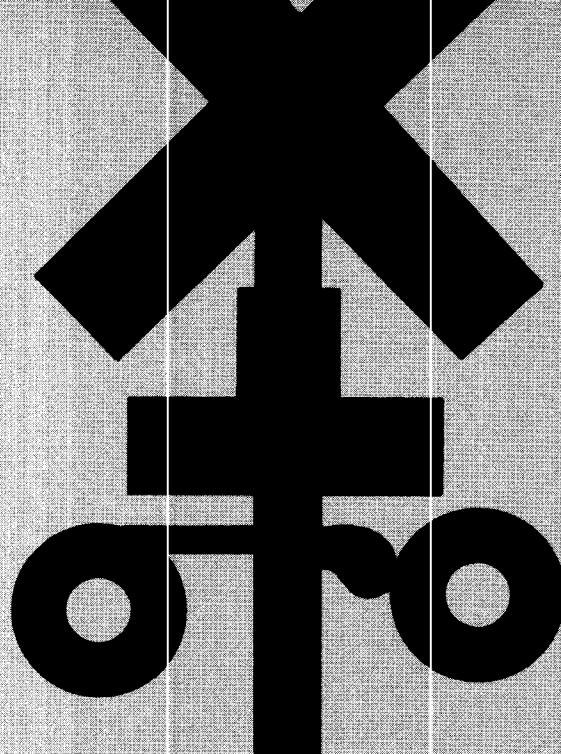




FOR THE YEAR ENDED DECEMBER 31, 1969

RAIL-HIGHWAY GRADE-CROSSING ACCIDENTS

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
BUREAU OF RAILROAD SAFETY**

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DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

PREFACE

This is the thirty-fifth annual statistical report on rail-highway grade crossing accidents based upon reports of rail carriers filed with the Federal Railroad Administration pursuant to the Accident Reports Act of 1910 (as amended).

The purpose of this report is to direct attention to the hazards inherent at public grade crossings, and to provide basic statistical information in support of the overall Department of Transportation program to promote the safety of both rail and highway traffic at crossings.

The 1969 figures show a 1.1 percent decrease, as compared with 1968, in the number of grade crossing accidents and a 3 percent decline in the number of casualties. Data in this report is not such as to identify the vast combination of factors leading to such decrease; however, the tabular information provides valuable material for use in identifying specific trends and conditions surrounding crossing accidents.

In reference to the tables shown in this report, it should be noted that only Tables A, B, and C, and Table 1 pertain to rail-highway grade crossing accidents of all kinds. All of the other tables pertain to collisions involving motor vehicles, such as automobiles, buses, motortrucks and motorcycles.

R. N. Whitman
Administrator

SUMMARY

Rail-Highway Grade Crossing Accidents of All Kinds

In 1969, there were 3,774 crossing accidents involving pedestrians, automobiles, motortrucks, buses, motorcycles, and other vehicles or machines. The above accidents resulted in 1,490 deaths and 3,669 injuries, and show what is hopefully a decreasing trend in all three categories.

The following three tables show data for the ten-year period, 1960 - 1969.

Table A. Total number of accidents and casualties at rail-highway grade crossings

Year	No. of accidents	Killed	Injured
Average 1960-69	3,612	1,472	3,654
1960	3,195	1,364	3,424
1961	3,204	1,291	3,514
1962	3,149	1,241	3,192
1963	3,373	1,302	3,524
1964	3,755	1,543	3,783
1965	3,820	1,534	3,801
1966	4,097	1,780	4,043
1967	3,932	1,632	3,812
1968	3,816	1,546	3,774
1969	3,774	1,490	3,669

Table B. Ratios of the number of crossing accidents and casualties to the average of the 1960-1969 period.

Year	No. of accidents	Killed	Injured
Average number, 1960-1969	3,612	1,472	3,654
	Percent	Percent	Percent
1960-1969	100.00	100.00	100.00
1960	90.20	94.46	94.82
1961	90.46	89.40	97.31
1962	89.90	85.94	88.40
1963	95.21	90.17	97.59
1964	106.01	106.86	104.76
1965	107.85	106.23	105.26
1966	115.67	123.27	111.96
1967	111.01	113.02	105.57
1968	107.74	107.06	104.51
1969	104.49	101.22	100.41

Table C. Ratio of number of casualties to number of crossing accidents

Year	Killed	Injured
1960	0.427	1.072
1961	0.403	1.097
1962	0.394	1.014
1963	0.386	1.045
1964	0.411	1.007
1965	0.402	0.995
1966	0.434	0.987
1967	0.415	0.969
1968	0.405	0.989
1969	0.395	0.972

Table C shows that with respect to deaths, and injuries the severity of crossing accidents in 1969 was slightly lower than in the preceding year.

Grade Crossing Accidents Involving Motor Vehicles

Of the 3,774 crossing accidents of all kinds in 1969, 3,572 involved collisions between railroad movements and motor vehicles, and resulted in 1,381 deaths and 3,578 injuries. In 2,389 collisions, or 66.88 percent, trains struck motor vehicles, resulting in 1,035, or 74.95 percent, of the deaths and in 2,267, or 63.36 percent of the injuries. In the other 1,183 collisions, or 33.12 percent, motor vehicles struck the sides of train movements, resulting in 346, or 25.05 percent, of the deaths and in 1,311, or 36.64 percent, of the injuries.

The number of crossing accidents in 1969 involving collisions with motor vehicles show a decrease from 1968. In comparison with last year, there was also a decrease of 67 in the number of deaths and 87 in the number of injuries.

Table D. Number of crossing accidents involving motor vehicles, per million vehicles registered.

Year	Number of accidents	Number of motor vehicles registered	Number of accidents per million vehicles registered
		(Thousands)	
1960	2,980	74,660	39.9
1961	2,931	76,442	38.3
1962	2,944	79,682	36.9
1963	3,195	83,478	38.3
1964	3,539	87,281	40.5
1965	3,602	91,738	39.3
1966	3,862	95,929	40.3
1967	3,733	98,942	37.7
1968	3,603	103,150	34.9
1969	3,572	106,957	33.4

Types of Crossing Protection Provided

Of the 3,572 collisions, 1,491, or 41.74 percent, occurred at crossings which were specially protected by one of the following: Lowered gates, trainman, watchman, audible and visual signals, audible signals, or visible signals. The other 2,081, or 58.26 percent, occurred at crossings protected by signals or signs that did not indicate the approach of trains.

The latest available statistics show a total of 211,993 rail-highway crossings at grade. Of these crossings, 45,502 or 21.46 percent, were specially protected; 166,491, or 78.54 percent, were not specially protected.

Times and Weather Conditions Involved in Motor Vehicle Collisions

Of the 3,572, crossing collisions, 2,208 or 61.81 percent, occurred in daylight, and 1,364 or 38.19 percent, took place at night. There were 2,407 collisions, or 67.39 percent, in clear weather, and 1,165, or 32.61 percent, under cloudy or inclement weather conditions.

Types of Motor Vehicles Involved in Crossing Accidents

Of the 3,572 collisions between trains and motor vehicles, automobiles were involved in 2,762, or 77.32 percent; buses in 12, or 0.34 percent; motortrucks in 764, or 21.39 percent, and motorcycles in 34, or 0.95 percent.

DEFINITION OF TERMS

Classification of Accidents. A public rail-highway grade crossing accident is one which results in (a) a reportable casualty to a person or (b) in a collision or derailment of a train, locomotive, or car, or other train accident and in which there is more than \$750 damage to equipment, track, or roadbed.

Classification of Casualties. Reportable casualties are:

(a) Death of a person: A death resulting from an accident within 24 hours immediately following the accident is reportable as a fatality; if death occurs after the expiration of the 24-hour period, the casualty is reported as an injury and also as a subsequent fatality.

(b) Injury to a railroad employee if the injury is sufficient to incapacitate the injured persons from performing his or her duties for a period of more than 24 hours in the aggregate during the 10 days immediately following the accident. (Prior to January 1, 1961, the injury was not reportable unless the employee was incapacitated for a period of more than three days in the aggregate during the 10 days immediately following the accident).

(c) Injury to a person other than a railroad employee if the injury is sufficient to incapacitate the injured person from following his or her customary vocation or mode of life for a period of more than 24 hours in the aggregate during the 10 days immediately following the accident.

Classification of Crossings. A highway crossing comprises all the tracks within, or immediately adjacent to, the railroad right-of-way, owned or leased, at an intersection with the highway. Crossings with streets, avenues, and rural highways, are included. Only public crossings are covered. Highway crossings with industrial tracks only, not owned or leased by a railroad, are excluded.

The type of signaling device for restricting use of a crossing by trains, highway vehicles, or pedestrians determines whether the crossing is "specially protected" or "not specially protected." "Specially protected" crossings are those protected by: Gates operated 24 hours per day or less; trainmen; watchmen on duty 24 hours per day or less; or devices that indicate the approach of trains. Crossings "not specially protected" are those that merely indicate the proximity of a crossing by fixed signs, and those without stationary signs or other cautionary fixtures.

Classification of Persons. Persons using crossings as a continuation of a street or road are divided into two classes, "trespassers" and "non-trespassers." A person is not reported as a trespasser on a highway grade crossing unless the crossing is protected by gates, or other similar barriers, which were closed when the person was on the crossing, or unless the person attempted to pass over or under trains or cars at the crossing.

There are instances in which persons on trains may be killed or injured. Such persons may be classified as passengers, employees on duty, nontrespassers, or trespassers.

Table 1. Rail-Highway Accidents of All Kinds and Casualties, 1969-1968*

Cause of accident	Accidents				Killed				Injured			
	1969		1968		1969		1968		1969		1968	
	No.	Percent of total	No.	Percent of total	No.	Percent of total	No.	Percent of total	No.	Percent of total	No.	Percent of total
Trains striking or being struck by:												
Pedestrians -----	110	2.91	117	3.07	79	5.30	75	4.85	32	0.87	43	1.14
Passenger autos -----	2,762	73.19	2,818	73.85	1,098	73.69	1,171	75.74	2,940	80.13	2,969	78.67
Motor buses -----	12	.32	4	.10	2	.13	10	.65	20	.55	33	.87
Motortrucks -----	764	20.24	740	19.39	262	17.58	243	15.72	596	16.24	643	17.04
Motorcycles -----	34	.90	41	1.07	19	1.27	24	1.55	22	.60	20	.53
Other vehicles or machines -----	51	1.35	53	1.39	23	1.54	20	1.29	28	.76	33	.87
Pedestrians passing over or under -----	3	.08	6	.15	2	.13	1	.06	1	.03	5	.13
Miscellaneous -----	38	1.01	37	.97	5	.36	2	.13	30	.82	28	.74
Total -----	3,774	100.00	3,816	100.00	1,490	100.00	1,546	100.00	3,669	100.00	3,774	100.00

* Nontrain accidents excluded.

Table 2. Nature of Rail-Highway Accidents Involving Motor Vehicles, 1969-1966

	Number of accidents				Killed				Injured			
	1969	1968	1967	1966	1969	1968	1967	1966	1969	1968	1967	1966
Motor vehicle:												
Struck by train -----	2,389	2,395	2,456	2,595	1,035	1,089	1,158	1,301	2,267	2,333	2,218	2,445
Ran into side of train ---	1,183	1,208	1,277	1,267	346	359	362	356	1,311	1,332	1,508	1,482
Total -----	3,572	3,603	3,733	3,862	1,381	1,448	1,520	1,657	3,578	3,665	3,726	3,927

Percent of total

Motor vehicle:												
Struck by train -----	66.88	66.47	65.79	67.19	74.95	75.21	76.18	78.52	63.36	63.66	59.53	62.26
Ran into side of train ---	33.12	33.53	34.21	32.81	25.05	24.79	23.82	21.48	36.64	36.34	40.47	37.74
Total -----	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Nature of collision	Accidents in 1969		Killed in 1969		Injured in 1969	
	Daylight	Dark	Daylight	Dark	Daylight	Dark
Struck by train:						
Passenger automobiles----	1,182	619	587	232	1,164	657
Motor buses -----	8	2	-	2	17	1
Motortrucks -----	483	83	178	31	361	59
Motorcycles -----	8	4	2	3	6	2
Total -----	1,681	708	767	268	1,548	719
Ran into side of train:						
Passenger automobiles ---	381	580	120	159	424	695
Motor buses -----	2	-	-	-	2	-
Motortrucks -----	129	69	38	15	99	77
Motorcycles -----	15	7	13	1	8	6
Total -----	527	656	171	175	533	778

Table 3. Accidents Involving Motor Vehicles, Classified as "Ran into Side of Train," 1969-1967

Part of train struck	Number of accidents			Percent of total			Number in 1969	
	1969	1968	1967	1969	1968	1967	Daylight	Dark
Head end of train								
Motive power pulling or running light -----	738	754	785	62.38	62.42	61.47	415	323
Lead car shoved -----	64	84	74	5.41	6.95	5.79	24	40
Other part at or near head end of train 1/ -----	2	1	5	.17	.08	.39	1	1
Sub-total -----	804	839	864	67.96	69.45	67.66	440	364
Last Unit of train -----	32	28	36	2.70	2.32	2.82	10	22
Other parts of train consisting of more than 3 units:								
First quarter of train -----	150	137	140	12.68	11.34	10.96	51	99
Second quarter of train -----	65	57	104	5.50	4.72	8.14	12	53
Third quarter of train -----	45	61	54	3.80	5.05	4.23	3	42
Fourth quarter of train 2/ -----	79	75	72	6.68	6.21	5.64	11	68
Sub-total -----	339	330	370	28.66	27.32	28.97	77	262
Part of train not reported -----	8	11	7	.68	.91	.55	-	8
Grand Total -----	1,183	1,208	1,277	100.00	100.00	100.00	527	656

1/ Includes accidents involving trains of less than four cars where the motive power unit was not involved.

2/ Excludes accidents involving last unit of train.

Table 4. Nature of Rail-Highway Collision Involving Motor Vehicles and Part of 24-hour Period, 1969-1966

Part of 24-hour period	Total number of accidents				Percent of total				Struck by train in 1969		Ran into side of train in 1969	
									Persons		Persons	
	1969	1968	1967	1966	1969	1968	1967	1966	Killed	Injured	Killed	Injured
Daylight -----	2,208	2,167	2,273	2,354	61.81	60.14	60.89	67.19	767	1,548	171	533
Dark -----	1,364	1,436	1,460	1,508	38.19	39.86	39.11	32.81	268	719	175	778
Total -----	3,572	3,603	3,733	3,862	100.00	100.00	100.00	100.00	1,035	2,267	346	1,311

Table 5. Rail-Highway Accidents Involving Motor Vehicles, According to Hour, 1969-1966

Hour	Total				Struck by train				Ran into side of train			
	1969	1968	1967	1966	1969	1968	1967	1966	1969	1968	1967	1966
Midnight to 12:59 A.M. --	116	126	124	132	50	60	48	56	66	66	76	76
1 to 1:59 A.M. -----	113	118	123	130	45	46	41	51	68	72	82	79
2 to 2:59 " " -----	106	102	109	91	34	37	38	35	72	65	71	56
3 to 3:59 " " -----	63	68	72	69	23	25	27	28	40	43	45	41
4 to 4:59 " " -----	46	55	55	61	17	24	21	29	29	31	34	32
5 to 5:59 " " -----	75	43	53	94	34	25	28	62	41	18	25	32
6 to 6:59 " " -----	118	127	129	142	86	89	88	98	32	38	41	44
7 to 7:59 " " -----	179	187	210	195	144	134	169	150	35	53	41	45
8 to 8:59 " " -----	182	170	176	190	143	135	134	147	39	35	42	43
9 to 9:59 " " -----	162	162	164	201	117	129	129	162	45	33	35	39
10 to 10:59 " " -----	162	188	196	206	124	149	156	157	38	39	40	49
11 to 11:59 " " -----	193	165	196	192	151	122	150	142	42	43	46	50
Noon to 12:59 P.M. -----	169	167	201	196	127	125	154	156	42	42	47	40
1 to 1:59 " " -----	186	183	162	189	133	144	129	148	53	39	33	41
2 to 2:59 " " -----	204	176	176	204	159	128	130	164	45	48	46	40
3 to 3:59 " " -----	213	199	211	198	160	154	167	150	53	45	44	48
4 to 4:59 " " -----	216	225	212	193	176	171	157	151	40	54	55	42
5 to 5:59 " " -----	203	184	194	187	153	125	141	134	50	59	53	53
6 to 6:59 " " -----	157	201	183	181	107	148	121	111	50	53	62	70
7 to 7:59 " " -----	160	158	174	182	105	95	99	108	55	63	75	74
8 to 8:59 " " -----	137	140	167	160	79	89	101	92	58	51	66	68
9 to 9:59 " " -----	153	162	138	165	90	96	80	105	63	66	58	60
10 to 10:59 " " -----	131	143	151	152	76	62	75	77	55	81	76	75
11 to 11:59 " " -----	128	154	157	152	56	83	73	82	72	71	84	70
Total -----	3,572	3,603	3,733	3,862	2,389	2,395	2,456	2,595	1,183	1,208	1,277	1,267

Table 6. Rail-Highway Accidents Involving Motor Vehicles, According to Day, 1969-1966

Day	Total				Struck by train				Ran into side of train			
	1969	1968	1967	1966	1969	1968	1967	1966	1969	1968	1967	1966
Sunday -----	365	377	411	379	230	244	256	257	135	133	155	122
Monday -----	504	501	497	517	346	348	346	354	158	153	151	163
Tuesday -----	483	553	523	549	333	373	362	392	150	180	161	157
Wednesday -----	524	508	502	583	350	342	337	375	174	166	165	208
Thursday -----	518	530	512	557	336	365	340	373	182	165	172	184
Friday -----	573	562	666	579	374	346	444	377	199	216	222	202
Saturday -----	605	572	622	698	420	377	371	467	185	195	251	231
Total -----	3,572	3,603	3,733	3,862	2,389	2,395	2,456	2,595	1,183	1,208	1,277	1,267

Table 7. Rail-Highway Accidents Involving Motor Vehicles, by Month, 1969-1966

Month	Total				Struck by train				Ran into side of train			
	1969	1968	1967	1966	1969	1968	1967	1966	1969	1968	1967	1966
January -----	367	389	394	431	255	248	264	316	112	141	130	115
February -----	318	346	373	351	224	239	263	239	94	107	110	112
March -----	328	324	277	310	207	215	188	211	121	109	89	99
April -----	242	218	262	270	156	150	173	182	86	68	89	88
May -----	248	252	258	264	170	168	172	186	78	84	86	78
June -----	236	214	209	240	157	139	140	155	79	75	69	85
July -----	211	223	253	236	140	146	155	150	71	77	98	86
August -----	264	260	284	261	164	171	186	173	100	89	98	88
September -----	253	230	275	277	159	141	173	173	94	89	102	104
October -----	341	345	333	328	235	211	222	206	106	134	111	122
November -----	364	410	389	403	249	283	250	265	115	127	139	138
December -----	400	392	426	491	273	284	270	339	127	108	156	152
Total -----	3,572	3,603	3,733	3,862	2,389	2,395	2,456	2,595	1,183	1,208	1,277	1,267

Table 8. Types of Motor Vehicles Involved in Crossing Accidents, 1969-1966

Motor vehicle	Number of accidents				Year 1969			
					Number of motor vehicles registered (thousands)	Number of accidents per million vehicles registered	Number of acci- dents occurring	
	1969	1968	1967	1966			Daylight	Dark
Automobile -----	2,762	2,818	2,906	2,964	86,560	31.91	1,563	1,199
Bus -----	12	4	11	23	363	33.06	10	2
Motortruck -----	764	740	780	837	17,779	42.97	612	152
Motorcycle -----	34	41	36	38	2,255	15.08	23	11
Total -----	3,572	3,603	3,733	3,862	106,957	33.40	2,208	1,364

Table 9. Rail-Highway Accidents Involving Motor Vehicles, by Kind of Train, 1969-1966

Kind of train	Train Miles Class I railroads (thousands)		Number of accidents	Number per million Train Miles				Number of accidents occurring in 1969	
	1969	1968		1969	1968	1967	1966	Daylight	Dark
	1969	1968	1969	1969	1968	1967	1966	Daylight	Dark
Freight -----	433,264	429,278	2,634	6.08	6.06	6.31	6.02	1,672	962
Passenger -----	107,106	122,591	429	4.01	3.92	3.74	3.88	318	111
Work E/ -----	5,805	5,938	58	9.99	8.08	8.33	8.98	47	11
Yard (switching) & other 1/---	262,117	261,244	451	1.72	1.81	1.85	2.40	171	280
Total -----	808,292	819,051	3,572	4.42	4.40	4.48	4.64	2,208	1,364

1/ Excluding switching and terminal companies.
E/ Estimate.

Table 10. Rail-Highway Accidents Involving Motor Vehicles, by Type of Crossing Protection, 1969

Type of crossing protection at time of accident	Killed	Injured	Number of accidents	Number of crossings 1/ on Dec. 31, 1968	Accidents per 100 crossings	Number occurring		Struck by train		Ran into side of train	
						Daylight	Dark	Daylight	Dark	Daylight	Dark
Lowered gates -----	71	121	136	8,592	1.58	44	92	36	61	8	31
Trainman -----	7	74	68	-	-	11	57	6	17	5	40
Watchman -----	1	5	6	651	.92	2	4	-	2	2	2
Audible & visible signal -----	263	784	802	21,528	3.73	500	302	371	158	129	144
Audible signal -----	9	18	18	1,442	1.25	12	6	11	4	1	2
Visible signal -----	186	452	461	13,289	3.47	300	161	225	86	75	75
Total special -----	537	1,454	1,491	45,502	3.28	869	622	649	328	220	294
Signal or sign not of a type indicating approach of train -----	844	2,124	2,081	166,491	1.25	1,339	742	1,032	380	307	362
Grand total -----	1,381	3,578	3,572	211,993	1.68	2,208	1,364	1,681	708	527	656

1/ On class I line-haul railroads and switching and terminal companies. Data for 1969 not available.

Note: Where more than one type of protection was afforded at the time of accident, the accident was classified according to the type first shown above.

Table 11. Rail-Highway Accidents Involving Motor Vehicles, According to Operation of Crossing Protection, 1969-1966

Operation of crossing protection	Number of accidents				Year 1969					
					Number occurring		Struck by train		Ran into side of train	
					Daylight	Dark	No. occurring		No. occurring	
	1969	1968	1967	1966			Daylight	Dark	Daylight	Dark
Automatic:										
Both sides of crossing ---	1,380	1,441	1,465	1,395	831	549	622	303	209	246
Side of approach -----	27	31	28	53	21	6	17	3	4	3
Opposite side -----	7	13	24	14	5	2	5	-	-	2
Manual:										
Both sides of crossing ---	8	6	15	15	-	8	-	5	-	3
Side of approach -----	67	84	82	67	12	55	5	15	7	40
Opposite side -----	4	2	3	12	1	3	1	2	-	1
Other: 1/										
Both sides of crossing ---	1,776	1,744	1,736	1,877	1,129	647	856	320	273	327
Side of approach -----	163	157	218	252	114	49	94	27	20	22
Opposite side -----	111	100	125	130	91	30	67	21	14	9
Not reported -----	29	25	37	47	14	15	14	12	-	3
Total -----	3,572	3,603	3,733	3,862	2,208	1,364	1,681	708	527	656

1/ Not of a type indicating approach of train.

Table 12. Crossing Accidents After Dark Involving Motor Vehicles, According to Illumination of Crossing, 1969-1966

Crossing illumination	Accidents after dark												Year 1969	
	Number of Accidents				Struck by train				Ran into side of train				Persons	
	1969	1968	1967	1966	1969	1968	1967	1966	1969	1968	1967	1966	Killed	Injured
Lighted -----	648	647	645	656	347	357	322	364	301	290	323	292	181	718
Not lighted -----	716	789	815	852	361	399	391	422	355	390	424	430	262	779
Total -----	1,364	1,436	1,460	1,508	708	756	713	786	656	680	747	722	443	1,497

Table 13. Rail-Highway Accidents Involving Motor Vehicles, According to Speed and Kind of Train Involved, 1969

Speed of train (miles per hour)	Number of acci- dents	Struck by train		Ran into side of train		Kind of train					
		Number occurring		Number occurring		Freight		Passenger		Yard (switching) and other	
		Daylight	Dark	Daylight	Dark	Number	Percent of total	Number	Percent of total	Number	Percent of total
0 - 9 ^{1/} -----	679	110	143	70	356	356	13.52	8	1.87	315	61.89
10 - 19 -----	541	214	134	79	114	389	14.77	27	6.30	125	24.56
20 - 29 -----	631	322	132	114	63	530	20.12	55	12.82	46	9.04
30 - 39 -----	615	343	112	106	54	555	21.07	49	11.42	11	2.16
40 - 49 -----	501	292	80	98	31	438	16.63	56	13.05	7	1.37
50 - 59 -----	322	218	54	30	20	262	9.95	56	13.05	4	.78
60 - 69 -----	166	113	27	18	8	94	3.57	71	16.55	1	.20
70 - 79 -----	101	63	19	12	7	8	.30	93	21.68	-	-
80 - 89 -----	7	5	2	-	-	-	-	7	1.63	-	-
90 and over -----	9	1	5	-	3	2	.07	7	1.63	-	-
Total -----	3,572	1,681	708	527	656	2,634	100.00	429	100.00	509	100.00

^{1/} Includes standing trains.

Table 14. Rail-Highway Accidents Involving Motor Vehicles, According to Weather Conditions, 1969

Weather	Number of accidents		Struck by train		Ran into side of train	
	Number	Percent of total	Number occurring		Number occurring	
			Daylight	Dark	Daylight	Dark
Clear -----	2,407	67.39	1,174	436	369	428
Cloudy -----	691	19.34	347	146	88	110
Rain -----	291	8.15	106	88	44	53
Snow, sleet or hail --	93	2.60	30	27	14	22
Fog -----	90	2.52	24	11	12	43
Dust -----	-	-	-	-	-	-
Total -----	3,572	100.00	1,681	708	527	656

Table 15. Rail-Highway Accidents Involving Motor Vehicles, According to Number of Cars in Train and Kind of Train, 1969

Number of cars in train	Number of accidents				Percent of total				Number of accidents occurring	
	Total	Freight	Passenger	Yard (switching) and other	Total	Freight	Passenger	Yard (switching) and other	Daylight	Dark
None 1/ -----	220	93	3	124	6.16	3.53	0.70	24.36	101	119
1 - 9 -----	1,027	465	345	217	28.75	17.65	80.42	42.63	669	358
10 - 19 -----	444	292	73	79	12.43	11.09	17.02	15.52	275	169
20 - 29 -----	248	205	6	37	6.94	7.78	1.40	7.27	137	111
30 - 39 -----	230	207	-	23	6.44	7.86	-	4.52	148	82
40 - 49 -----	170	160	1	9	4.76	6.07	.23	1.77	92	78
50 - 59 -----	180	174	-	6	5.04	6.61	-	1.18	111	69
60 - 69 -----	183	177	-	6	5.12	6.72	-	1.18	120	63
70 - 79 -----	167	164	1	2	4.68	6.23	.23	.39	120	47
80 - 89 -----	178	177	-	1	4.98	6.72	-	.20	114	64
90 - 99 -----	139	137	-	2	3.89	5.20	-	.39	83	56
100 - 109 -----	125	123	-	2	3.50	4.67	-	.39	74	51
110 - 119 -----	95	94	-	1	2.66	3.57	-	.20	62	33
120 - 129 -----	72	72	-	-	2.01	2.73	-	-	48	24
130 - 139 -----	46	46	-	-	1.29	1.75	-	-	28	18
140 - 149 -----	25	25	-	-	.70	.95	-	-	15	10
150 and over -----	21	21	-	-	.59	.80	-	-	10	11
Not reported or unknown -----	2	2	-	-	.06	.07	-	-	1	1
Total -----	3,572	2,634	429	509	100.00	100.00	100.00	100.00	2,208	1,364

1/ Locomotives only.

Table 16. Rail-Highway Accidents Involving Motor Vehicles, According to Speed of Motor Vehicles, 1969

Speed of motor vehicle (miles per hour)	Total				Struck by train						Ran into side of train					
	Number of Accidents	Percent of total	Killed	Injured	Daylight			Dark			Daylight			Dark		
					Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured
Standing -----	377	10.55	122	359	267	90	270	106	31	85	3	-	4	1	1	-
1 - 9 -----	351	9.83	131	345	217	73	216	87	45	83	22	6	19	25	7	27
10 - 19 -----	658	18.42	233	621	387	172	328	148	44	161	47	5	46	76	12	84
20 - 29 -----	622	17.41	228	652	285	140	271	138	56	154	86	20	92	113	12	135
30 - 39 -----	464	12.99	175	486	188	93	165	81	33	91	85	23	96	110	26	134
40 - 49 -----	249	6.97	110	256	71	39	75	33	13	35	69	31	60	76	27	86
50 - 59 -----	221	6.19	108	225	62	42	46	22	17	20	69	24	67	68	25	92
60 and over -----	124	3.47	88	125	27	21	21	6	3	5	41	29	38	50	35	61
High speed ^{1/} -----	15	.42	10	10	3	4	2	1	-	1	4	4	2	7	2	5
Not reported -----	491	13.75	176	499	174	93	154	86	26	84	101	29	107	130	28	154
Total -----	3,572	100.00	1,381	3,578	1,681	767	1,548	708	268	719	527	171	533	656	175	778

^{1/} Miles per hour not known.

Table 17. Rail-highway Accidents Involving Motor Vehicles, by States, 1969-1968

State	Total number of accidents		Total persons				Struck by train						Ran into side of train					
			Killed		Injured		1969			1968			1969			1968		
	1969	1968	1969	1968	1969	1968	Number of accidents	Persons		Number of accidents	Persons		Number of accidents	Persons		Number of accidents	Persons	
								Killed	Injured		Killed	Injured		Killed	Injured		Killed	Injured
1 Alabama -----	95	111	22	34	108	118	48	13	53	23	5	40	9	3	9	15	1	16
2 Alaska -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 Arizona -----	22	23	18	12	14	18	4	3	1	4	5	1	8	8	4	6	2	8
4 Arkansas -----	59	63	32	31	48	63	39	24	27	13	7	14	2	1	1	5	-	6
5 California -----	223	221	72	91	217	193	93	44	75	55	13	57	31	9	33	44	6	52
6 Colorado -----	31	20	10	10	27	18	17	6	16	5	4	2	4	-	4	5	-	5
7 Connecticut -----	4	3	2	2	3	1	2	1	2	2	1	1	-	-	-	-	-	-
8 Delaware -----	6	8	-	4	5	7	2	-	2	3	-	2	1	-	1	-	-	-
9 Florida -----	148	140	59	64	160	139	56	22	51	28	15	28	34	13	47	30	9	34
10 Georgia -----	124	139	49	50	131	158	69	33	65	25	9	30	13	3	12	17	4	24
11 Hawaii -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12 Idaho -----	33	18	20	15	32	11	17	15	16	7	3	8	4	2	2	5	-	6
13 Illinois -----	219	247	98	89	213	238	93	56	71	45	19	50	29	10	24	52	13	68
14 Indiana -----	189	200	86	73	192	205	95	49	88	44	21	43	21	10	26	29	6	35
15 Iowa -----	101	91	49	40	94	91	52	31	43	11	1	12	13	7	7	25	10	32
16 Kansas -----	107	111	58	43	91	125	48	33	34	13	10	12	27	10	27	19	5	18
17 Kentucky -----	49	48	22	21	47	43	31	16	27	6	3	8	5	1	5	7	2	7
18 Louisiana -----	77	88	29	46	84	87	32	13	40	18	4	20	16	8	17	11	4	7
19 Maine -----	4	13	1	3	3	14	3	1	2	-	-	-	1	-	1	-	-	-
20 Maryland -----	20	16	2	3	18	16	10	2	5	3	-	3	4	-	5	3	-	5
21 Massachusetts -----	12	14	3	1	15	17	8	1	12	2	-	2	-	-	-	2	2	1
22 Michigan -----	183	172	69	71	195	177	66	38	67	34	9	35	34	10	36	49	12	57
23 Minnesota -----	116	98	51	51	104	88	54	29	40	24	6	26	17	6	17	21	10	21
24 Mississippi -----	92	72	27	24	116	84	51	18	60	13	1	17	9	2	16	19	6	23
25 Missouri -----	103	113	34	49	93	100	63	20	54	16	3	17	19	10	14	5	1	8
26 Montana -----	16	19	13	8	12	15	7	4	6	6	7	5	1	1	-	2	1	1
27 Nebraska -----	59	56	34	40	61	38	36	26	28	8	3	14	7	2	10	8	3	9
28 Nevada -----	6	6	3	5	3	6	3	2	1	2	1	1	-	-	-	1	-	1
29 New Hampshire -----	1	10	-	-	1	10	-	-	-	1	-	1	-	-	-	-	-	-
30 New Jersey -----	39	45	12	23	39	58	23	10	20	4	1	3	3	-	3	9	1	13
31 New Mexico -----	9	10	4	6	6	9	4	2	3	1	-	1	-	-	-	4	2	2
32 New York -----	75	64	34	20	74	58	29	13	26	11	12	9	18	5	17	17	4	22
33 North Carolina -----	95	110	36	47	90	124	44	20	48	23	10	13	14	3	15	14	3	14
34 North Dakota -----	20	27	8	8	14	33	11	7	7	2	-	2	5	1	3	2	-	2
35 Ohio -----	256	252	93	108	249	258	113	45	103	69	25	66	22	5	24	52	18	56
36 Oklahoma -----	88	74	32	28	85	92	49	24	44	8	2	9	20	4	20	11	2	12
37 Oregon -----	61	70	20	26	59	69	28	8	23	14	8	12	7	1	12	12	3	12
38 Pennsylvania -----	85	61	26	26	89	78	33	7	35	22	16	23	13	-	11	17	3	20
39 Rhode Island -----	1	-	-	-	3	-	1	-	3	-	-	-	-	-	-	-	-	-
40 South Carolina -----	70	75	25	29	83	86	39	12	46	12	6	11	10	1	10	9	6	16
41 South Dakota -----	14	7	10	1	12	10	6	3	5	1	-	3	-	-	-	7	7	4
42 Tennessee -----	68	80	26	26	63	76	38	16	35	15	6	10	6	4	4	9	-	14
43 Texas -----	320	305	105	112	335	328	152	53	159	60	20	64	53	20	44	55	12	68
44 Utah -----	20	24	13	14	23	22	10	1	7	11	-	7	2	2	10	2	1	1
45 Vermont -----	6	4	2	2	5	3	3	2	1	-	-	-	2	-	3	1	-	1
46 Virginia -----	52	47	12	17	56	46	21	5	23	15	2	16	8	4	8	8	1	9
47 Washington -----	60	81	22	35	54	93	24	14	20	14	3	13	10	1	10	12	4	11
48 West Virginia -----	22	17	3	4	20	20	13	3	11	5	-	4	-	-	-	4	-	5
49 Wisconsin -----	108	103	33	34	128	116	38	11	36	19	7	19	20	4	21	31	11	52
50 Wyoming -----	4	7	2	2	4	6	3	2	3	1	-	1	-	-	-	-	-	-
51 District of Columbia -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52 State Unknown -----	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53 Total -----	3,572	3,603	1,381	1,448	3,578	3,665	1,681	767	1,548	708	268	719	527	171	533	656	175	778

Table 18. Rail-highway Accidents by States and Type of Motor Vehicles Involved, 1969

		Total			Automobile			Buses			Motortrucks			Motorcycles		
		Number of accidents	Persons		Number of accidents	Persons		Number of accidents	Persons		Number of accidents	Persons		Number of accidents	Persons	
			Killed	Injured		Killed	Injured		Killed	Injured		Killed	Injured		Killed	Injured
1	Alabama	95	22	108	75	16	85	-	-	-	20	6	23	-	-	-
2	Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Arizona	22	18	14	19	16	13	-	-	-	3	2	1	-	-	-
4	Arkansas	59	32	48	47	22	42	-	-	-	12	10	6	-	-	-
5	California	223	72	217	162	51	177	-	-	-	53	17	35	8	4	5
6	Colorado	31	10	27	24	5	22	-	-	-	7	5	5	-	-	-
7	Connecticut	4	2	3	4	2	3	-	-	-	-	-	-	-	-	-
8	Delaware	6	-	5	3	-	3	-	-	-	3	-	2	-	-	-
9	Florida	148	59	160	125	53	143	1	-	1	19	4	13	3	2	3
10	Georgia	124	49	131	86	39	97	1	-	1	37	10	33	-	-	-
11	Hawaii	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Idaho	33	20	32	18	10	22	-	-	-	13	9	9	2	1	1
13	Illinois	219	98	213	182	82	187	-	-	-	35	14	25	2	2	1
14	Indiana	189	86	192	152	72	160	-	-	-	37	14	32	-	-	-
15	Iowa	101	49	94	79	38	77	1	-	2	21	11	15	-	-	-
16	Kansas	107	58	91	76	42	74	1	2	-	30	14	17	-	-	-
17	Kentucky	49	22	47	38	18	36	1	-	1	10	4	10	-	-	-
18	Louisiana	77	29	84	56	20	67	-	-	1	19	8	16	1	1	-
19	Maine	4	1	2	2	-	2	-	-	-	2	1	1	-	-	-
20	Maryland	20	2	18	12	1	15	-	-	-	8	1	3	-	-	-
21	Massachusetts	12	3	15	11	3	11	-	-	-	1	-	4	-	-	-
22	Michigan	183	69	195	155	56	169	-	-	-	24	10	23	4	3	3
23	Minnesota	116	51	104	95	48	84	-	-	-	20	3	19	1	-	1
24	Mississippi	92	27	116	73	20	100	-	-	-	19	7	16	-	-	-
25	Missouri	103	34	93	61	18	65	2	-	2	38	13	26	2	3	-
26	Montana	16	13	12	10	8	11	-	-	-	6	5	1	-	-	-
27	Nebraska	59	34	61	38	26	44	-	-	-	21	8	17	-	-	-
28	Nevada	6	3	3	5	2	3	-	-	-	1	1	-	-	-	-
29	New Hampshire	1	-	1	1	-	1	-	-	-	-	-	-	-	-	-
30	New Jersey	39	12	39	30	6	35	-	-	-	9	6	4	-	-	-
31	New Mexico	9	4	6	7	2	5	-	-	-	2	2	1	-	-	-
32	New York	75	34	74	59	32	65	-	-	-	16	2	9	-	-	-
33	North Carolina	95	36	90	72	27	71	1	-	1	21	8	18	1	1	-
34	North Dakota	20	8	14	14	4	12	-	-	-	6	4	2	-	-	-
35	Ohio	256	93	249	225	91	220	1	-	3	27	2	23	3	-	3
36	Oklahoma	88	32	85	66	28	63	-	-	-	21	4	21	1	-	1
37	Oregon	61	20	59	44	18	46	-	-	-	17	2	13	-	-	-
38	Pennsylvania	85	26	89	62	24	70	-	-	-	22	2	18	1	-	1
39	Rhode Island	1	-	3	1	-	3	-	-	-	-	-	-	-	-	-
40	South Carolina	70	25	83	57	21	72	-	-	-	13	4	11	-	-	-
41	South Dakota	14	10	12	11	9	10	-	-	-	3	1	2	-	-	-
42	Tennessee	68	26	63	55	22	50	-	-	-	13	4	13	-	-	-
43	Texas	320	105	335	240	83	267	2	-	8	77	22	59	1	-	1
44	Utah	20	13	23	17	9	22	-	-	-	3	4	1	-	-	-
45	Vermont	6	2	5	4	2	3	-	-	-	1	-	1	1	-	1
46	Virginia	52	12	56	35	9	38	-	-	-	17	3	18	-	-	-
47	Washington	60	22	54	46	11	42	-	-	-	14	11	12	-	-	-
48	West Virginia	22	3	20	15	3	16	-	-	-	7	-	4	-	-	-
49	Wisconsin	108	33	128	91	28	116	-	-	-	14	3	11	3	2	1
50	Wyoming	4	2	4	2	1	1	-	-	-	2	1	3	-	-	-
51	District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	State Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
53	Total	3,572	1,381	3,578	2,762	1,098	2,940	12	2	20	764	262	596	34	19	22

Table 19. Rail-highway Accidents Involving Motor Vehicles, by States and Months, 1969

	State	January	February	March	April	May	June	July	August	September	October	November	December	Year
1	Alabama -----	11	6	6	10	5	6	5	7	4	11	12	12	95
2	Alaska -----	-	-	-	-	-	-	-	-	-	-	-	-	-
3	Arizona -----	-	2	3	3	1	5	1	1	2	3	1	-	22
4	Arkansas -----	8	5	7	2	7	4	7	6	2	1	8	2	59
5	California -----	13	25	21	24	21	18	13	21	15	23	16	13	223
6	Colorado -----	1	2	5	3	4	2	-	3	2	2	4	3	31
7	Connecticut -----	-	1	-	-	-	-	-	-	-	1	-	2	4
8	Delaware -----	-	-	-	1	1	1	-	1	-	-	1	-	6
9	Florida -----	18	8	12	10	14	10	8	11	14	12	10	21	148
10	Georgia -----	19	13	7	13	8	7	7	4	12	10	16	8	124
11	Hawaii -----	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Idaho -----	1	6	1	2	2	2	1	7	1	5	1	2	33
13	Illinois -----	26	17	13	14	18	15	9	17	20	20	26	21	219
14	Indiana -----	17	19	26	13	10	8	5	12	8	17	24	30	189
15	Iowa -----	13	7	8	8	3	7	6	6	7	11	10	15	101
16	Kansas -----	12	12	12	3	6	7	7	8	5	13	12	10	107
17	Kentucky -----	4	5	12	2	3	1	1	3	2	4	10	2	49
18	Louisiana -----	9	8	6	3	4	4	5	8	3	12	4	11	77
19	Maine -----	-	-	1	-	-	-	1	-	-	-	1	-	4
20	Maryland -----	3	1	1	2	-	2	-	3	2	3	2	1	20
21	Massachusetts -----	1	3	-	-	1	1	1	-	2	2	1	-	12
22	Michigan -----	21	11	20	11	10	10	9	11	18	16	16	24	183
23	Minnesota -----	14	15	7	8	13	10	6	3	9	11	12	8	116
24	Mississippi -----	9	8	9	3	4	8	9	7	4	9	13	11	92
25	Missouri -----	8	10	7	3	7	8	9	8	12	6	14	11	103
26	Montana -----	2	1	2	2	1	1	1	1	-	1	2	2	16
27	Nebraska -----	8	1	2	3	2	10	6	4	5	7	6	5	59
28	Nevada -----	1	-	1	1	-	-	1	-	-	2	-	-	6
29	New Hampshire -----	-	-	-	-	-	-	-	-	-	-	-	-	1
30	New Jersey -----	-	3	5	2	2	2	6	5	4	4	2	4	39
31	New Mexico -----	2	-	1	-	-	1	1	-	-	2	-	2	9
32	New York -----	8	6	10	6	3	6	1	5	6	6	7	11	75
33	North Carolina -----	10	13	5	8	9	6	5	6	5	4	13	11	95
34	North Dakota -----	6	1	1	-	-	3	2	3	-	-	2	2	20
35	Ohio -----	22	27	21	16	19	11	7	24	17	26	28	38	256
36	Oklahoma -----	9	10	8	6	6	5	6	1	5	7	15	10	88
37	Oregon -----	5	4	3	4	3	8	2	5	7	8	4	8	61
38	Pennsylvania -----	5	7	15	4	6	4	8	6	4	8	7	11	85
39	Rhode Island -----	-	-	-	-	-	-	-	-	-	-	-	-	1
40	South Carolina -----	6	5	5	5	10	4	5	2	6	5	5	12	70
41	South Dakota -----	-	4	1	1	-	1	1	1	2	2	-	1	14
42	Tennessee -----	8	6	3	5	5	1	1	9	5	11	5	9	68
43	Texas -----	32	23	29	29	26	21	29	22	17	26	31	35	320
44	Utah -----	3	1	2	2	1	-	1	1	2	3	2	2	20
45	Vermont -----	-	-	-	-	-	1	3	-	1	-	1	-	6
46	Virginia -----	9	6	3	1	3	4	3	2	6	5	4	6	52
47	Washington -----	7	4	8	1	6	2	3	5	5	6	6	7	60
48	West Virginia -----	3	4	3	1	1	1	1	5	-	1	2	-	22
49	Wisconsin -----	13	8	10	7	5	8	8	10	6	13	8	12	108
50	Wyoming -----	-	-	1	-	-	-	-	-	1	-	-	2	4
51	District of Columbia -----	-	-	-	-	-	-	-	-	-	-	-	-	-
52	State Unknown -----	-	-	-	-	-	-	-	-	-	-	-	-	-
53	Total -----	367	318	328	242	248	236	211	264	253	341	364	400	3,572

Table 20. Rail-Highway Accidents Involving Trains and Motor Vehicles,
Classified as to Kind of Crossing Protection, Class I Railroads, 1969

Railroad	Number	Lowered gates	Trainman	Watchman	Audible & visible signal	Audible Signal	Visible Signal	Signal or sign not of a type indicating ap- proach of train
Eastern district								
Akron, Canton & Youngstown -----	3	-	-	-	-	-	-	3
Ann Arbor -----	5	-	1	-	-	1	-	3
Baltimore & Ohio -----	90	1	2	-	5	1	26	55
Bangor & Aroostook -----	-	-	-	-	-	-	-	-
Bessemer & Lake Erie -----	2	-	-	-	1	-	1	-
Boston & Maine -----	4	-	-	-	1	1	1	-
Canadian Pacific Lines in Maine -----	-	-	-	-	-	-	-	1
Central R.R. Co. of New Jersey -----	11	-	1	-	2	-	-	-
Central Vermont -----	6	-	-	-	-	-	5	3
Chesapeake & Ohio -----	91	5	-	-	-	-	-	6
Chicago & Eastern Illinois -----	15	2	-	-	24	-	12	50
Chicago & Illinois Midland -----	4	-	-	-	5	-	1	7
Delaware & Hudson -----	7	-	-	-	-	-	3	1
Detroit & Toledo Shore Line -----	3	1	-	-	2	-	1	4
Detroit, Toledo & Ironton -----	10	1	-	-	1	-	-	1
Elgin, Joliet & Eastern -----	6	-	1	-	2	-	-	7
Erie Lackawanna -----	55	4	2	-	-	-	3	2
Grand Trunk Western -----	76	7	-	-	6	2	26	15
Illinois Terminal -----	5	-	-	-	32	-	4	33
Lehigh Valley -----	10	-	-	-	1	-	-	4
Long Island -----	14	4	-	-	6	-	1	3
Maine Central -----	4	-	-	-	2	-	6	2
Missouri-Illinois -----	1	-	-	-	-	-	1	3
Monon -----	3	-	-	-	1	-	-	-
					-	-	2	1

Table 20. Rail-Highway Accidents Involving Motor Vehicles, Classified as to Kind of Crossing Protection, Class I Railroads, 1969 - Continued

Railroad	Number	Lowered gates	Trainman	Watchman	Audible & visible signal	Audible Signal	Visible Signal	Signal or sign not of a type indicating approach of train
Eastern district - Continued								
Monongahela -----	-	-	-	-	-	-	-	-
Norfolk & Western -----	230	10	5	-	35	1	56	123
Penn Central -----	294	15	13	1	20	-	77	168
Pennsylvania-Reading Seashore Lines ---	13	-	-	-	1	1	2	9
Pittsburgh & Lake Erie -----	1	-	-	-	-	-	-	1
Reading -----	24	2	-	-	3	-	14	5
Richmond, Fredericksburg & Potomac ----	1	-	-	-	-	-	-	1
Western Maryland -----	7	-	-	-	3	-	-	4
Total -----	995	52	25	1	153	7	242	515
Southern district								
Alabama Great Southern -----	19	-	-	-	3	-	-	16
Central of Georgia -----	27	-	1	-	8	-	-	18
Cincinnati, New Orleans & Tex. Pac. ---	8	-	-	-	1	-	-	7
Clinchfield -----	4	-	-	-	1	-	-	3
Florida East Coast -----	5	3	-	-	2	-	-	-
Georgia -----	3	-	-	-	-	2	-	1
Georgia Southern & Florida -----	13	-	-	-	4	-	-	9
Gulf, Mobile & Ohio -----	37	-	1	-	3	-	1	32
Illinois Central -----	158	6	2	2	34	1	13	100
Louisville & Nashville -----	84	2	2	-	12	1	9	58

Table 20. Rail-Highway Accidents Involving Motor Vehicles, Classified as to Kind of Crossing Protection, Class I Railroads, 1969 - Continued

Railroad	Number	Lowered gates	Trainman	Watchman	Audible & visible signal	Audible Signal	Visible Signal	Signal or sign not of a type indicating approach of train
Southern district - continued								
Norfolk Southern -----	8	-	-	-	-	-	1	7
Piedmont & Northern 1/-----	-	-	-	-	-	-	-	-
Savannah & Atlanta -----	1	-	-	-	-	-	-	1
Seaboard Coast Line -----	266	7	5	-	41	-	32	181
Southern -----	159	-	2	-	36	-	-	121
Total -----	792	18	13	2	145	4	56	554
Western district								
Atchison, Topeka & Santa Fe -----	169	8	2	-	72	1	7	79
Chicago & North Western -----	120	7	4	-	51	-	4	54
Chicago, Burlington & Quincy -----	65	2	-	-	19	-	5	39
Chicago, Milwaukee, St. Paul & Pacific-----	93	3	-	-	20	-	11	59
Chicago, Rock Island & Pacific -----	107	4	1	-	35	1	2	64
Colorado & Southern -----	7	-	-	-	2	-	-	5
Denver & Rio Grande Western -----	8	-	-	-	4	-	1	3
Duluth, Missabe & Iron Range -----	1	-	-	-	-	-	1	-
Duluth, Winnipeg & Pacific -----	2	-	-	-	-	-	1	1

1/ Six months figures, merged with Seaboard Coast Line, 7-1-69.

Table 20. Rail-Highway Accidents Involving Motor Vehicles, Classified as to Kind of Crossing Protection, Class I Railroads, 1969 - Continued

Railroad	Number	Lowered gates	Trainman	Watchman	Audible & visible signal	Audible Signal	Visible Signal	Signal or sign not of a type indicating approach of train
Western district - continued								
Fort Worth & Denver -----	18	1	-	-	3	-	-	14
Great Northern -----	72	1	-	-	5	-	15	51
Kansas City Southern -----	19	-	3	-	6	-	-	10
Kansas, Oklahoma & Gulf -----	3	-	-	-	1	-	-	2
Lake Superior & Ishpeming -----	1	-	-	-	1	-	-	-
Louisiana & Arkansas -----	15	-	-	-	6	-	1	8
Missouri-Kansas-Texas -----	56	-	-	-	20	-	1	35
Missouri Pacific -----	133	1	2	-	30	2	13	85
Northern Pacific -----	72	1	1	1	14	-	3	52
Northwestern Pacific -----	5	-	1	-	3	-	1	-
St. Louis-San Francisco -----	120	1	1	-	16	1	9	92
St. Louis Southwestern -----	29	2	-	-	5	-	18	4
Soo Line -----	35	-	-	-	5	-	12	18
Southern Pacific -----	290	20	5	-	104	-	16	145
Spokane, Portland & Seattle -----	11	-	1	-	1	-	3	6
Texas & Pacific -----	54	2	-	-	9	-	12	31
Toledo, Peoria & Western -----	3	-	-	-	2	-	-	1
Union Pacific -----	117	2	1	1	25	-	7	81
Western Pacific -----	20	-	-	-	10	-	1	9
Total -----	1,645	55	22	2	469	5	144	948

Table 20. Rail-Highway Accidents Involving Motor Vehicles, Classified as to Kind of Crossing Protection, Class I Railroads, 1969 - Concluded

RECAPITULATION

Railroad	Number	Lowered gates	Trainman	Watchman	Audible & visible signal	Audible Signal	Visible Signal	Signal or sign not of a type indicating approach of train
All districts								
Eastern district -----	995	52	25	1	153	7	242	515
Southern district -----	792	18	13	2	145	4	56	554
Western district -----	1,645	55	22	2	469	5	144	948
Class I railroads (excluding Switching and Terminal Co.'s) -----	3,432	125	60	5	767	16	442	2,017
Class I Switching and Terminal Companies -----	29	5	2	1	12	1	3	5
Railroads other than Class I -----	111	6	6	-	23	1	16	59
Total, all classes -----	3,572	136	68	6	802	18	461	2,081