



FOR THE YEAR ENDED DECEMBER 31, 1973

**RAIL-HIGHWAY
GRADE-CROSSING
ACCIDENTS**

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

**DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION**

PREFACE

This is the thirty-ninth 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.

While the number of grade crossing accidents in 1973 was the same as in 1972, there was a 2 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, 1, and 20A 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.

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Administrator

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SUMMARY

RAIL-HIGHWAY GRADE CROSSING ACCIDENTS OF ALL KINDS

In 1973, there were 3,379 crossing accidents involving pedestrians, automobiles, motortrucks, buses, motorcycles, and other vehicles or machines. The above accidents resulted in 1,185 deaths and 3,283 injuries.

The following three tables show data for the ten-year period, 1964 - 1973.

TABLE A SUMMARY OF ALL TYPES OF RAIL-HIGHWAY CROSSING ACCIDENTS FOR 10-YEAR PERIOD 1964 THRU 1973

Year	Number of Accidents	Per-cent	Total Killed	Total Injured	Casualties	Per Accident
1964	3,755	10.1	1,543	3,783	5,326	1.41
1965	3,820	10.3	1,534	3,801	5,335	1.39
1966	4,097	11.1	1,780	4,043	5,823	1.42
1967	3,932	10.6	1,632	3,812	5,444	1.38
1968	3,816	10.3	1,546	3,774	5,320	1.39
1969	3,774	10.2	1,490	3,669	5,159	1.36
1970	3,559	9.6	1,440	3,336	4,776	1.34
1971	3,392	9.1	1,356	3,332	4,688	1.38
1972	3,379	9.1	1,260	3,285	4,545	1.34
1973	3,379	9.1	1,185	3,283	4,468	1.32
TOTAL	36,903	100.0	14,766	36,118	50,884	1.37
Yearly Mean	3690.30		1476.60	3611.80	5088.40	

Table B shows that in 1973, accidents and casualties were at the minimum for the ten-year period. Total casualties declined 2% from 1972.

TABLE B SUMMARY OF ALL TYPES OF RAIL-HIGHWAY CROSSING ACCIDENTS FOR 10-YEAR PERIOD 1964 THRU 1973

Year	Accidents		Fatalities		Injuries	
	No.	Pct.	No.	Pct.	No.	Pct.
1964	3,755	10.1	1,543	10.4	3,783	10.4
1965	3,820	10.3	1,534	10.3	3,801	10.5
1966	4,097	11.1	1,780	12.0	4,043	11.1
1967	3,932	10.6	1,632	11.0	3,812	10.5
1968	3,816	10.3	1,546	10.4	3,774	10.4
1969	3,774	10.2	1,490	10.0	3,669	10.1
1970	3,559	9.6	1,440	9.7	3,336	9.2
1971	3,392	9.1	1,356	9.1	3,332	9.2
1972	3,379	9.1	1,260	8.5	3,285	9.0
1973	3,379	9.1	1,185	8.0	3,283	9.0
TOTAL	36,903	100.0	14,766	100.0	36,118	100.0
Mean	3690.30		1476.60		3611.80	
S.D.	251.14		175.34		276.87	
Min.	3,379		1,185		3,283	
Max.	4,097		1,780		4,043	

GRADE CROSSING ACCIDENTS INVOLVING MOTOR VEHICLES

Of the 3,379 crossing accidents of all kinds in 1973, 3,174 involved collisions between railroad movements and motor vehicles, and resulted in 1,077 deaths and 3,192 injuries. In 2,209 collisions, or 69.5 percent, trains struck motor vehicles, resulting in 839, or 77.9 percent, of the deaths and in 2,136, or 66.9 percent of the injuries. In the other 965 collisions, or 30.5 percent, motor vehicles struck the sides of train movements, resulting in 238, or 22.1 percent, of the deaths and in 1,056, or 33.1 percent of the injuries.

The number of crossing accidents in 1973 involving collisions with motor vehicles shows a decrease from 1972. In comparison with last year, there was a decrease of 113 in the number of deaths; a decrease of 9 in the number of injuries; and a decrease of 48 in the number of accidents.

TABLE C NUMBER OF RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES FOR 10-YEAR PERIOD 1964 THRU 1973

Year	Number of Accidents	Motor Vehicles Registered (000)	Accidents per Million Vehicles
1964	3,539	72,935	48.47
1965	3,602	76,633	46.77
1966	3,862	80,084	48.27
1967	3,733	82,411	45.52
1968	3,603	85,799	41.89
1969	3,572	88,815	40.13
1970	3,377	92,124	36.70
1971	3,224	96,097	33.58
1972	3,222	100,595	31.90
1973	3,174	129,511	24.60

TYPES OF CROSSING PROTECTION PROVIDED

Of the 3,174 collisions, 1,329, or 41.87 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 1,845, or 58.13 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 209,780 rail-highway crossings at grade. Of these crossings, 48,355 or 23.04 percent, were specially protected; 161,445, or 76.96 percent were not specially protected.

TIMES AND WEATHER CONDITIONS INVOLVED IN MOTOR VEHICLE COLLISIONS

Of the 3,174, crossing collisions, 2,044 or 64.40 percent, occurred in daylight, and 1,130 or 35.60 percent, took place at night. There were 2,151 collisions, or 67.77 percent, in clear weather, and 1,023 or 32.23 percent under cloudy or inclement weather conditions.

TYPES OF MOTOR VEHICLES INVOLVED IN CROSSING ACCIDENTS

Of the 3,174 collisions between trains and motor vehicles, automobiles were involved in 2,281, or 71.86 percent; buses in 14, or 0.44 percent; motortrucks in 814, or 25.65 percent; and motorcycles in 65, or 2.05 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 person 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. (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. Crossing 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 went 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
1973 - 1972

Trains striking or being struck by:	Total accidents.....		Total Killed.....		Total Injured.....							
	1973	1972	1973	1972	1973	1972						
	#	Pct.	#	Pct.	#	Pct.						
Pedestrians	106	3.1	79	2.3	77	6.4	52	4.1	32	0.9	28	0.8
Automobiles	2,281	67.5	2,367	70.0	778	65.6	941	74.6	2,422	73.7	2,429	73.9
Buses	14	0.4	10	0.2	13	1.0	3	0.2	48	1.4	70	2.1
Trucks	814	24.0	804	23.7	244	20.5	226	17.9	688	20.9	678	20.6
Motorcycles	65	1.9	41	1.2	42	3.5	20	1.5	34	1.0	24	0.7
Other vehicles	58	1.7	39	1.1	27	2.2	15	1.1	29	0.8	24	0.7
Over/Under*	6	0.1	11	0.3	0	0.0	3	0.2	6	0.1	8	0.2
Miscellaneous	35	1.0	28	0.8	4	0.3	0	0.0	24	0.7	24	0.7
Total	3,379	100.0	3,379	100.0	1,185	100.0	1,260	100.0	3,283	100.0	3,285	100.0

* NOTE: Pedestrians passing over, under or otherwise thru train

TABLE 2-A NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
SHOWING NUMBER OF ACCIDENTS, 1973 - 1971

	1973		1972		1971	
	#	Pct.	#	Pct.	#	Pct.
Motor vehicle struck by train	2,209	69.5	2,263	70.2	2,266	70.3
Motor vehicle ran into train	965	30.4	959	29.7	955	29.6
TOTAL.....	3,174	100.0	3,222	100.0	3,221	100.0

TABLE 2-B NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
SHOWING NUMBER OF FATALITIES, 1973 - 1971

	1973		1972		1971	
	#	Pct.	#	Pct.	#	Pct.
Motor vehicle struck by train	839	77.9	937	78.7	980	77.3
Motor vehicle ran into train	238	22.0	253	21.2	287	22.6
TOTAL.....	1,077	100.0	1,190	100.0	1,267	100.0

TABLE 2-C NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
SHOWING NUMBER OF INJURIES, 1973 - 1971

	1973		1972		1971	
	#	Pct.	#	Pct.	#	Pct.
Motor vehicle struck by train	2,136	66.9	2,160	67.4	2,245	69.0
Motor vehicle ran into train	1,056	33.0	1,041	32.5	1,008	31.0
TOTAL.....	3,192	100.0	3,201	100.0	3,253	100.0

TABLE 2-D NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
WHERE MOTOR VEHICLE WAS STRUCK BY TRAIN, 1973

Type of Vehicle	Daylight.....			Dark.....		
	Accidents	Killed	Injured	Accidents	Killed	Injured
Passenger automobiles	1,076	450	1,064	506	187	540
Motor buses	11	11	43	3	2	5
Motor trucks	487	153	376	116	29	105
Motorcycles	9	7	2	1	0	1
Total.....	1,583	621	1,485	626	218	651

TABLE 2-E NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
WHERE TRAIN WAS RUN INTO BY MOTOR VEHICLE, 1973

Type of Vehicle	Daylight.....			Dark.....		
	Accidents	Killed	Injured	Accidents	Killed	Injured
Passenger automobiles	284	52	329	415	89	489
Motor buses	0	0	0	0	0	0
Motor trucks	139	44	144	72	18	63
Motorcycles	38	22	21	17	13	10
Total.....	461	118	494	504	120	562

TABLE 3 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
THAT RAN INTO TRAINS, 1973 - 1971

Part of Train Struck	1973		1972		1971		Number in 1973	
	#	Pct.	#	Pct.	#	Pct.	Daylight	Dark
MPU Pulling or running light	615	63.7	606	63.1	610	63.8	383	232
Lead car shoved	33	3.4	36	3.7	45	4.7	12	21
Other part near head end of train	5	0.5	4	0.4	1	0.1	2	3
First quarter of train	132	13.6	136	14.1	107	11.2	44	88
Second quarter of train	58	6.0	57	5.9	51	5.3	4	54
Third quarter of train	37	3.8	38	3.9	49	5.1	4	33
Fourth quarter of train	53	5.4	51	5.3	66	6.9	8	45
Last unit of train	21	2.1	24	2.5	21	2.1	4	17
Part of train not reported	11	1.1	7	0.7	5	0.5	0	11
Total	965	100.0	959	100.0	955	100.0	461	504

TABLE 4 NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS
INVOLVING MOTOR VEHICLES AND PART OF 24-HOUR PERIOD, 1973 - 1971

	1973		1972		1971	1973.....			
	#	Pct.	#	Pct.	#	Pct.	Struck by train Killed	Injured	Ran into train Killed	Injured
Daylight	2,044	64.3	2,027	62.9	2,017	62.6	621	1,485	118	494
Dark	1,130	35.6	1,195	37.0	1,204	37.3	218	651	120	562
Total	3,174	100.0	3,222	100.0	3,221	100.0	839	2,136	238	1,056

TABLE 5 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO HOUR, 1973 - 1971

Hour	Total Accidents			Struck by Train			Ran into Train		
	1973	1972	1971	1973	1972	1971	1973	1972	1971
Midnight to 12:59 AM	99	113	113	46	51	53	53	62	60
1 to 1:59 AM	100	103	105	37	37	48	63	66	57
2 to 2:59 AM	87	75	90	35	31	35	52	44	55
3 to 3:59 AM	50	50	60	20	21	30	30	29	30
4 to 4:59 AM	40	53	39	22	24	13	18	29	26
5 to 5:59 AM	50	56	44	30	38	24	20	18	20
6 to 6:59 AM	108	103	106	87	71	70	21	32	36
7 to 7:59 AM	160	148	161	130	116	120	30	32	41
8 to 8:59 AM	159	147	148	123	125	117	36	22	31
9 to 9:59 AM	164	171	131	128	134	108	36	37	23
10 to 10:59 AM	158	159	167	128	111	132	30	48	35
11 to 11:59 AM	162	169	173	126	138	144	36	31	29
12 Noon TO 12:59 PM	169	140	183	128	111	145	41	29	38
1 to 1:59 PM	167	184	173	123	138	135	44	46	38
2 to 2:59 PM	180	178	152	132	142	118	48	36	34
3 to 3:59 PM	186	193	183	154	150	137	32	43	46
4 to 4:59 PM	203	207	200	166	157	160	37	50	40
5 to 5:59 PM	175	178	188	121	142	148	54	36	40
6 to 6:59 PM	152	175	165	110	127	122	42	48	43
7 to 7:59 PM	145	150	177	100	104	116	45	46	61
8 to 8:59 PM	117	129	109	73	84	77	44	45	32
9 to 9:59 PM	110	105	115	65	71	78	45	34	37
10 to 10:59 PM	129	132	119	71	80	64	58	52	55
11 to 11:59 PM	104	104	120	54	60	72	50	44	48
TOTAL.....	3,174	3,222	3,221	2,209	2,263	2,266	965	959	955

TABLE 6 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY DAY OF WEEK, 1973 - 1971

	Total Accidents			Struck by Train			Ran into Train		
	1973	1972	1971	1973	1972	1971	1973	1972	1971
Sunday	293	318	329	201	220	230	92	98	99
Monday	463	408	461	326	286	334	137	122	127
Tuesday	447	489	458	321	344	333	126	145	125
Wednesday	476	431	447	323	302	306	153	129	141
Thursday	440	433	485	315	315	334	125	118	151
Friday	508	583	534	354	410	389	154	173	145
Saturday	547	560	507	369	386	340	178	174	167
Total	3,174	3,222	3,221	2,209	2,263	2,266	965	959	955

TABLE 7 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY MONTH, 1973 - 1971

Month	Total Accidents			Struck by Train			Ran into Train		
	1973	1972	1971	1973	1972	1971	1973	1972	1971
January	328	305	341	231	222	251	97	83	90
February	283	313	290	191	203	223	92	110	67
March	235	246	294	163	183	225	72	63	69
April	250	242	263	174	167	199	76	75	64
May	250	219	223	172	157	134	78	62	89
June	208	258	222	143	190	149	65	68	73
July	217	204	214	139	140	142	78	64	72
August	246	219	200	172	155	137	74	64	63
September	244	264	242	167	171	155	77	93	87
October	299	305	292	210	226	198	89	79	94
November	293	313	309	209	213	222	84	100	87
December	321	334	331	238	236	231	83	98	100
Total	3,174	3,222	3,221	2,209	2,263	2,266	965	959	955

TABLE 8 TYPES OF MOTOR VEHICLES INVOLVED IN ACCIDENTS
AT RAIL-HIGHWAY CROSSINGS, 1973 - 1971

Type of Vehicle	Number of Accidents			Vehicles Registered (000)	Accidents per million Vehicles	Number occurring in	
	1973	1972	1971			Daylight	Dark
Passenger automobiles	2,281	2,367	2,439	101,579	22.3	1,360	921
Motor buses	14	10	7	425	35.0	11	3
Motor trucks	814	804	732	23,153	35.2	626	138
Motorcycles	65	41	43	4,354	15.1	47	18
Total.....	3,174	3,222	3,221	129,511	24.4	2,044	1,130

TABLE 9 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY KIND OF TRAIN INVOLVED, 1973 - 1971

Kind of Train	1973			1972			1971		
	# Accidents	Train miles (000)	# per mill. miles	# Accidents	Train miles (000)	# per mill. miles	# Accidents	Train miles (000)	# per mill. miles
Freight	2,653	476,379	5.57	2,682	451,456	5.94	2,590	429,521	6.03
Passenger	145	61,516	2.37	153	60,993	2.55	227	52,590	4.36
Work	53	4,967	13.25	61	5,119	12.20	46	5,425	9.20
Yard switching	323	201,606	1.60	326	234,228	1.39	358	229,519	1.56
Total	3,174	744,468	4.27	3,222	751,796	4.29	3,221	717,055	4.50

TABLE 10 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY TYPE OF CROSSING PROTECTION, 1973

Crossing Protection	Killed	Injured	Accidents	Number of Crossings	Accidents per 100 Crossings	Occurring		Struck by train		Ran into train	
						Daylight	Dark	Daylight	Dark	Daylight	Dark
Lowered gates	41	141	132	11,444	1.15	52	80	43	50	9	30
Trainman	1	42	35	0	0	8	27	5	10	3	17
Watchman	0	3	3	389	1.00	3	0	3	0	0	0
Audible + Visual	276	700	714	30,903	2.31	451	263	333	164	118	99
Audible signal	6	10	13	1,204	1.08	8	5	7	3	1	2
Visual signal	125	437	432	4,395	10.04	281	151	204	85	77	66
Total active	449	1,333	1,329	48,335	2.76	803	526	595	312	208	214
Passive signals	628	1,859	1,845	161,445	1.14	1,241	604	988	314	253	290
Grand total	1,077	3,192	3,174	209,780	1.51	2,044	1,130	1,583	626	461	504

TABLE 11 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO OPERATION OF CROSSING PROTECTION, 1973 - 1971

Crossing protection	Number of Accidents			Occurring		Struck by train		Ran into train	
	1973	1972	1971	Daylight	Dark	Daylight	Dark	Daylight	Dark
Automatic, both sides	1,266	1,188	1,278	773	493	573	300	200	193
Automatic, side of approach	14	16	27	9	5	6	2	3	3
Automatic, opposite side	4	5	11	4	0	4	0	0	0
Manual, both sides	12	16	6	2	10	2	2	0	8
Manual, side of approach	24	32	31	7	17	4	8	3	9
Manual, opposite side	2	3	0	2	0	2	0	0	0
Other, both sides	1,588	1,664	1,595	1,054	534	832	271	222	263
Other, side of approach	146	151	148	104	42	83	28	21	14
Other, opposite side	106	132	116	80	26	69	14	11	12
Not reported	12	15	9	9	3	8	1	1	2
Total	3,174	3,222	3,221	2,044	1,130	1,583	626	461	504

TABLE 12 CROSSING ACCIDENTS AFTER DARK INVOLVING MOTOR VEHICLES
ACCORDING TO ILLUMINATION OF CROSSING, 1973 - 1971

Crossing Illumination	Number of Accidents			Struck by Train			Ran into Train			1973 Persons	
	1973	1972	1971	1973	1972	1971	1973	1972	1971	Killed	Injured
Lighted	530	534	572	325	317	355	205	217	217	141	609
Not-lighted	600	661	632	301	373	343	299	288	289	197	604
Total	1,130	1,195	1,204	626	690	698	504	505	506	338	1,213

TABLE 13 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO SPEED AND TYPE OF TRAIN INVOLVED, 1973

Train Speed (MPH)	Total	Struck by train		Ran into train		Freight		Passenger		Yard (Switching) and other	
		Daylight	Dark	Daylight	Dark	#	Pct.	#	Pct.	#	Pct.
0 - 9	522	95	107	69	251	303	11.4	6	4.1	213	56.6
10 - 19	522	193	160	76	93	427	16.0	7	4.8	88	23.4
20 - 29	665	333	143	118	71	605	22.8	17	11.7	43	11.4
30 - 39	590	371	91	87	41	550	20.7	18	12.4	22	5.8
40 - 49	485	318	61	75	31	459	17.3	20	13.7	6	1.5
50 - 59	266	191	45	20	10	242	9.1	21	14.4	3	0.7
60 - 69	75	51	11	11	2	60	2.2	15	10.3	0	0.0
70 - 79	46	29	8	5	4	6	0.2	39	26.8	1	0.2
80 - 89	2	2	0	0	0	0	0.0	2	1.3	0	0.0
90 and over	1	0	0	0	1	1	0.0	0	0.0	0	0.0
Total	3,174	1,583	626	461	504	2,653	100.0	145	100.0	376	100.0

TABLE 14 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO WEATHER CONDITIONS, 1973

Weather	Total Accidents		Struck by Train		Ran into Train	
	#	Pct.	Daylight	Dark	Daylight	Dark
Clear	2,151	67.7	1,100	420	305	326
Cloudy	639	20.1	340	117	90	92
Rain	244	7.6	100	55	44	45
Snow, sleet or hail	74	2.3	32	17	14	11
Fog	65	2.0	11	16	8	30
Dust	0	0.0	0	0	0	0
Smoke	1	0.0	0	1	0	0
Not reported	0	0.0	0	0	0	0
Total	3,174	100.0	1,583	626	461	504

TABLE 15 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO NUMBER OF CARS IN TRAIN AND KIND OF TRAIN, 1973

Number of cars in train	Freight		Passenger		Yard (Switching) and others		Total		Number occurring in	
	#	Pct.	#	Pct.	#	Pct.	#	Pct.	Daylight	Dark
None	91	3.4	0	0.0	91	24.2	182	5.7	104	78
1 - 9	473	17.8	81	55.8	168	44.6	722	22.7	486	236
10 - 19	269	10.1	51	35.1	62	16.4	382	12.0	242	140
20 - 29	213	8.0	4	2.7	20	5.3	237	7.4	153	84
30 - 39	194	7.3	6	4.1	9	2.3	209	6.5	138	71
40 - 49	182	6.8	2	1.3	13	3.4	197	6.2	123	74
50 - 59	179	6.7	0	0.0	3	0.7	182	5.7	109	73
60 - 69	182	6.8	1	0.6	2	0.5	185	5.8	114	71
70 - 79	179	6.7	0	0.0	2	0.5	181	5.7	122	59
80 - 89	190	7.1	0	0.0	2	0.5	192	6.0	127	65
90 - 99	148	5.5	0	0.0	1	0.2	149	4.6	106	43
100 - 109	118	4.4	0	0.0	0	0.0	118	3.7	75	43
110 - 119	79	2.9	0	0.0	0	0.0	79	2.4	49	30
120 - 129	62	2.3	0	0.0	0	0.0	62	1.9	35	27
130 - 139	34	1.2	0	0.0	1	0.2	35	1.1	19	16
140 - 149	26	0.9	0	0.0	0	0.0	26	0.8	21	5
150 and over	24	0.9	0	0.0	0	0.0	24	0.7	13	11
Not reported or unknown	10	0.3	0	0.0	2	0.5	12	0.3	8	4
Total	2,653	83.5	145	4.5	376	11.8	3,174	100.0	2,044	1,130

TABLE 16 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
ACCORDING TO SPEED OF MOTOR VEHICLE, 1973

Speed of Vehicle	Total Accidents		Struck by Train						Ran into Train							
	#	Pct.	Kld.	Inj.	#	Kld.	Inj.	#	Kld.	Inj.	#	Kld.	Inj.	#	Kld.	Inj.
Standing	365	11.4	105	341	279	79	270	82	26	68	1	0	0	3	0	
1 - 9	352	11.0	121	344	232	90	226	75	24	74	23	3	21	22	4	2
10 - 19	539	16.9	169	547	325	133	302	124	30	139	49	3	61	41	3	4
20 - 29	546	17.2	164	577	263	92	267	131	48	145	79	14	80	73	10	8
30 - 39	389	12.2	122	404	165	69	147	71	27	83	68	15	66	85	11	10
40 - 49	234	7.3	101	231	64	39	49	36	20	44	75	26	76	59	16	6
50 - 59	145	4.5	79	156	33	22	18	17	11	12	56	25	84	39	21	4
60 and over	92	2.8	49	83	21	17	18	6	4	3	25	11	24	40	17	3
High, not stated	14	0.4	10	11	2	1	3	2	4	0	2	1	1	8	4	
Not reported	498	15.6	157	498	199	79	185	82	24	83	83	20	81	134	34	14
Total	3,174	100.0	1,077	3,192	1,583	621	1,485	626	218	651	461	118	494	504	120	56

TABLE 17-A RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY STATE, 1973 - 1972

State	1973						1972					
	Accidents		Killed		Injured		Accidents		Killed		Injured	
	#	Pct.	#	Pct.	#	Pct.	#	Pct.	#	Pct.	#	Pct.
Alabama	101	3.1	34	3.1	110	3.4	104	3.2	33	2.7	99	3.0
Alaska	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Arizona	21	0.6	3	0.2	33	1.0	13	0.4	3	0.2	11	0.3
Arkansas	66	2.0	20	1.8	69	2.1	81	2.5	39	3.2	78	2.4
California	157	4.9	57	5.2	144	4.5	154	4.7	58	4.8	126	3.9
Colorado	40	1.2	22	2.0	30	0.9	26	0.8	15	1.2	22	0.6
Connecticut	3	0.0	0	0.0	5	0.1	8	0.2	5	0.4	8	0.2
Delaware	0	0.0	0	0.0	0	0.0	5	0.1	1	0.0	5	0.1
District of Columbia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Florida	184	5.7	75	6.9	183	5.7	151	4.6	65	5.4	136	4.2
Georgia	165	5.1	49	4.5	193	6.0	134	4.1	45	3.7	143	4.4
Hawaii	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Idaho	37	1.1	11	1.0	33	1.0	26	0.8	18	1.5	30	0.9
Illinois	216	6.8	87	8.0	203	6.3	232	7.2	85	7.1	231	7.2
Indiana	171	5.3	61	5.6	166	5.2	188	5.8	72	6.0	179	5.5
Iowa	76	2.3	23	2.1	72	2.2	84	2.6	48	4.0	77	2.4
Kansas	83	2.6	24	2.2	83	2.6	76	2.3	36	3.0	67	2.0
Kentucky	52	1.6	20	1.8	42	1.3	37	1.1	12	1.0	31	0.9
Louisiana	66	2.0	17	1.5	81	2.5	80	2.4	30	2.5	73	2.2
Maine	7	0.2	1	0.0	11	0.3	2	0.0	0	0.0	6	0.1
Maryland	21	0.6	1	0.0	19	0.5	19	0.5	6	0.5	15	0.4
Massachusetts	11	0.3	5	0.4	9	0.2	8	0.2	5	0.4	12	0.3
Michigan	131	4.1	48	4.4	128	4.0	132	4.0	38	3.1	160	4.9
Minnesota	75	2.3	26	2.4	74	2.3	106	3.2	34	2.8	104	3.2
Mississippi	83	2.6	21	1.9	93	2.9	68	2.1	19	1.5	69	2.1
Missouri	73	2.2	27	2.5	72	2.2	100	3.1	41	3.4	92	2.8
Montana	17	0.5	4	0.3	15	0.4	8	0.2	2	0.1	9	0.2
Nebraska	58	1.8	31	2.8	47	1.4	63	1.9	34	2.8	44	1.3
Nevada	3	0.0	2	0.1	13	0.4	4	0.1	1	0.0	4	0.1
New Hampshire	2	0.0	0	0.0	2	0.0	1	0.0	0	0.0	2	0.0
New Jersey	28	0.8	3	0.2	24	0.7	26	0.8	7	0.5	23	0.7
New Mexico	10	0.3	4	0.3	8	0.2	9	0.2	9	0.7	3	0.0
New York	37	1.1	13	1.2	36	1.1	49	1.5	14	1.1	93	2.9
North Carolina	95	2.9	49	4.5	113	3.5	92	2.8	36	3.0	104	3.2
North Dakota	20	0.6	5	0.4	17	0.5	25	0.7	15	1.2	19	0.5
Ohio	200	6.3	58	5.3	184	5.7	215	6.6	71	5.9	228	7.1
Oklahoma	75	2.3	20	1.8	75	2.3	89	2.7	34	2.8	82	2.5
Oregon	44	1.3	9	0.8	45	1.4	52	1.6	7	0.5	53	1.6
Pennsylvania	72	2.2	17	1.5	69	2.1	88	2.7	17	1.4	78	2.4
Puerto Rico	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rhode Island	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
South Carolina	64	2.0	19	1.7	79	2.4	73	2.2	30	2.5	75	2.3
South Dakota	10	0.3	4	0.3	15	0.4	14	0.4	6	0.5	17	0.5
Tennessee	84	2.6	38	3.5	72	2.2	76	2.3	27	2.2	83	2.5
Texas	292	9.1	93	8.6	302	9.4	302	9.3	101	8.4	311	9.7
Utah	21	0.6	10	0.9	14	0.4	12	0.3	6	0.5	11	0.3
Vermont	4	0.1	0	0.0	5	0.1	4	0.1	2	0.1	4	0.1
Virginia	49	1.5	12	1.1	62	1.9	39	1.2	15	1.2	40	1.2
Washington	51	1.6	14	1.2	49	1.5	43	1.3	12	1.0	47	1.4
West Virginia	19	0.5	6	0.5	15	0.4	18	0.5	3	0.2	19	0.5
Wisconsin	74	2.3	28	2.5	74	2.3	81	2.5	31	2.6	75	2.3
Wyoming	6	0.1	6	0.5	4	0.1	5	0.1	2	0.1	3	0.0
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total.....	3,174	100.0	1,077	100.0	3,192	100.0	3,222	100.0	1,190	100.0	3,201	100.0

TABLE 17-B NATURE OF ACCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES
BY STATE, 1973

State	Daylight			Dark		
	Accidents	Killed	Injured	Accidents	Killed	Injured
Alabama	72	27	78	29	7	32
Alaska	0	0	0	0	0	0
Arizona	14	1	19	7	2	14
Arkansas	48	17	47	18	3	22
California	92	30	79	65	27	65
Colorado	27	17	16	13	5	14
Connecticut	2	0	3	1	0	2
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	125	48	126	59	27	57
Georgia	118	35	148	47	14	45
Hawaii	0	0	0	0	0	0
Idaho	28	8	24	9	3	9
Illinois	138	55	116	78	32	87
Indiana	101	42	99	70	19	67
Iowa	38	16	28	38	7	44
Kansas	59	19	51	24	5	32
Kentucky	44	14	34	8	6	8
Louisiana	44	14	55	22	3	26
Maine	5	0	8	2	1	3
Maryland	11	0	11	10	1	8
Massachusetts	6	4	4	5	1	5
Michigan	75	31	65	56	17	63
Minnesota	35	9	31	40	17	43
Mississippi	55	13	62	28	8	31
Missouri	52	25	42	21	2	30
Montana	9	2	8	8	2	7
Nebraska	39	23	27	19	8	20
Nevada	1	0	7	2	2	6
New Hampshire	2	0	2	0	0	0
New Jersey	16	1	12	12	2	12
New Mexico	6	4	4	4	0	4
New York	24	11	23	13	2	13
North Carolina	65	40	77	30	9	36
North Dakota	12	5	7	8	0	10
Ohio	115	35	107	85	23	77
Oklahoma	45	13	43	30	7	32
Oregon	33	6	36	11	3	9
Pennsylvania	47	13	41	25	4	28
Puerto Rico	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0
South Carolina	42	11	54	22	8	25
South Dakota	6	1	12	4	3	3
Tennessee	62	32	50	22	6	22
Texas	185	68	188	107	25	114
Utah	15	7	10	6	3	4
Vermont	1	0	1	3	0	4
Virginia	36	10	42	13	2	20
Washington	34	10	33	17	4	16
West Virginia	12	6	7	7	0	8
Wisconsin	43	12	40	31	16	34
Wyoming	5	4	2	1	2	2
Unknown	0	0	0	0	0	0
Total.....	2,044	739	1,979	1,130	338	1,213

TABLE 18 RAIL-HIGHWAY ACCIDENTS BY STATE AND TYPE
OF MOTOR VEHICLE INVOLVED, 1973

StateTotal.....		Automobiles.....		Buses.....		Motortrucks.....		Motorcycles.....		
	#	Killed	Injured	#	Killed	Injured	#	Killed	Injured	#	Killed	Injured	#	Killed	Injured
Alabama	101	34	110	83	31	93	0	0	0	17	2	17	1	1	0
Alaska	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	21	3	33	16	2	24	0	0	0	5	1	9	0	0	0
Arkansas	66	20	69	41	11	42	0	0	0	24	9	26	1	0	1
California	157	57	144	110	41	108	2	1	4	42	14	30	3	1	2
Colorado	40	22	30	20	12	20	0	0	0	19	9	10	1	1	0
Connecticut	3	0	5	3	0	5	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	184	75	183	132	53	138	0	0	0	50	20	45	2	2	0
Georgia	165	49	193	117	33	132	1	0	4	41	12	55	6	4	2
Hawaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	37	11	33	22	7	26	1	0	1	14	4	6	0	0	0
Illinois	216	87	203	162	65	155	0	0	0	49	17	47	5	5	1
Indiana	171	61	166	121	44	132	0	0	0	44	15	30	6	2	4
Iowa	76	23	72	53	17	53	0	0	0	21	6	16	2	0	3
Kansas	83	24	83	53	13	58	1	0	1	26	10	21	3	1	3
Kentucky	52	20	42	35	16	35	1	0	1	16	4	6	0	0	0
Louisiana	66	17	81	41	8	49	0	0	0	22	7	29	3	2	3
Maine	7	1	11	4	0	6	0	0	0	2	1	4	1	0	1
Maryland	21	1	19	17	1	15	0	0	0	4	0	4	0	0	0
Massachusetts	11	5	9	9	4	8	0	0	0	2	1	1	0	0	0
Michigan	131	48	128	99	33	109	1	2	0	25	10	16	6	3	3
Minnesota	75	26	74	60	25	62	0	0	0	15	1	12	0	0	0
Mississippi	83	21	93	67	17	81	0	0	0	16	4	12	0	0	0
Missouri	73	27	72	62	20	60	2	1	8	9	6	4	0	0	0
Montana	17	4	15	11	4	9	0	0	0	6	0	6	0	0	0
Nebraska	58	31	47	39	22	35	0	0	0	18	9	11	1	0	1
Nevada	3	2	13	2	2	6	0	0	0	1	0	7	0	0	0
New Hampshire	2	0	2	2	0	2	0	0	0	0	0	0	0	0	0
New Jersey	28	3	24	20	2	20	1	0	1	7	1	3	0	0	0
New Mexico	10	4	8	4	3	2	0	0	0	6	1	6	0	0	0
New York	37	13	36	25	11	24	0	0	0	12	2	12	0	0	0
North Carolina	95	49	113	75	43	91	1	0	6	17	6	13	2	0	3
North Dakota	20	5	17	13	3	14	0	0	0	6	1	3	1	1	0
Ohio	200	58	184	150	42	143	1	1	0	42	9	38	7	6	3
Oklahoma	75	20	75	55	14	61	0	0	0	18	5	13	2	1	1
Oregon	44	9	45	22	1	28	0	0	0	19	6	15	3	2	2
Pennsylvania	72	17	69	54	12	57	0	0	0	17	4	12	1	1	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Carolina	64	19	79	54	15	73	0	0	0	9	3	6	1	1	0
South Dakota	10	4	15	5	3	4	1	1	7	3	0	3	1	0	1
Tennessee	84	38	72	68	30	63	0	0	0	16	8	9	0	0	0
Texas	292	93	302	201	60	208	1	7	15	88	23	79	2	3	0
Utah	21	10	14	9	7	4	0	0	0	12	3	10	0	0	0
Vermont	4	0	5	2	0	4	0	0	0	2	0	1	0	0	0
Virginia	49	12	62	39	10	54	0	0	0	10	2	8	0	0	0
Washington	51	14	49	33	9	37	0	0	0	16	3	12	2	2	0
West Virginia	19	6	15	12	5	11	0	0	0	7	1	4	0	0	0
Wisconsin	74	28	74	55	22	58	0	0	0	18	4	16	1	2	0
Wyoming	6	6	4	4	5	3	0	0	0	1	0	1	1	1	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.....	3,174	1,077	3,192	2,281	778	2,422	14	13	48	814	244	688	65	42	34

TABLE 19 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY STATE AND MONTH, 1973

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	5	8	8	8	14	7	5	5	7	11	9	14	101
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	2	2	2	3	1	1	1	-	2	2	5	-	21
Arkansas	8	7	5	6	7	6	5	3	8	1	6	4	66
California	14	9	12	16	10	12	13	16	12	14	19	10	157
Colorado	3	5	3	-	5	4	1	3	8	3	2	3	40
Connecticut	-	-	-	-	1	-	-	-	-	1	1	-	3
Delaware	-	-	-	-	-	-	-	-	-	-	-	-	-
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	20	18	20	12	16	11	17	17	13	12	12	16	184
Georgia	18	17	15	13	7	12	14	10	13	13	17	16	165
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	4	3	4	1	1	-	1	2	5	6	7	3	37
Illinois	20	19	11	12	12	13	14	20	16	29	20	30	216
Indiana	12	22	9	15	18	7	13	11	12	22	15	15	171
Iowa	6	4	4	6	11	7	3	10	5	12	3	5	76
Kansas	9	9	2	6	6	6	8	9	6	7	10	5	83
Kentucky	8	3	1	6	3	5	3	4	3	8	4	4	52
Louisiana	9	4	5	7	5	4	4	3	5	4	6	10	66
Maine	3	-	-	1	1	1	-	-	-	1	-	-	7
Maryland	1	2	2	2	3	-	1	2	1	1	4	2	21
Massachusetts	-	1	2	2	-	3	-	-	-	2	-	1	11
Michigan	21	17	12	12	13	5	3	8	9	14	5	12	131
Minnesota	14	5	5	4	4	8	5	4	5	6	9	6	75
Mississippi	3	7	10	10	7	4	7	10	8	5	4	8	83
Missouri	9	7	6	5	5	3	5	8	4	2	7	12	73
Montana	1	-	3	2	-	-	1	-	3	3	2	2	17
Nebraska	4	7	2	6	6	8	2	1	7	6	3	6	58
Nevada	1	-	-	-	-	-	1	1	-	-	-	-	3
New Hampshire	-	-	1	-	-	1	-	-	-	-	-	-	2
New Jersey	1	3	1	2	3	4	4	2	-	3	3	2	28
New Mexico	3	-	1	-	2	1	-	1	-	-	1	1	10
New York	6	3	2	6	2	-	2	4	2	4	2	4	37
North Carolina	16	5	10	6	8	8	-	3	6	9	11	13	95
North Dakota	4	-	4	-	2	1	1	-	2	2	2	2	20
Ohio	21	17	25	12	15	8	9	11	15	21	23	23	200
Oklahoma	4	4	5	1	8	6	9	6	7	6	9	10	75
Oregon	3	5	3	7	2	2	6	3	1	4	7	1	44
Pennsylvania	8	6	3	6	5	4	5	5	5	9	11	5	72
Puerto Rico	-	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	6	3	8	4	3	1	7	11	4	6	5	6	64
South Dakota	1	1	-	1	1	1	-	1	1	2	-	1	10
Tennessee	9	3	3	6	5	9	9	5	6	9	9	11	84
Texas	32	35	10	23	22	25	23	25	27	17	21	32	292
Utah	3	3	-	1	3	1	1	3	1	2	1	2	21
Vermont	-	1	-	1	-	1	-	-	-	-	1	-	4
Virginia	4	5	4	2	3	2	1	4	5	6	7	6	49
Washington	4	5	2	7	3	1	8	7	2	3	3	6	51
West Virginia	2	4	1	3	2	-	-	1	2	3	1	-	19
Wisconsin	6	4	9	6	5	3	4	6	5	8	6	12	74
Wyoming	-	-	-	1	-	2	1	1	1	-	-	-	6
Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-
Total.....	328	283	235	250	250	208	217	246	244	299	293	321	3174

TABLE 20-A CASUALTIES IN ALL TYPES OF RAIL-HIGHWAY ACCIDENTS
BY STATE, 1973

State	Accidents	Killed		Injured		Total Casualties	
		#	Pct.	#	Pct.	#	Pct.
Alabama	104	35	2.9	112	3.4	147	3.2
Alaska	0	0	0.0	0	0.0	0	0.0
Arizona	22	4	0.3	33	1.0	37	0.8
Arkansas	68	21	1.7	70	2.1	91	2.0
California	175	69	5.8	150	4.5	219	4.9
Colorado	40	22	1.8	30	0.9	52	1.1
Connecticut	3	0	0.0	5	0.1	5	0.1
Delaware	0	0	0.0	0	0.0	0	0.0
District of Columbia	0	0	0.0	0	0.0	0	0.0
Florida	197	81	6.8	191	5.8	272	6.0
Georgia	173	54	4.5	195	5.9	249	5.5
Hawaii	0	0	0.0	0	0.0	0	0.0
Idaho	39	12	1.0	34	1.0	46	1.0
Illinois	248	104	8.7	219	6.6	323	7.2
Indiana	179	65	5.4	170	5.1	235	5.2
Iowa	82	25	2.1	74	2.2	99	2.2
Kansas	85	26	2.1	83	2.5	109	2.4
Kentucky	53	21	1.7	42	1.2	63	1.4
Louisiana	72	19	1.6	84	2.5	103	2.3
Maine	8	1	0.0	12	0.3	13	0.2
Maryland	25	1	0.0	23	0.7	24	0.5
Massachusetts	12	6	0.5	9	0.2	15	0.3
Michigan	139	50	4.2	134	4.0	184	4.1
Minnesota	80	29	2.4	76	2.3	105	2.3
Mississippi	89	26	2.1	94	2.8	120	2.6
Missouri	79	32	2.7	74	2.2	106	2.3
Montana	17	4	0.3	15	0.4	19	0.4
Nebraska	60	32	2.7	47	1.4	79	1.7
Nevada	3	2	0.1	13	0.3	15	0.3
New Hampshire	2	0	0.0	2	0.0	2	0.0
New Jersey	32	6	0.5	26	0.7	32	0.7
New Mexico	10	4	0.3	8	0.2	12	0.2
New York	42	16	1.3	38	1.1	54	1.2
North Carolina	99	50	4.2	115	3.5	165	3.6
North Dakota	21	6	0.5	17	0.5	23	0.5
Ohio	212	67	5.6	187	5.6	254	5.6
Oklahoma	76	20	1.6	76	2.3	96	2.1
Oregon	47	12	1.0	45	1.3	57	1.2
Pennsylvania	79	20	1.6	73	2.2	93	2.0
Puerto Rico	0	0	0.0	0	0.0	0	0.0
Rhode Island	0	0	0.0	0	0.0	0	0.0
South Carolina	67	21	1.7	80	2.4	101	2.2
South Dakota	10	4	0.3	15	0.4	19	0.4
Tennessee	87	39	3.2	73	2.2	112	2.5
Texas	301	96	8.1	306	9.3	402	8.9
Utah	21	10	0.8	14	0.4	24	0.5
Vermont	4	0	0.0	5	0.1	5	0.1
Virginia	56	15	1.2	66	2.0	81	1.8
Washington	53	15	1.2	50	1.5	65	1.4
West Virginia	22	7	0.5	17	0.5	24	0.5
Wisconsin	80	30	2.5	77	2.3	107	2.3
Wyoming	6	6	0.5	4	0.1	10	0.2
Unknown	0	0	0.0	0	0.0	0	0.0
Total.....	3,379	1,185	100.0	3,283	100.0	4,468	100.0

TABLE 20-B CASUALTIES IN RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES
BY STATE AND NUMBER OF AUTOMOBILES REGISTERED, 1973

State	Total Accidents	Killed		Injured		Total		Vehicles Registered (000)	Casualties per 10,000 Registrations		
		#	Pct.	#	Pct.	#	Pct.		Killed	Injured	Total
Alabama	101	34	3.1	110	3.4	144	3.3	2,354	0.14	0.46	0.61
Alaska	0	0	0.0	0	0.0	0	0.0	160	0.00	0.00	0.00
Arizona	21	3	0.2	33	1.0	36	0.8	1,419	0.02	0.23	0.25
Arkansas	66	20	1.8	69	2.1	89	2.0	1,185	0.16	0.57	0.74
California	157	57	5.2	144	4.5	201	4.7	13,413	0.04	0.10	0.14
Colorado	40	22	2.0	30	0.9	52	1.2	1,803	0.12	0.16	0.28
Connecticut	3	0	0.0	5	0.1	5	0.1	1,891	0.00	0.02	0.02
Delaware	0	0	0.0	0	0.0	0	0.0	333	0.00	0.00	0.00
District of Columbia	0	0	0.0	0	0.0	0	0.0	261	0.00	0.00	0.00
Florida	184	75	6.9	183	5.7	258	6.0	5,347	0.14	0.34	0.48
Georgia	165	49	4.5	193	6.0	242	5.6	3,170	0.15	0.60	0.76
Hawaii	0	0	0.0	0	0.0	0	0.0	478	0.00	0.00	0.00
Idaho	37	11	1.0	33	1.0	44	1.0	590	0.18	0.55	0.74
Illinois	216	87	8.0	203	6.3	290	6.7	5,952	0.14	0.34	0.48
Indiana	171	61	5.6	166	5.2	227	5.3	2,978	0.20	0.55	0.76
Iowa	76	23	2.1	72	2.2	95	2.2	1,979	0.11	0.36	0.47
Kansas	83	24	2.2	83	2.6	107	2.5	1,778	0.13	0.46	0.60
Kentucky	52	20	1.8	42	1.3	62	1.4	2,091	0.09	0.20	0.29
Louisiana	66	17	1.5	81	2.5	98	2.2	2,057	0.08	0.39	0.47
Maine	7	1	0.0	11	0.3	12	0.2	596	0.01	0.18	0.20
Maryland	21	1	0.0	19	0.5	20	0.4	2,259	0.00	0.08	0.08
Massachusetts	11	5	0.4	9	0.2	14	0.3	2,952	0.01	0.03	0.04
Michigan	131	48	4.4	128	4.0	176	4.1	5,240	0.09	0.24	0.33
Minnesota	75	26	2.4	74	2.3	100	2.3	2,452	0.10	0.30	0.40
Mississippi	83	21	1.9	93	2.9	114	2.6	1,312	0.16	0.70	0.87
Missouri	73	27	2.5	72	2.2	99	2.3	2,745	0.09	0.26	0.36
Montana	17	4	0.3	15	0.4	19	0.4	567	0.07	0.26	0.33
Nebraska	58	31	2.8	47	1.4	78	1.8	1,097	0.28	0.42	0.70
Nevada	3	2	0.1	13	0.4	15	0.3	437	0.04	0.29	0.34
New Hampshire	2	0	0.0	2	0.0	2	0.0	462	0.00	0.04	0.04
New Jersey	28	3	0.2	24	0.7	27	0.6	4,074	0.00	0.05	0.06
New Mexico	10	4	0.3	8	0.2	12	0.2	726	0.05	0.10	0.16
New York	37	13	1.2	36	1.1	49	1.1	7,319	0.01	0.04	0.06
North Carolina	95	49	4.5	113	3.5	162	3.7	3,445	0.14	0.32	0.46
North Dakota	20	5	0.4	17	0.5	22	0.5	489	0.10	0.34	0.44
Ohio	200	58	5.3	184	5.7	242	5.6	6,679	0.08	0.27	0.36
Oklahoma	75	20	1.8	75	2.3	95	2.2	1,984	0.10	0.37	0.47
Oregon	44	9	0.8	45	1.4	54	1.2	1,606	0.05	0.27	0.33
Pennsylvania	72	17	1.5	69	2.1	86	2.0	6,675	0.02	0.10	0.12
Puerto Rico	0	0	0.0	0	0.0	0	0.0	0	0.00	0.00	0.00
Rhode Island	0	0	0.0	0	0.0	0	0.0	563	0.00	0.00	0.00
South Carolina	64	19	1.7	79	2.4	98	2.2	1,601	0.11	0.49	0.61
South Dakota	10	4	0.3	15	0.4	19	0.4	486	0.08	0.30	0.38
Tennessee	84	38	3.5	72	2.2	110	2.5	2,467	0.15	0.29	0.44
Texas	292	93	8.6	302	9.4	395	9.2	7,816	0.11	0.38	0.50
Utah	21	10	0.9	14	0.4	24	0.5	751	0.13	0.18	0.32
Vermont	4	0	0.0	5	0.1	5	0.1	275	0.00	0.17	0.17
Virginia	49	12	1.1	62	1.9	74	1.7	2,794	0.04	0.22	0.26
Washington	51	14	1.2	49	1.5	63	1.4	2,371	0.05	0.20	0.26
West Virginia	19	6	0.5	15	0.4	21	0.4	911	0.06	0.16	0.23
Wisconsin	74	28	2.5	74	2.3	102	2.3	2,473	0.11	0.29	0.41
Wyoming	6	6	0.5	4	0.1	10	0.2	294	0.20	0.13	0.34
Unknown	0	0	0.0	0	0.0	0	0.0	0	0.00	0.00	0.00
Total.....	3,174	1,077	100.0	3,192	100.0	4,269	100.0	125,157	0.08	0.25	0.34

NOTE: Figures furnished by Federal Highway Administration, Bureau of Public Roads, and cover passenger automobiles, trucks and buses.

TABLE 21-A CASUALTIES IN ACCIDENTS AT PUBLIC RAIL-HIGHWAY CROSSINGS
BY CAUSE OF ACCIDENT, 1973

Cause Code	Cause	Number of Accidents	Total Persons		Employees on duty				Employees not on duty		Passengers		Non-trespassers		Trespassers			
			Killed	Injured	Total	Trainmen	Others	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured			
Train accidents																		
4401	Passenger automobile struck by locomotive or car	50	45	16	0	2	0	2	0	0	0	0	3	40	11	5	0	
4402	Bus struck by locomotive or car	1	0	8	0	0	0	0	0	0	0	0	0	0	8	0	0	
4403	Truck struck by locomotive or car	158	24	82	3	32	3	31	0	1	0	0	5	20	44	1	1	
4404	Other vehicle struck by locomotive or car	10	2	3	0	0	0	0	0	0	0	0	0	2	3	0	0	
4411	Passenger automobile ran into side of locomotive or car	23	1	16	0	0	0	0	0	0	0	0	1	1	12	0	3	
4413	Truck ran into side of locomotive or car	51	20	46	0	7	0	2	0	5	0	0	0	20	20	19	0	0
4421	Sudden brake application to avoid highway crossing accident	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4488	Other highway grade crossing accidents	4	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
SUBTOTAL		302	93	171	3	41	3	35	0	6	0	0	29	84	97	6	4	
Train service accidents																		
5601	At public crossing, pedestrian struck by locomotive or car	95	73	25	0	1	0	1	0	0	0	0	0	44	13	29	11	
5602	At public crossing, passenger auto struck by locomotive or car	1,532	592	1,588	1	5	0	3	1	2	0	0	2	569	1,507	22	74	
5603	At public crossing, bus struck by locomotive or car	13	13	40	0	1	0	1	0	0	0	0	0	13	39	0	0	
5604	At public crossing, truck struck by locomotive or car	445	158	399	0	19	0	16	0	3	0	0	3	154	363	4	14	
5605	At public crossing, motorcycle struck by locomotive or car	10	7	3	0	0	0	0	0	0	0	0	0	6	2	1	1	
5606	At public crossing, other vehicle, machine or animal hit by train	42	22	22	0	0	0	0	0	0	0	0	0	15	21	7	1	
5607	At public crossing, pedestrian ran into or drawn into train	11	4	7	0	0	0	0	0	0	0	0	0	2	3	2	4	
5608	At public crossing, passenger auto ran into side of train	676	140	802	0	4	0	4	0	0	1	0	0	131	762	9	35	
5610	At public crossing, truck ran into side of locomotive or car	160	42	161	0	2	0	2	0	0	0	0	0	42	157	0	2	
5611	At public crossing, motorcycle ran into side of locomotive or car	55	35	31	0	0	0	0	0	0	0	0	0	35	31	0	0	
5612	At public crossing, other vehicle, machine or animal ran into train	6	3	4	0	1	0	1	0	0	0	0	0	2	1	1	2	
5614	Sudden train brake application to avoid highway crossing accident	4	0	4	0	3	0	3	0	0	0	0	1	0	0	0	0	
5615	Pedestrian crossing between cars on public crossing	6	0	6	0	0	0	0	0	0	0	0	0	0	1	0	5	
5688	Highway crossing accidents due to other causes	22	3	20	0	10	0	10	0	0	0	0	0	3	9	0	1	
SUBTOTAL		3,077	1,092	3,112	1	46	0	41	1	5	0	1	6	1,016	2,909	75	150	
GRAND TOTAL		3,379	1,185	3,283	4	87	3	76	1	11	0	1	35	1,100	3,006	81	154	

TABLE 21-B CASUALTIES IN ACCIDENTS AT PRIVATE RAIL-HIGHWAY CROSSINGS BY CAUSE OF ACCIDENT, 1973

Cause Code	Cause	Number of Accidents	Total Persons		Employees on duty				Employees not on duty		Passengers		Non-trespassers		Trespassers		
			Killed	Injured	Total	Trainmen	Others	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured		
4422	Highway vehicle struck by locomotive or car at private crossing	13	2	6	0	2	0	2	0	0	0	0	0	2	3	0	1
4423	Highway vehicle ran into locomotive or car at private crossing	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4487	Other private crossing accidents	7	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0
5702	Struck by train, crossing track at private crossing	96	36	91	1	8	1	1	0	7	0	0	0	34	82	1	1
Grand Total		117	39	98	1	10	1	3	0	7	0	0	0	37	86	1	2

TABLE 22 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES BY KIND OF CROSSING PROTECTION IN 1973

Railroad	Total	Lowered Gates	Train- men	Watch- men	Audible and Visible Signals	Audible Signals	Visible Signals	Passive Signals
CLASS I RR (LINE-HAUL)								
EASTERN DISTRICT								
Akron Canton & Youngstown	2	-	1	-	-	-	-	1
Ann Arbor	1	-	-	-	1	-	-	-
Baltimore & Ohio	76	2	-	-	18	1	12	43
Bessemer & Lake Erie	1	-	-	-	1	-	-	-
Boston & Maine	7	2	-	-	2	-	-	3
Central RR Co. of New Jersey	10	2	2	-	1	-	-	5
Central Vermont	5	-	-	-	1	-	-	4
Chesapeake & Ohio	105	5	2	-	28	-	19	51
Chicago & Eastern Illinois	5	-	-	-	1	-	-	4
Delaware & Hudson	1	1	-	-	-	-	-	-
Detroit, Toledo & Ironton	8	-	-	-	1	-	-	7
Elgin, Joliet & Eastern	8	-	-	-	-	-	2	6
Erie-Lackawanna	47	3	1	2	7	2	21	11
Grand Trunk Western	38	5	-	-	14	-	2	17
Illinois Terminal	1	-	-	-	-	-	-	1
Lehigh Valley	5	-	-	-	4	-	-	1
Long Island	3	2	-	-	-	-	-	1
Maine Central	3	-	-	-	-	-	-	3
Norfolk & Western	231	6	1	-	41	2	54	127
Penn Central	186	17	2	-	19	2	48	98
Pennsylvania-Reading Seashore Lines	6	1	-	-	-	-	3	-
Reading	20	2	1	-	1	-	11	5
Western Maryland	12	2	-	-	-	-	4	6
SUBTOTAL, EASTERN DISTRICT	781	50	10	2	142	7	176	394
SOUTHERN DISTRICT								
Alabama Great Southern	17	-	-	-	-	-	7	10
Central of Georgia	40	-	1	-	1	-	8	30
Cincinnati, New Orleans & Texas Pacific	13	-	1	-	2	-	-	10
Clinchfield	2	-	-	-	-	-	-	2
Florida East Coast	18	3	-	-	10	-	-	5
Georgia	7	-	-	-	1	-	-	6
Georgia Southern & Florida	15	-	-	-	1	-	5	9
Illinois Central	167	2	-	-	31	-	7	127
Louisville & Nashville	141	5	2	-	37	-	11	86
Norfolk Southern	6	-	-	-	2	-	-	4
Seaboard Coast Line	302	6	2	-	42	1	45	206
Southern	176	1	1	-	16	1	31	126
SUBTOTAL, SOUTHERN DISTRICT	904	17	7	-	143	2	114	621
WESTERN DISTRICT								
Atchison, Topeka & Santa Fe	151	17	3	-	65	-	5	61
Burlington Northern	156	1	1	1	28	-	23	102
Chicago & North Western	94	4	-	-	15	-	12	63
Chicago, Milwaukee, St. Paul & Pacific	73	2	1	-	19	-	10	41
Chicago, Rock Island & Pacific	127	5	-	-	44	2	-	76
Colorado & Southern	10	1	1	-	6	-	-	2
Denver & Rio Grande Western	15	-	-	-	10	-	-	5
Duluth, Missabe & Iron Range	1	-	-	-	-	-	-	1
Duluth, Winnipeg & Pacific	8	-	1	-	5	-	-	2
Fort Worth & Denver	2	-	-	-	1	-	-	1
Green Bay & Western	10	-	-	-	4	-	-	6
Kansas City Southern	1	-	-	-	-	-	-	1
Lake Superior & Ishpeming	33	-	-	-	7	-	3	23
Missouri-Kansas-Texas	142	5	2	-	43	2	12	78
Missouri Pacific	6	-	-	-	3	-	-	3
Northwestern Pacific	91	-	2	-	19	-	2	68
St. Louis-San Francisco	21	-	-	-	7	-	1	13
St. Louis Southwestern	47	1	-	-	10	-	12	24
Soo Line	194	18	-	-	70	-	25	81
Southern Pacific	47	2	1	-	21	-	1	22
Texas & Pacific	2	-	-	-	2	-	-	-
Texas Mexican	1	-	-	-	1	-	-	-
Toledo, Peoria & Western	136	2	1	-	19	-	22	92
Union Pacific	22	2	-	-	8	-	2	10
Western Pacific	22	2	-	-	-	-	-	-
SUBTOTAL, WESTERN DISTRICT	1,391	60	13	1	407	4	130	776
CLASS I RR (SWITCHING AND TERMINAL)								
EASTERN DISTRICT								
Baltimore & Ohio Chicago Terminal	3	1	-	-	-	-	2	-
Belt Ry. Co. of Chicago	1	1	-	-	-	-	-	-
Indiana Harbor Belt	1	1	-	-	-	-	-	1
River Terminal	1	-	-	-	1	-	-	-
Union RR (Penna.)	1	-	-	-	-	-	-	-
SUBTOTAL, EASTERN DISTRICT	7	3	-	-	1	-	2	1
SOUTHERN DISTRICT								
Birmingham Southern	1	-	-	-	1	-	-	-
Kentucky & Indiana Terminal	1	-	-	-	-	-	-	1
SUBTOTAL, SOUTHERN DISTRICT	2	-	-	-	1	-	-	1
WESTERN DISTRICT								
Portland Terminal	2	-	2	-	-	-	-	-
Port Terminal RR Association	2	-	-	-	1	-	-	1
Terminal RR Association of St. Louis	1	-	-	-	-	-	-	1

(CONT.) TABLE 22 RAIL-HIGHWAY ACCIDENTS INVOLVING MOTOR VEHICLES BY KIND OF CROSSING PROTECTION IN 1973

Railroad	Total	Lowered Gates	Train- men	Watch- men	Audible and Visible Signals	Audible Signals	Visible Signals	Passive Signals
WESTERN DISTRICT (CONT.)								
T.P. - M.P. Terminal of New Orleans	1	-	-	-	1	-	-	-
SUBTOTAL, WESTERN DISTRICT	6	-	2	-	2	-	-	2
CLASS II RR								
ALL DISTRICTS CLASS II								
Class II	83	2	3	-	18	-	10	50
SUBTOTAL, ALL DISTRICTS, CLASS II	83	2	3	-	18	-	10	50
RECAPITULATION								
ALL DISTRICTS								
Eastern District	788	53	10	2	143	7	178	395
Southern District	906	17	7	-	144	2	114	622
Western District	1,397	60	15	1	409	4	130	778
Class I RR (Line-haul)	3,076	127	30	3	692	13	420	1,791
Class I RR (Switching and Terminal)	15	3	2	-	4	-	2	4
Railroads All Other Classes	83	2	3	-	18	-	10	50
TOTAL FOR ALL RAILROADS	3,174	132	35	3	714	13	432	1,845