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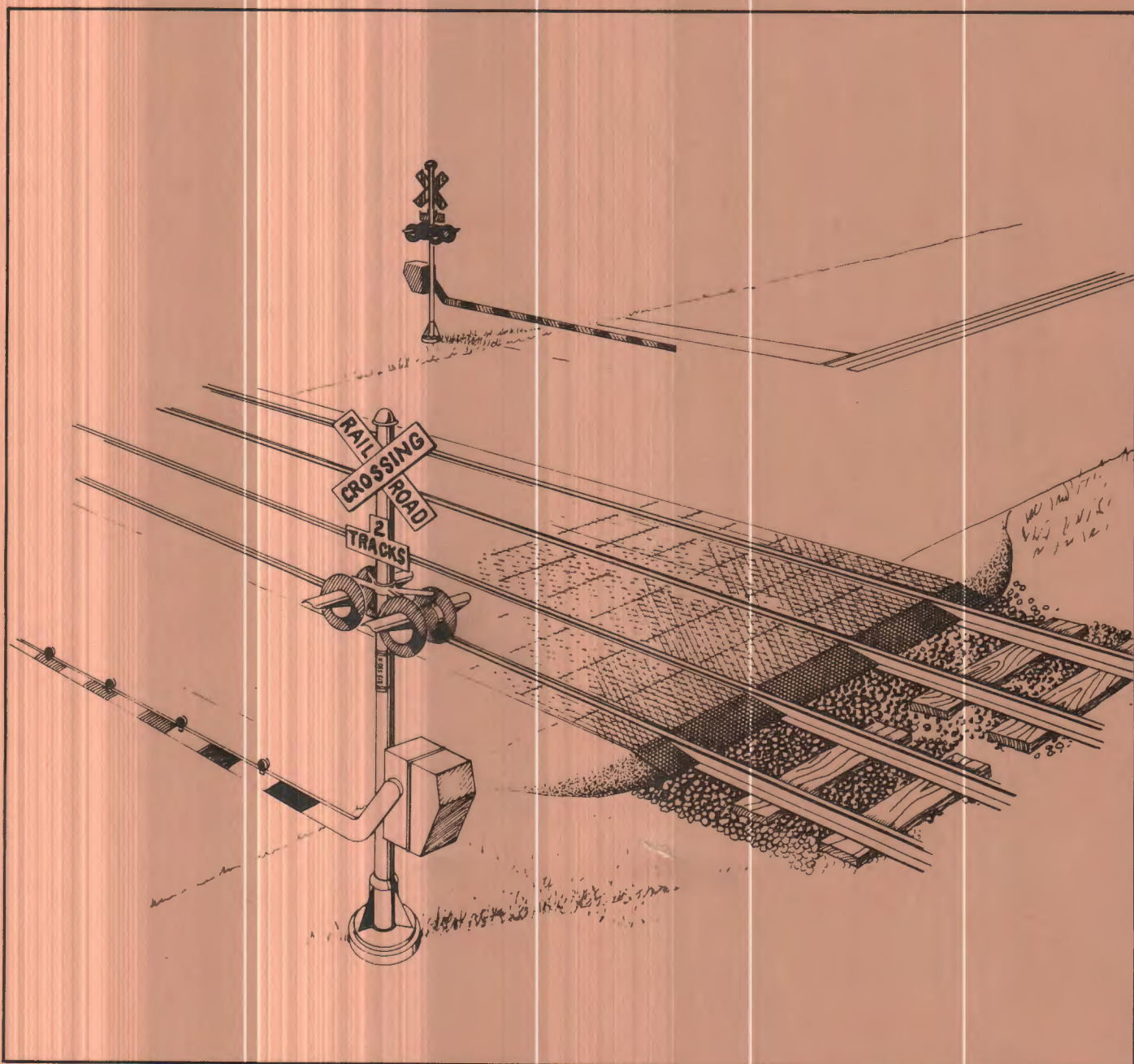
U.S. Department  
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**Federal Railroad  
Administration**  
Office of Safety

# Rail-Highway Crossing Accident/Incident and Inventory Bulletin

## No. 11

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## LIST OF ABBREVIATIONS

ACC/INC	-	accident/incident
A/I	-	accident/incident
CONT	-	contractor employee
ENOD	-	employee not on duty
EOD	-	employee on duty
FA	-	Federal aid
HWY	-	highway
INJ	-	injury or casualty
K	-	thousands
KLD	-	killed
MUTCD	-	Manual on Uniform Traffic Control Devices
LOCO(S)	-	locomotive
NONT	-	non-trespasser
PSGR	-	passenger
SIG	-	signal
TRES	-	trespasser
VEH REG	-	vehicles registered

## INTRODUCTION

The eleventh annual report, issued by the Federal Railroad Administration (FRA) Office of Safety, combines rail-highway crossing accident/incident statistics with the National Rail-Highway Crossing Inventory. Accident/Incident data is compiled from monthly reports filed by railroads. The National Rail-Highway Crossing Inventory contains sight-survey data about individual crossings and is provided by states and railroads.

Information concerning trespassers who were killed or injured as a result of railroad operations can be found in Appendix E. Additional summaries of accidents/incidents involving trespassers can be found in the annual Accident/Incident Bulletin published by FRA.

The Federal Railroad Safety Act of 1970 (P.L. 91-458) and the Accident Reports Act (45 U.S.C. 38-34) require railroads to file accident/incident reports with the FRA. The National Rail-Highway Crossing Inventory was developed in response to the Federal Railroad Safety Act of 1970 and the Federal Highway Safety Acts of 1970 and 1973, which require the Secretary of Transportation to work towards improving safety at rail-highway crossings.

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Section 1 presents historical data on rail-highway crossing accidents/incidents at public crossings for 1983 through 1988.

Section 2 contains 1988 accident/incident statistics on rail-highway crossing accidents/incidents that occurred at public crossing sites.

Section 3 combines information from the rail-highway crossing accident/incident file with data in the National Rail-Highway Crossing Inventory. This section displays the relationship between certain grade-crossing characteristics and accident frequencies.

Section 4 gives the physical and operation statistics for all public at-grade rail-highway crossings as described in the inventory on May 23, 1989.

The tables and figures in Sections 1, 2, 3, 4, and Appendix C furnish data on public rail-highway crossings. Appendix D and tables 33 and 34 present data on private crossings. The majority of the accident tables and charts shown in this bulletin provide information on motor vehicle accidents. Those tables and figures that do not refer to motor vehicle in their title contain data for all accidents/incidents. The trespasser information found in Appendix E includes all reportable situations; the grade crossing counts in this section cover both public and private crossings.

FRA performs extensive testing of the accident/incident and inventory files to identify inconsistencies in the information being reported. Occasionally an unresolved condition will exist at the same time the bulletin is prepared. This may result in slight differences between total number on some tables.

The U.S. DOT Rail-Highway Crossing Resource Allocation Procedure, as directed in the Rail-Highway Crossing Resource Allocation Procedure User's Guide, Third Edition, DOT/FRA/OS-87/10, August 1987, uses three "normalizing constants" within the accident prediction formulas. These constants need to be adjusted periodically in order to keep the formulas current with recent accident trends. Within the User's Guide, Third Edition, the commitment was made to periodically recalculate and publish these constants in the annual bulletin starting with No. 11, for Calendar Year 1988.

The constants have been recalculated such that predictions, based on accident history for Calendar Years 1982 through 1986, sum to 1987's actual experience for each of the three warning device groups, passive, flashers, and gates. The new constants, for use in Formula A, section 3.2.4 of the User's Guide, Third Edition, are:

	<u>New</u>		<u>Old</u>
Passive	.8978	versus	.8644
Flashing Lights	.8013	versus	.8887
Gates	.8911	versus	.8131

Requests for resource allocation procedure listings, including accident prediction lists, will use the new constants starting October 1, 1988.

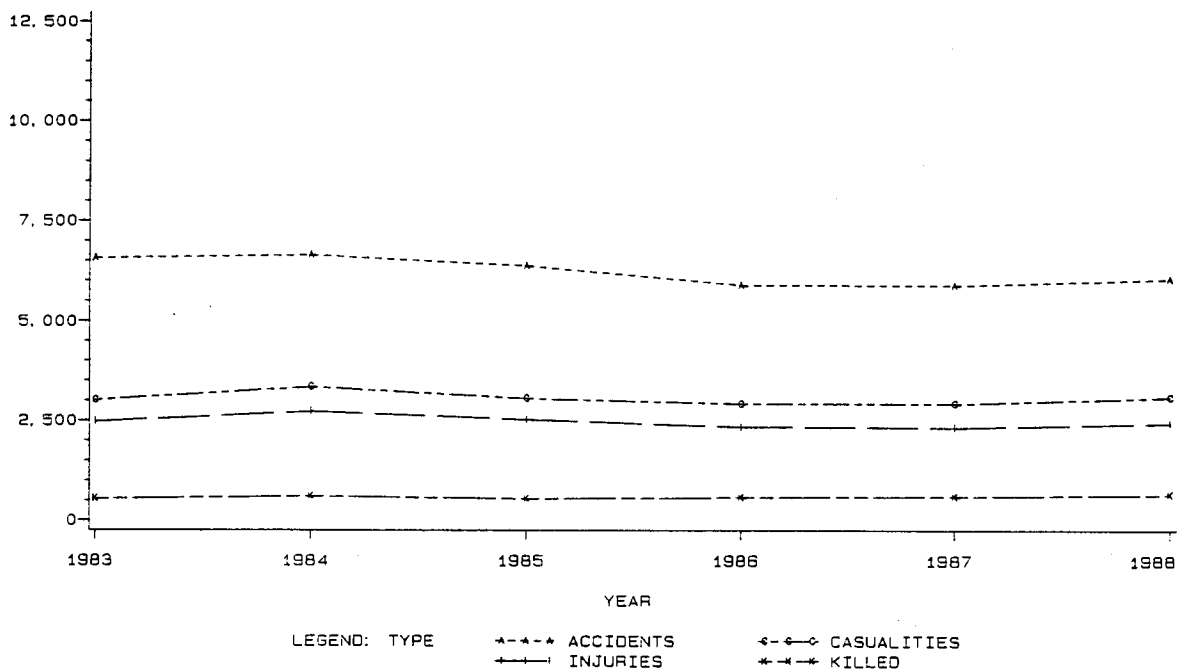
**TABLE — S**  
**SUMMARY OF RAIL—HIGHWAY CROSSING ACCIDENT/INCIDENTS, 1988**

Type of Crossing	.....Total.....			.....Motor Vehicles.....			.....Non-Motor Vehicles...		
	Accidents	Killed	Injured	Accidents	Killed	Injured	Accidents	Killed	Injured
Public	6,025	652	2,417	5,820	594	2,344	205	58	73
Private	590	37	172	555	34	163	35	3	9
Total	6,615	689	2,589	6,375	628	2,507	240	61	82

**1. RAIL-HIGHWAY CROSSING ACCIDENTS/INCIDENTS: HISTORICAL DATA, LAST SIX YEARS**

**TABLE 1. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS, LAST SIX YEARS**

YEAR	NUMBER OF ACCIDENTS	KILLED	TOTAL INJURED	CASUALTIES	CASUALTIES PER ACCIDENT
1983	6,562	542	2,467	3,009	0.46
1984	6,633	610	2,723	3,333	0.50
1985	6,353	537	2,508	3,045	0.48
1986	5,868	578	2,328	2,906	0.50
1987	5,859	598	2,313	2,911	0.50
1988	6,025	652	2,417	3,069	0.51

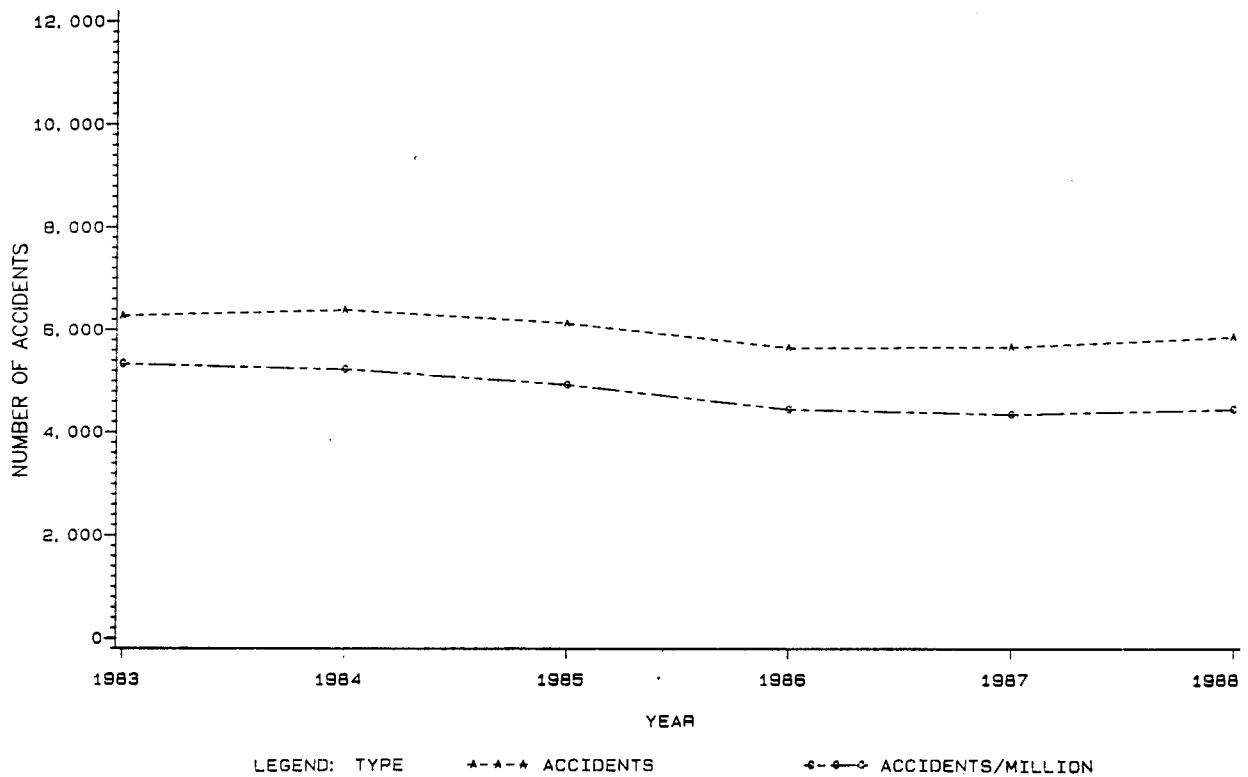


**FIGURE 1. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS, LAST SIX YEARS**

**TABLE 2. SUMMARY OF ACCIDENTS/INCIDENTS AND ACCIDENT RATES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES, LAST SIX YEARS**

YEAR	ACCIDENTS	MOTOR VEHICLES REGISTERED (000) 1	ACCIDENTS PER MILLION VEHICLES
1983	6,272	168,822	37.15
1984	6,370	171,324	37.18
1985	6,093	176,468	34.53
1986	5,620	180,747	31.09
1987	5,627	183,220	30.71
1988	5,820	187,465	31.05

1Figures supplied by the Federal Highway Administration



**FIGURE 2. SUMMARY OF ACCIDENTS/INCIDENTS AND ACCIDENT RATES AT RAIL-HIGHWAY CROSSING INVOLVING MOTOR VEHICLES, LAST SIX YEARS**

## 2. RAIL-HIGHWAY CROSSING ACCIDENTS/INCIDENTS 1988

### STATE AND RAILROAD DATA

**TABLE 3. SUMMARY OF ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS BY STATE**

State	No. Of Acc/Inc	---Killed---		---Injured---		Total -Casualties--	
		No.	%	No.	%	No.	%
Alabama.....	233	20	3.07	105	4.34	125	4.07
Alaska.....	10	1	.15	---	---	1	.03
Arizona.....	24	12	1.84	5	.21	17	.55
Arkansas.....	152	21	3.22	59	2.44	80	2.61
California.....	252	31	4.75	96	3.97	127	4.14
Colorado.....	74	5	.77	18	.74	23	.75
Connecticut.....	20	3	.46	5	.21	8	.26
Delaware.....	13	1	.15	6	.25	7	.23
Dist. of Columbia	---	---	---	---	---	---	---
Florida.....	221	27	4.14	92	3.81	119	3.88
Georgia.....	221	25	3.83	71	2.94	96	3.13
Idaho.....	47	11	1.69	12	.50	23	.75
Illinois.....	402	70	10.74	203	8.40	273	8.90
Indiana.....	351	42	6.44	127	5.25	169	5.51
Iowa.....	157	10	1.53	66	2.73	76	2.48
Kansas.....	120	19	2.91	43	1.78	62	2.02
Kentucky.....	93	3	.46	49	2.03	52	1.69
Louisiana.....	273	15	2.30	134	5.54	149	4.86
Maine.....	15	---	---	2	.08	2	.07
Maryland.....	29	2	.31	8	.33	10	.33
Massachusetts....	21	1	.15	8	.33	9	.29
Michigan.....	217	28	4.29	87	3.60	115	3.75
Minnesota.....	150	12	1.84	56	2.32	68	2.22
Mississippi.....	157	18	2.76	89	3.68	107	3.49
Missouri.....	154	24	3.68	58	2.40	82	2.67
Montana.....	21	1	.15	9	.37	10	.33
Nebraska.....	85	11	1.69	30	1.24	41	1.34
Nevada.....	3	1	.15	---	---	1	.03
New Hampshire.....	1	---	---	---	---	---	---
New Jersey.....	62	9	1.38	31	1.28	40	1.30
New Mexico.....	22	4	.61	8	.33	12	.39
New York.....	80	10	1.53	24	.99	34	1.11
North Carolina...	215	18	2.76	76	3.14	94	3.06
North Dakota.....	24	6	.92	13	.54	19	.62
Ohio.....	392	45	6.90	164	6.79	209	6.81
Oklahoma.....	167	15	2.30	82	3.39	97	3.16
Oregon.....	43	3	.46	8	.33	11	.36
Pennsylvania.....	117	7	1.07	29	1.20	36	1.17
Rhode Island.....	---	---	---	---	---	---	---
South Carolina...	127	8	1.23	61	2.52	69	2.25
South Dakota.....	22	---	---	11	.46	11	.36
Tennessee.....	149	15	2.30	45	1.86	60	1.96
Texas.....	604	62	9.51	256	10.59	318	10.36
Utah.....	27	6	.92	9	.37	15	.49
Vermont.....	2	---	---	1	.04	1	.03
Virginia.....	113	7	1.07	43	1.78	50	1.63
Washington.....	94	10	1.53	15	.62	25	.81
West Virginia....	38	1	.15	14	.58	15	.49
Wisconsin.....	203	11	1.69	88	3.64	99	3.23
Wyoming.....	8	1	.15	1	.04	2	.07
Unknown.....	---	---	---	---	---	---	---
Total.....	6,025	652	100.00	2,417	100.00	3,069	100.00



**TABLE 4. ACCIDENTS/INCIDENTS AND CASUALTY RATES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY STATE**

State	No. Of Acc/Inc	-----Casualties-----			Vehicles Registered	--Per 10,000 Registration--		
		Kid	Inj	Total		Acc/Inc	Kid	Inj
Alabama.....	230	19	105	124	3,702,000	.62	.05	.28
Alaska.....	10	1	---	1	363,000	.28	.03	---
Arizona.....	22	11	5	16	2,555,000	.09	.04	.02
Arkansas.....	145	20	57	77	1,498,000	.97	.13	.38
California.....	244	30	93	123	21,942,000	.11	.01	.04
Colorado.....	71	5	18	23	3,197,000	.22	.02	.06
Connecticut.....	18	3	1	4	2,726,000	.07	.01	---
Delaware.....	13	1	6	7	506,000	.26	.02	.12
Dist. of Columbia	---	---	---	---	270,000	---	---	---
Florida.....	213	25	88	113	11,259,000	.19	.02	.08
Georgia.....	214	24	67	91	5,310,000	.40	.05	.13
Idaho.....	46	11	12	23	1,063,000	.43	.10	.11
Illinois.....	377	62	189	251	8,124,000	.46	.08	.23
Indiana.....	344	40	124	164	3,831,000	.90	.10	.32
Iowa.....	147	6	64	70	2,974,000	.49	.02	.22
Kansas.....	113	17	43	60	2,286,000	.49	.07	.19
Kentucky.....	93	3	49	52	2,798,000	.33	.01	.18
Louisiana.....	268	15	130	145	2,966,000	.90	.05	.44
Maine.....	14	---	2	2	965,000	.15	---	.02
Maryland.....	29	2	8	10	3,420,000	.08	.01	.02
Massachusetts....	19	1	7	8	4,041,000	.05	---	.02
Michigan.....	213	28	86	114	7,304,000	.29	.04	.12
Minnesota.....	144	12	55	67	3,413,000	.42	.04	.16
Mississippi.....	156	18	89	107	1,778,000	.88	.10	.50
Missouri.....	148	22	56	78	3,819,000	.39	.06	.15
Montana.....	19	1	8	9	666,000	.29	.02	.12
Nebraska.....	77	9	28	37	1,362,000	.57	.07	.21
Nevada.....	3	1	---	1	874,000	.03	.01	---
New Hampshire.....	1	---	---	---	947,000	.01	---	---
New Jersey.....	55	4	30	34	5,699,000	.10	.01	.05
New Mexico.....	16	1	5	6	1,313,000	.12	.01	.04
New York.....	74	6	22	28	10,260,000	.07	.01	.02
North Carolina...	213	17	75	92	5,078,000	.42	.03	.15
North Dakota.....	24	6	13	19	678,000	.35	.09	.19
Ohio.....	376	36	161	197	9,046,000	.42	.04	.18
Oklahoma.....	162	15	80	95	3,008,000	.54	.05	.27
Oregon.....	42	3	7	10	2,338,000	.18	.01	.03
Pennsylvania.....	115	7	27	34	8,063,000	.14	.01	.03
Rhode Island.....	---	---	---	---	697,000	---	---	---
South Carolina...	125	7	60	67	2,434,000	.51	.03	.25
South Dakota.....	19	---	9	9	720,000	.26	---	.13
Tennessee.....	149	15	45	60	4,212,000	.35	.04	.11
Texas.....	589	57	252	309	12,424,000	.47	.05	.20
Utah.....	26	6	9	15	1,164,000	.22	.05	.08
Vermont.....	2	---	1	1	485,000	.04	---	.02
Virginia.....	110	6	41	47	4,796,000	.23	.01	.09
Washington.....	91	8	15	23	4,061,000	.22	.02	.04
West Virginia....	36	1	13	14	1,240,000	.29	.01	.10
Wisconsin.....	197	11	88	99	3,276,000	.60	.03	.27
Wyoming.....	8	1	1	2	514,000	.16	.02	.02
Unknown.....	---	---	---	---	---	---	---	---
<b>Total.....</b>	<b>5,820</b>	<b>594</b>	<b>2,344</b>	<b>2,938</b>	<b>187,465,000</b>	<b>.31</b>	<b>.03</b>	<b>.13</b>

Note: Vehicle registration figures are for 1988 and were supplied by the Federal Highway Administration. Registration figures for Hawaii are omitted because it does not have any reporting railroads.

**TABLE 5. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY STATE AND TYPE OF MOTOR VEHICLE**

**TYPE OF MOTOR VEHICLE**

State	---Automobile---			---Truck---			---Truck Trailer---			---Bus---			---School Bus---			---Motorcycle---		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Alabama.....	158	13	72	42	4	17	27	2	12	---	---	---	---	---	---	3	---	4
Alaska.....	6	---	---	3	1	---	1	---	---	---	---	---	---	---	---	---	---	---
Arizona.....	12	5	1	7	6	---	3	---	4	---	---	---	---	---	---	---	---	---
Arkansas.....	79	12	36	50	5	19	16	3	2	---	---	---	---	---	---	---	---	---
California.....	149	14	55	62	11	31	27	3	6	1	---	---	---	---	5	2	1	
Colorado.....	47	5	8	17	---	8	7	---	2	---	---	---	---	---	---	---	---	---
Connecticut.....	14	3	1	3	---	---	1	---	---	---	---	---	---	---	---	---	---	---
Delaware.....	10	---	5	2	1	1	1	---	---	---	---	---	---	---	---	---	---	---
Dist. of Columbia	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Florida.....	178	21	72	21	4	5	12	---	9	1	---	1	---	---	1	---	1	
Georgia.....	134	18	45	44	5	17	36	1	5	---	---	---	---	---	---	---	---	
Idaho.....	27	8	6	13	3	3	6	---	3	---	---	---	---	---	---	---	---	
Illinois.....	266	47	135	73	12	28	35	2	26	2	---	---	---	---	1	1	---	
Indiana.....	263	31	97	68	8	22	12	1	4	---	---	---	---	---	1	---	1	
Iowa.....	110	5	47	24	1	13	10	---	2	1	---	1	---	---	2	---	1	
Kansas.....	67	15	32	29	2	6	17	---	5	---	---	---	---	---	---	---	---	
Kentucky.....	72	3	20	17	---	3	3	---	1	---	---	---	1	---	25	---	---	
Louisiana.....	146	7	70	101	6	50	20	2	10	---	---	---	---	---	1	---	---	
Maine.....	10	---	1	4	---	1	---	---	---	---	---	---	---	---	---	---	---	
Maryland.....	20	---	6	7	2	2	2	---	---	---	---	---	---	---	---	---	---	
Massachusetts.....	14	1	6	3	---	1	2	---	---	---	---	---	---	---	---	---	---	
Michigan.....	158	27	67	44	1	17	10	---	2	---	---	---	---	---	1	---	---	
Minnesota.....	106	12	37	26	---	10	12	---	8	---	---	---	---	---	---	---	---	
Mississippi.....	111	12	61	31	6	24	14	---	4	---	---	---	---	---	---	---	---	
Missouri.....	100	12	43	37	8	13	11	2	---	---	---	---	---	---	---	---	---	
Montana.....	6	1	3	11	---	3	2	---	2	---	---	---	---	---	---	---	---	
Nebraska.....	44	6	14	29	3	13	4	---	1	---	---	---	---	---	---	---	---	
Nevada.....	2	1	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	
New Hampshire.....	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
New Jersey.....	41	3	23	7	---	6	7	1	1	---	---	---	---	---	---	---	---	
New Mexico.....	10	1	1	5	---	3	---	---	---	---	---	---	---	---	1	---	1	
New York.....	56	6	11	14	---	2	4	---	9	---	---	---	---	---	---	---	---	
North Carolina.....	125	9	48	59	5	20	24	1	7	2	---	---	---	---	3	2	---	
North Dakota.....	12	6	4	8	---	7	3	---	1	1	---	1	---	---	---	---	---	
Ohio.....	265	23	112	81	12	40	27	1	5	---	---	---	---	---	3	---	4	
Oklahoma.....	94	10	48	50	3	22	18	2	10	---	---	---	---	---	---	---	---	
Oregon.....	22	3	3	12	---	2	8	---	2	---	---	---	---	---	---	---	---	
Pennsylvania.....	85	6	16	19	---	5	11	1	6	---	---	---	---	---	---	---	---	
Rhode Island.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
South Carolina.....	83	5	42	27	2	14	15	---	4	---	---	---	---	---	---	---	---	
South Dakota.....	14	---	6	4	---	3	1	---	---	---	---	---	---	---	---	---	---	
Tennessee.....	107	13	37	32	2	7	10	---	1	---	---	---	---	---	---	---	---	
Texas.....	352	32	153	168	21	64	64	2	22	2	---	12	---	---	3	2	1	
Utah.....	15	3	7	10	3	2	1	---	---	---	---	---	---	---	---	---	---	
Vermont.....	2	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Virginia.....	73	3	25	26	2	12	9	1	2	---	---	---	---	---	2	---	2	
Washington.....	66	8	10	20	---	4	5	---	1	---	---	---	---	---	---	---	---	
West Virginia.....	27	1	10	5	---	2	4	---	1	---	---	---	---	---	---	---	---	
Wisconsin.....	137	11	70	46	---	14	13	---	3	---	---	---	---	---	1	---	1	
Wyoming.....	4	1	---	3	---	1	1	---	---	---	---	---	---	---	---	---	---	
Unknown.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total.....	3,899	423	1,567	1,366	139	537	516	25	183	10	---	15	1	---	25	28	7	17

**TABLE 6. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY STATE AND TYPE OF TRAIN**

State	---Freight---			---Passenger---			-Yard Switching			-----Other-----		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Alabama.....	186	18	81	4	---	3	26	---	14	14	1	7
Alaska.....	3	---	---	2	1	---	3	---	---	2	---	---
Arizona.....	17	11	4	---	---	---	4	---	1	1	---	---
Arkansas.....	120	20	49	---	---	---	9	---	2	16	---	6
California.....	164	22	57	24	4	10	30	---	6	26	4	20
Colorado.....	59	5	16	2	---	---	5	---	1	5	---	1
Connecticut.....	6	1	---	9	2	1	---	---	---	3	---	---
Delaware.....	12	---	6	---	---	---	---	---	---	1	1	---
Dist. of Columbia	---	---	---	---	---	---	---	---	---	---	---	---
Florida.....	166	20	78	20	5	4	12	---	1	15	---	5
Georgia.....	180	22	61	2	---	---	15	---	1	17	2	5
Idaho.....	43	11	10	1	---	2	---	---	---	2	---	---
Illinois.....	237	43	123	56	15	37	39	1	7	45	3	22
Indiana.....	265	35	103	27	3	6	21	---	8	31	2	7
Iowa.....	93	5	48	3	---	1	26	1	11	25	---	4
Kansas.....	88	15	36	5	1	1	10	---	1	10	1	5
Kentucky.....	74	3	18	---	---	---	8	---	2	11	---	29
Louisiana.....	184	9	87	6	4	2	37	---	14	41	2	27
Maine.....	13	---	2	---	---	---	1	---	---	---	---	---
Maryland.....	20	2	6	---	---	---	6	---	2	3	---	---
Massachusetts....	9	---	1	7	1	4	2	---	1	1	---	1
Michigan.....	149	19	71	9	4	3	33	3	9	22	2	3
Minnesota.....	105	12	45	1	---	1	21	---	3	17	---	6
Mississippi.....	125	16	71	7	2	7	6	---	2	18	---	9
Missouri.....	116	21	39	9	---	9	14	1	5	9	---	3
Montana.....	16	1	8	---	---	---	2	---	---	1	---	---
Nebraska.....	63	9	25	1	---	---	7	---	2	6	---	1
Nevada.....	2	1	---	---	---	---	---	---	---	1	---	---
New Hampshire.....	1	---	---	---	---	---	---	---	---	---	---	---
New Jersey.....	37	1	19	8	2	5	2	---	---	8	1	6
New Mexico.....	12	1	3	1	---	---	2	---	---	1	---	2
New York.....	45	5	8	17	1	11	5	---	1	7	---	2
North Carolina....	186	17	63	9	---	1	7	---	10	11	---	1
North Dakota.....	22	6	12	1	---	---	---	---	---	1	---	1
Ohio.....	318	32	149	9	1	---	18	1	6	31	2	6
Oklahoma.....	130	15	64	---	---	---	17	---	7	15	---	9
Oregon.....	23	3	2	---	---	---	9	---	3	10	---	2
Pennsylvania.....	89	7	21	7	---	4	6	---	1	13	---	1
Rhode Island.....	---	---	---	---	---	---	---	---	---	---	---	---
South Carolina....	92	4	50	6	1	1	22	2	9	5	---	---
South Dakota.....	16	---	6	---	---	---	---	---	---	3	---	3
Tennessee.....	114	12	39	---	---	---	17	1	3	18	2	3
Texas.....	416	55	197	7	1	4	81	1	18	85	---	33
Utah.....	21	6	6	2	---	1	3	---	2	---	---	---
Vermont.....	1	---	---	---	---	---	---	---	---	1	---	1
Virginia.....	78	3	33	4	1	---	13	2	2	15	---	6
Washington.....	61	7	13	5	1	---	14	---	2	11	---	---
West Virginia....	25	1	8	4	---	1	2	---	---	5	---	4
Wisconsin.....	126	10	65	1	---	---	45	1	18	25	---	5
Wyoming.....	6	1	1	---	---	---	---	---	---	2	---	---
Unknown.....	---	---	---	---	---	---	---	---	---	---	---	---
Total.....	4,334	507	1,804	276	50	119	600	14	175	610	23	246

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

**TABLE 7. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY RAILROAD AND WARNING DEVICE CATEGORY**

**WARNING DEVICE CATEGORY**

Railroad	Gates	Flashing Lights	Hwy Sig. Wignags Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alaska Railroad Corporation.....	---	7	---	---	2	1	---	---	10
Amtrak(National Railroad Passenger Corp.)..	71	33	4	---	63	1	---	---	172
Arkansas And Missouri Railroad Company....	---	1	1	---	5	---	---	1	8
Atchison, Topeka And Santa Fe Railway Co..	71	82	2	---	98	1	---	---	254
Atlanta & Saint Andrews Bay Railway Co....	1	1	---	---	2	---	---	---	4
Bangor And Aroostook Railroad.....	---	4	---	---	1	---	---	---	5
Buffalo & Pittsburgh Railroad, Incorporate	---	---	---	---	3	---	---	---	3
Burlington Northern Railroad Company.....	86	145	2	5	299	1	---	3	541
Cedar Rapids And Iowa City Railway Company	---	2	---	---	1	---	---	---	3
Cedar Valley Railroad.....	---	---	---	---	4	---	---	---	4
Central Michigan Railway Company.....	---	6	---	---	13	---	---	---	19
Chicago & North Western Transportation Co.	42	63	8	3	84	4	1	2	207
Chicago Missouri & Western Railway.....	4	8	---	---	10	---	---	---	22
Chicago South Shore And South Bend RR.....	4	2	---	---	1	---	---	---	7
Chicago, Central & Pacific Railroad Co....	4	8	---	---	16	---	---	---	28
Columbus And Greenville Railway Company...	1	---	---	1	1	---	---	---	3
Consolidated Rail Corporation.....	127	185	12	10	214	3	3	5	559
CSX Transportation.....	170	265	47	17	367	9	2	7	884
Dakota Railroad.....	---	---	---	---	3	---	---	---	3
Dakota, Minnesota & Eastern Railroad.....	---	10	1	---	13	---	---	---	24
Delaware And Hudson Railroad Company.....	2	---	---	---	2	---	---	---	4
Denver And Rio Grande Western Railroad Co.	3	7	---	---	13	---	---	---	23
Dos Moines Union Railway Company.....	---	1	---	2	2	---	---	---	5
Detroit And Mackinac Railway Company.....	---	1	---	---	3	---	---	---	4
Eastern Shore Railroad Incorporated.....	1	1	---	---	2	---	---	---	4
Elgin, Joliet And Eastern Railway Company..	2	2	---	2	4	---	---	---	10
Escanaba And Lake Superior Railroad Co....	---	2	1	---	6	---	---	---	9
Florida Central Railroad.....	---	---	---	1	2	---	---	---	3
Florida East Coast Railway Company.....	60	1	---	---	1	---	---	---	62
Galveston Railway Incorporated.....	---	1	---	---	---	1	---	---	3
Grainbelt Corporation.....	---	3	---	---	---	1	1	---	4
Grand Trunk Western Railroad Company.....	21	16	---	---	19	1	---	---	57
Green Bay And Western Railroad Company....	---	7	---	---	5	---	---	---	12
Gulf And Mississippi Railroad Corporation..	---	1	---	---	11	---	---	---	12
Houston Belt & Terminal Railway Company...	4	2	---	---	3	---	---	1	10
Illinois Central Railroad Company.....	9	42	2	4	70	---	2	1	130
Indiana & Ohio Central Railroad, Inc.....	---	---	---	---	3	---	---	---	3
Indiana Harbor Belt Railroad Company.....	11	2	---	---	2	---	---	---	15
Indiana Hi-Rail Corporation.....	---	---	---	---	2	---	---	---	2
Indiana Rail Road Company.....	---	1	---	---	4	---	---	---	5
Iowa Interstate Railroad.....	1	4	---	---	4	---	---	---	9
Iowa Northern Railway Company.....	---	4	---	---	4	---	---	---	8
Kansas City Southern Railway Company.....	4	20	---	---	27	---	---	---	51
Long Island Rail Road.....	15	---	---	---	---	---	---	---	15
Louisiana & Arkansas Railway Company.....	---	24	---	---	23	---	---	---	47
Louisiana & Delta Railroad.....	---	2	---	---	3	---	---	---	5
Maryland And Pennsylvania Railroad Company	2	1	---	---	---	---	---	---	3
Metro North Commuter Railroad Company.....	1	10	---	---	---	---	---	---	11
Mid South Rail Corporation.....	---	18	---	---	14	---	---	2	34
Mid-Atlantic Railroad Company, Incorp....	---	3	---	---	---	---	---	---	4
Mid-Michigan Railroad Company.....	---	2	---	---	1	---	1	---	4
Mississippi Export Railroad Company.....	---	2	---	---	2	---	---	---	4
Missouri-Kansas-Texas Railroad Company....	16	24	---	1	39	---	---	---	80
Montana Rail Link.....	2	2	---	---	3	---	---	---	7
Nashville & Eastern Railroad.....	---	4	---	---	1	---	---	---	5
New Jersey Transit Rail Operations.....	7	1	---	---	---	---	---	---	8
New York, Susquehanna And Western RR.....	2	4	1	1	---	---	---	---	8
Norfolk And Portsmouth Belt Line Railroad..	---	2	---	1	2	---	---	---	5
Norfolk And Western Railway Company.....	87	122	1	3	141	3	---	---	357
North Carolina & Virginia Railroad Co....	---	---	---	---	3	---	---	---	3
Northeast Illinois Regional Commuter Rail.	21	2	---	---	1	---	---	---	24
Oklahoma Kansas & Texas Railroad Company..	---	5	---	1	7	---	---	---	13
Paducah & Louisville Railway Company.....	---	1	---	---	4	---	---	---	5
Port Terminal Railroad Association.....	3	2	---	---	1	---	---	---	6
Soo Line Railroad Company.....	15	38	3	2	45	1	---	1	105
South Carolina Central Railroad Co., Inc..	---	1	1	---	7	---	---	---	9
Southeastern Pennsylvania Transportation...	2	1	---	---	---	---	---	---	3
Southern Pacific Transportation Company...	90	64	22	10	121	8	---	---	315
Southern Railway Companies.....	61	143	3	12	301	4	---	15	539
Southrail Corporation.....	---	3	1	---	14	---	---	---	18
Springfield Terminal Railway Company.....	---	4	---	2	5	1	---	---	12
St. Louis Southwestern Railway Company....	12	32	2	1	51	---	---	---	98
Terminal RR Association Of St. Louis.....	1	3	---	---	2	---	---	---	6
Texas Mexican Railway Company.....	---	5	---	---	6	---	---	---	11
Union Pacific Railroad Company.....	105	159	10	13	322	12	2	9	632
Washington Central Railroad Company.....	---	4	---	---	5	---	---	1	10
Winchester And Western Railroad Company...	---	1	---	---	2	---	---	---	3
Wisconsin And Southern Railway Company....	---	1	---	---	1	---	---	---	3
Wisconsin Central Ltd.....	9	34	2	4	43	---	---	1	93
All Other Railroads.....	7	41	3	5	50	1	2	4	113
Total.....	1,157	1,705	129	101	2,610	52	14	54	5,822

Note: "Special" are crossings protected by watchmen or members of train crew.

The totals on this table are slightly higher than those shown on other tables. The reporting rules require that when an Amtrak train is being operated by a crew of another railroad, both Amtrak and the operating carrier must make a report of an accident/incident. In all other tables these accidents/incidents are only counted once.

**TABLE 7A. ACCIDENTS/INCIDENTS AND CASUALTIES BY RAILROAD**

Railroad	Motor Vehicle			Other Highway Users			Total		
	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured
Alaska Railroad Corporation.....	10	1	---	---	---	---	10	1	---
Amtrak(National Railroad Passenger Corp.)	172	34	54	14	5	3	186	39	57
Arkansas And Missouri Railroad Company...	8	---	2	---	---	---	8	---	2
Atchison, Topeka And Santa Fe Railway Co..	254	27	100	16	8	5	270	35	105
Atlanta & Saint Andrews Bay Railway Co....	4	---	2	---	---	---	4	---	2
Bangor And Aroostook Railroad.....	5	---	---	---	---	---	5	---	---
Buffalo & Pittsburgh Railroad, Incorporate	3	---	4	---	---	---	3	---	4
Burlington Northern Railroad Company.....	541	77	207	23	6	7	564	83	214
Cedar Rapids And Iowa City Railway Company	3	---	---	---	---	---	3	---	---
Cedar Valley Railroad.....	4	---	---	---	---	---	4	---	---
Central Michigan Railway Company.....	19	5	11	---	---	---	19	5	11
Chicago & North Western Transportation Co.	207	13	100	14	6	5	221	19	105
Chicago Missouri & Western Railway.....	22	2	7	---	---	---	22	2	7
Chicago South Shore And South Bend RR.....	7	---	---	---	---	---	7	---	---
Chicago, Central & Pacific Railroad Co....	28	1	8	2	1	---	30	2	8
Columbus And Greenville Railway Company...	3	---	3	---	---	---	3	---	3
Consolidated Rail Corporation.....	559	49	181	11	3	3	570	52	184
CSX Transportation.....	884	75	355	12	5	5	896	80	360
Dakota Railroad.....	3	---	3	---	---	---	3	---	3
Dakota, Minnesota & Eastern Railroad.....	24	---	7	2	---	1	26	---	8
Delaware And Hudson Railroad Company.....	4	---	---	1	---	1	5	---	1
Denver And Rio Grande Western Railroad Co.	23	2	3	2	---	---	25	2	3
Des Moines Union Railway Company.....	5	---	---	---	---	---	5	---	---
Detroit And Mackinac Railway Company.....	4	1	1	---	---	---	4	1	1
Eastern Shore Railroad Incorporated.....	4	---	1	---	---	---	4	---	1
Elgin, Joliet And Eastern Railway Company.	10	2	6	---	---	---	10	2	6
Escanaba And Lake Superior Railroad Co....	9	---	3	1	---	---	10	---	3
Florida Central Railroad.....	3	---	---	---	---	---	3	---	---
Florida East Coast Railway Company.....	62	10	25	5	---	3	67	10	28
Galveston Railway Incorporated.....	3	---	---	---	---	---	3	---	---
Grainbelt Corporation.....	4	---	1	---	---	---	4	---	1
Grand Trunk Western Railroad Company.....	57	8	28	5	2	1	62	10	29
Green Bay And Western Railroad Company...	12	1	2	1	---	---	13	1	2
Gulf And Mississippi Railroad Corporation.	12	---	3	---	---	---	12	---	3
Houston Belt & Terminal Railway Company...	10	1	3	---	---	---	10	1	3
Illinois Central Railroad Company.....	130	10	93	4	---	1	134	10	94
Indiana & Ohio Central Railroad, Inc.....	3	---	1	1	---	---	4	---	1
Indiana Harbor Belt Railroad Company.....	15	1	3	---	---	---	15	1	3
Indiana Hi-Rail Corporation.....	2	---	---	---	---	---	2	---	---
Indiana Rail Road Company.....	5	---	---	---	---	---	5	---	---
Iowa Interstate Railroad.....	9	---	2	---	---	---	9	---	2
Iowa Northern Railway Company.....	8	1	1	---	---	---	8	1	1
Kansas City Southern Railway Company.....	51	2	20	3	---	---	54	2	20
Long Island Rail Road.....	15	---	11	5	4	1	20	4	12
Louisiana & Arkansas Railway Company.....	47	1	25	---	---	---	47	1	25
Louisiana & Delta Railroad.....	5	---	1	---	---	---	5	---	1
Louisiana & Pennsylvania Railroad Company	3	---	---	---	---	---	3	---	---
Maryland And Pennsylvania Railroad Company	11	---	---	---	---	---	11	---	---
Metro North Commuter Railroad Company.....	36	1	12	2	---	1	36	1	13
Mid South Rail Corporation.....	3	---	2	---	---	---	3	---	2
Mid-Atlantic Railroad Company, Incorp....	4	---	---	---	---	---	4	---	---
Mid-Michigan Railroad Company.....	4	---	---	---	---	---	4	---	---
Mississippi Export Railroad Company.....	4	---	---	---	---	---	4	---	---
Missouri-Kansas-Texas Railroad Company...	80	2	23	4	---	3	84	2	26
Montana Rail Link.....	7	---	---	---	---	---	7	---	---
Nashville & Eastern Railroad.....	5	---	1	---	---	---	5	---	1
New Jersey Transit Rail Operations.....	8	2	5	6	4	1	14	6	6
New York, Susquehanna And Western RR.....	8	---	6	---	---	---	8	---	6
Norfolk And Portsmouth Belt Line Railroad.	5	2	2	---	---	---	5	2	2
Norfolk And Western Railway Company.....	357	33	154	15	6	7	372	39	161
North Carolina & Virginia Railroad Co....	3	---	---	---	---	---	3	---	---
Northeast Illinois Regional Commuter Rail.	24	4	26	2	---	2	26	4	28
Oklahoma Kansas & Texas Railroad Company..	13	---	2	---	---	---	13	---	2
Paducah & Louisville Railway Company.....	5	---	---	---	---	---	5	---	---
Port Terminal Railroad Association.....	6	1	1	---	---	---	6	1	1
Seo Line Railroad Company.....	105	11	52	8	1	2	113	12	54
South Carolina Central Railroad Co., Inc..	9	2	2	1	---	1	10	2	3
Southeastern Pennsylvania Transportation..	3	---	---	---	---	---	3	---	---
Southern Pacific Transportation Company...	315	49	107	7	2	3	322	51	110
Southern Railway Companies.....	539	59	212	4	1	3	543	60	215
Southrail Corporation.....	18	---	2	---	---	---	18	---	2
Springfield Terminal Railway Company.....	12	---	3	2	---	4	14	---	7
St. Louis Southwestern Railway Company....	98	18	26	5	3	---	103	21	26
Terminal RR Association Of St. Louis.....	6	---	1	---	---	---	6	---	1
Texas Mexican Railway Company.....	11	1	7	1	---	1	12	1	8
Union Pacific Railroad Company.....	632	76	304	22	1	8	654	77	312
Washington Central Railroad Company.....	10	1	2	---	---	---	10	1	2
Winchester And Western Railroad Company..	3	---	---	---	---	---	3	---	---
Wisconsin And Southern Railway Company....	3	---	1	---	---	---	3	---	1
Wisconsin Central Ltd.....	93	5	45	2	---	---	95	5	45
All Other Railroads.....	113	3	67	2	---	1	115	3	68
<b>Total.....</b>	<b>5,822</b>	<b>594</b>	<b>2,344</b>	<b>205</b>	<b>58</b>	<b>73</b>	<b>6,027</b>	<b>652</b>	<b>2,417</b>

Note: A/I totals on this table are slightly higher than those shown on other tables. The reporting rules require that when an Amtrak train is being operated by a crew of another railroad, both Amtrak and the operating carrier must make a report of an accident/incident. In all other tables these accidents/incidents are only counted once.

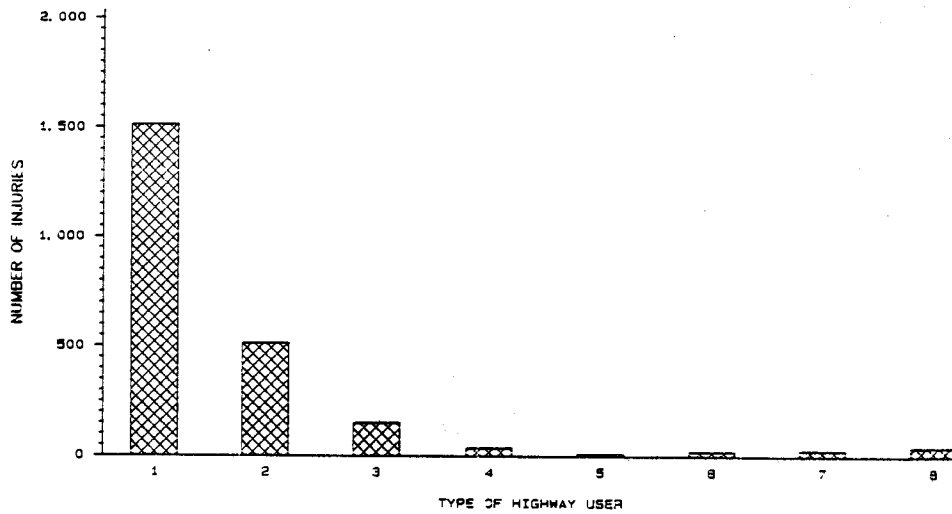
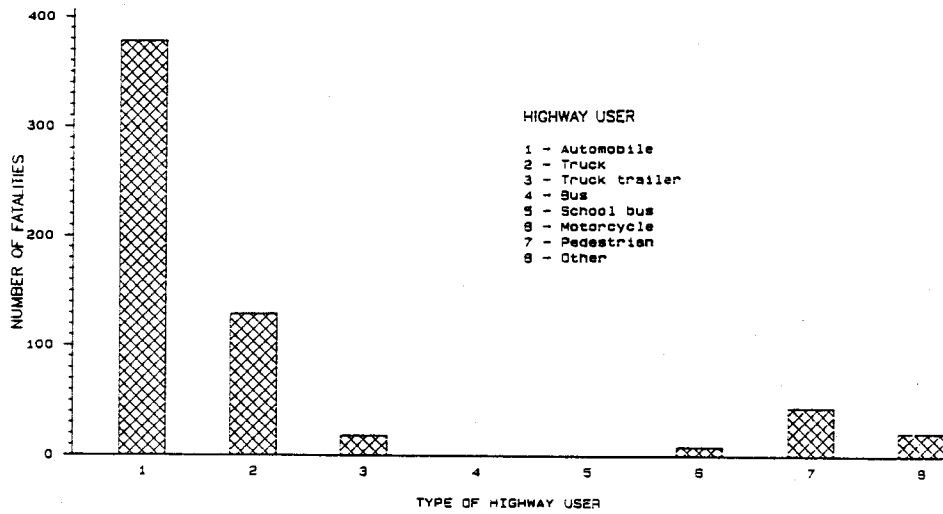
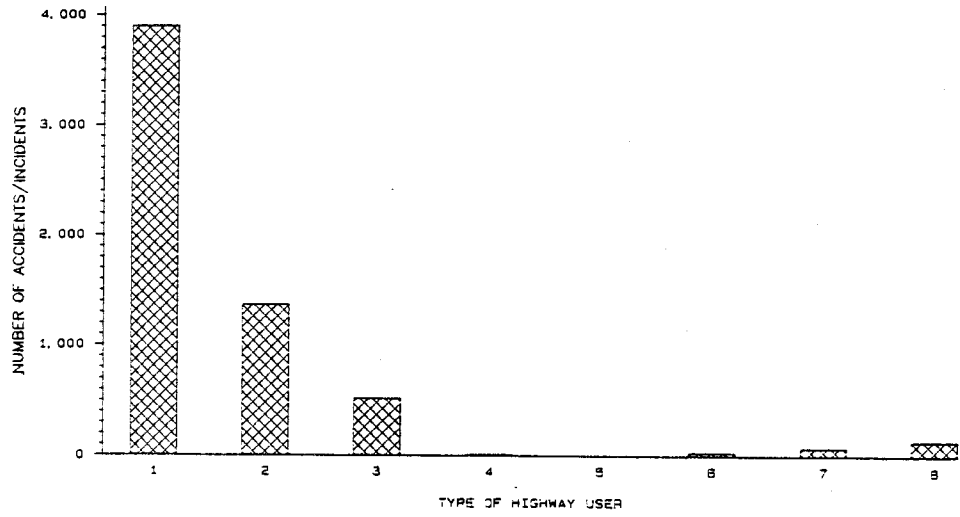
**TABLE 8. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY STATE AND WARNING DEVICE CATEGORY**

**WARNING DEVICE CATEGORY**

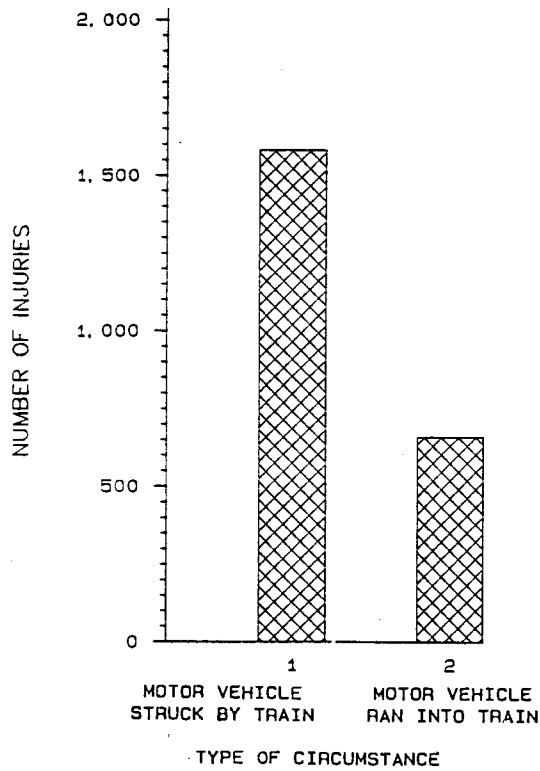
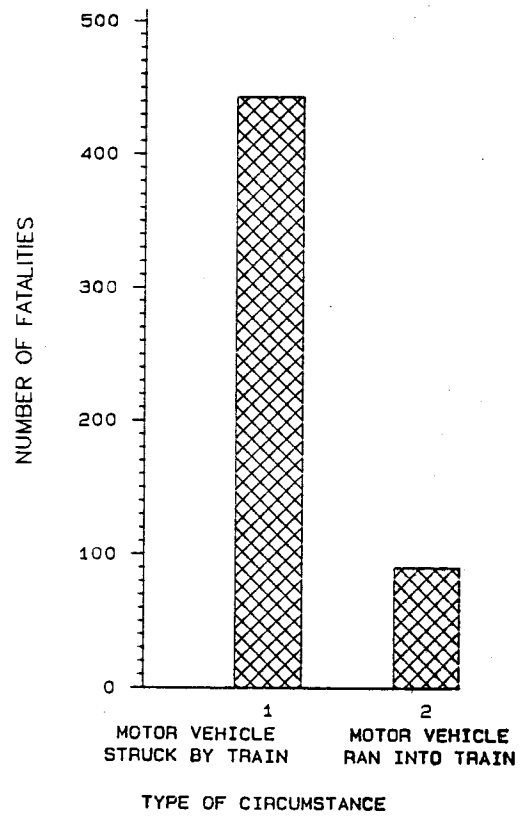
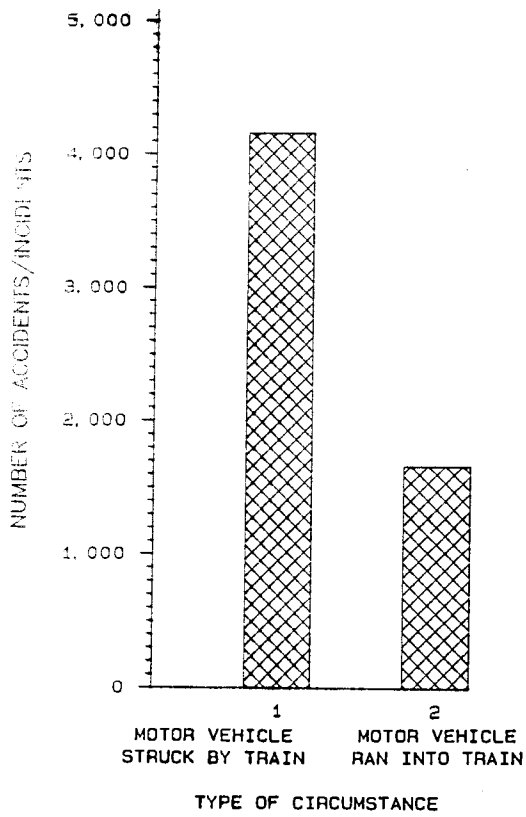
State	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alabama.....	13	57	11	7	135	4	---	3	230
Alaska.....	---	7	---	---	2	1	---	---	10
Arizona.....	11	4	---	1	6	---	---	---	22
Arkansas.....	12	44	2	2	82	---	---	3	145
California.....	117	46	12	3	57	9	---	---	244
Colorado.....	10	17	1	1	42	---	---	---	71
Connecticut.....	2	13	---	---	2	1	---	---	18
Delaware.....	4	7	---	---	2	---	---	---	13
Dist. of Columbia	---	---	---	---	---	---	---	---	---
Florida.....	125	38	3	3	44	---	---	---	213
Georgia.....	42	41	4	6	116	2	---	3	214
Idaho.....	4	7	---	---	33	2	---	---	46
Illinois.....	146	132	1	1	91	3	1	2	377
Indiana.....	88	117	11	5	122	1	---	---	344
Iowa.....	14	44	2	5	80	2	---	---	147
Kansas.....	14	26	---	1	71	1	---	---	113
Kentucky.....	10	44	6	2	30	---	---	1	93
Louisiana.....	24	93	9	5	128	2	2	5	268
Maine.....	1	7	---	1	5	---	---	---	14
Maryland.....	4	8	2	2	10	1	1	1	29
Massachusetts.....	6	10	---	1	1	---	1	---	19
Michigan.....	41	73	5	1	88	3	1	1	213
Minnesota.....	15	38	3	1	86	---	1	---	144
Mississippi.....	6	54	4	3	88	---	---	1	156
Missouri.....	23	51	---	3	70	---	---	1	148
Montana.....	7	4	---	---	8	---	---	---	19
Nebraska.....	17	8	---	1	49	---	1	1	77
Nevada.....	2	---	---	---	1	---	---	---	3
New Hampshire.....	---	---	---	---	1	---	---	---	1
New Jersey.....	18	24	2	4	7	---	---	---	55
New Mexico.....	1	4	---	1	9	1	---	---	16
New York.....	29	13	3	5	24	---	---	---	74
North Carolina...	36	42	3	1	126	---	---	5	213
North Dakota.....	2	5	---	---	17	---	---	---	24
Ohio.....	69	99	4	4	195	2	1	2	376
Oklahoma.....	11	68	1	4	78	---	---	---	162
Oregon.....	6	2	4	1	24	5	---	---	42
Pennsylvania.....	20	32	2	3	50	2	1	5	115
Rhode Island.....	---	---	---	---	---	---	---	---	---
South Carolina...	8	40	2	1	72	---	---	2	125
South Dakota.....	---	7	---	---	12	---	---	---	19
Tennessee.....	16	41	8	5	73	3	---	3	149
Texas.....	100	186	9	6	274	4	2	8	589
Utah.....	4	7	---	1	13	1	---	---	26
Vermont.....	---	1	---	---	---	---	1	---	2
Virginia.....	31	31	1	4	41	1	---	---	110
Washington.....	20	17	1	2	47	---	---	4	91
West Virginia....	10	16	2	---	8	---	---	---	36
Wisconsin.....	15	77	11	4	86	1	---	3	197
Wyoming.....	3	2	---	---	3	---	---	---	8
Unknown.....	---	---	---	---	---	---	---	---	---
<b>Total.....</b>	<b>1,157</b>	<b>1,704</b>	<b>129</b>	<b>101</b>	<b>2,609</b>	<b>52</b>	<b>14</b>	<b>54</b>	<b>5,820</b>

Note: "Special" are crossings protected by watchmen or members of train crew

# HIGHWAY USER AND VEHICLE DATA



**FIGURE 3. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS BY TYPE OF HIGHWAY USER**



**FIGURE 4. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY CIRCUMSTANCE**



**TABLE 9. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS BY TYPE OF HIGHWAY USER**

Type Of Vehicle	----Acc/Inc----		-----Killed-----		-----Injured-----		Fatal Acc/Inc	Injury Acc/Inc
	No.	%	No.	%	No.	%		
Automobile.....	3,899	64.71	423	64.88	1,567	64.83	322	1,092
Truck.....	1,366	22.67	139	21.32	537	22.22	115	394
Truck-trailer....	516	8.56	25	3.83	183	7.57	23	125
Bus.....	10	.17	---	---	15	.62	---	4
School bus.....	1	.02	---	---	25	1.03	---	1
Motorcycle.....	28	.46	7	1.07	17	.70	7	14
Pedestrian.....	72	1.20	41	6.29	34	1.41	40	30
Other.....	133	2.21	17	2.61	39	1.61	16	31
Total.....	6,025	100.00	652	100.00	2,417	100.00	523	1,691

**TABLE 10. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY CIRCUMSTANCE**

Circumstance	----Acc/Inc----		-----Killed-----		-----Injured-----		Fatal Acc/Inc	Injury Acc/Inc
	No.	%	No.	%	No.	%		
Struck by consist	4,160	71.48	487	81.99	1,561	66.60	371	1,071
Ran into consist.	1,660	28.52	107	18.01	783	33.40	96	559
Total.....	5,820	100.00	594	100.00	2,344	100.00	467	1,630

**TABLE 11. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TYPE OF VEHICLE, NUMBER OF OCCUPANTS, CASUALTY RATES, DAMAGE RATES, AND ACCIDENT RATES**

Vehicle	# of A/I	# of Occupants	Occupants Per A/I	Killed	Killed Per A/I	injured	Injured Per A/I	Vehicle Damage	Damage Per A/I
Automobile...	3,899	5,053	1.30	421	.11	1,550	.40	7,520,619	1,929
Truck.....	1,366	1,620	1.19	139	.10	501	.37	4,243,269	3,106
Truck-trailer	516	513	.99	25	.05	104	.20	5,283,954	10,240
Bus.....	10	33	3.30	0	.00	14	1.40	29,100	2,910
School bus...	1	46	46.00	0	.00	25	25.00	5,000	5,000
Motorcycle...	28	30	1.07	7	.25	17	.61	38,050	1,359
<b>Total</b>	<b>5,820</b>	<b>7,295</b>	<b>1.25</b>	<b>592</b>	<b>.10</b>	<b>2,211</b>	<b>.38</b>	<b>17,119,992</b>	<b>2,942</b>

**TABLE 12. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TYPE OF VEHICLE, CIRCUMSTANCE, AND VISIBILITY**

**VISIBILITY**

Type Of Vehicle	Dawn			Day			Dusk			Dark		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
<b>R A I L C O N S I S T S T R U C K H I G H W A Y U S E R</b>												
Automobile.....	79	9	19	1,385	210	525	92	7	37	1,165	131	411
Truck.....	30	5	9	620	80	251	29	3	18	303	23	104
Truck-trailer....	11	1	2	338	15	117	11	---	10	81	2	19
Bus.....	1	---	12	5	---	---	---	---	---	2	---	1
School bus.....	---	---	---	1	---	25	---	---	---	---	---	---
Motorcycle.....	---	---	---	3	1	---	---	---	---	4	---	1
Total.....	121	15	42	2,352	306	918	132	10	65	1,555	156	536
<b>H I G H W A Y U S E R S T R U C K R A I L C O N S I S T</b>												
Automobile.....	39	1	16	481	33	206	38	3	15	620	29	338
Truck.....	20	---	8	188	10	64	9	---	2	167	18	81
Truck-trailer....	6	---	4	51	5	21	2	---	1	16	2	9
Bus.....	1	---	1	1	---	1	---	---	---	---	---	---
School bus.....	---	---	---	---	---	---	---	---	---	---	---	---
Motorcycle.....	1	---	1	8	3	6	---	---	---	12	3	9
Total.....	67	1	30	729	51	298	49	3	18	815	52	437
<b>G R A N D T O T A L</b>												
Automobile.....	118	10	35	1,866	243	731	130	10	52	1,785	160	749
Truck.....	50	5	17	808	90	315	38	3	20	470	41	185
Truck-trailer....	17	1	6	389	20	138	13	---	11	97	4	28
Bus.....	2	---	13	6	---	1	---	---	---	2	---	1
School bus.....	---	---	---	1	---	25	---	---	---	---	---	---
Motorcycle.....	1	---	1	11	4	6	---	---	---	16	3	10
Total.....	188	16	72	3,081	357	1,216	181	13	83	2,370	208	973

**TABLE 13. CASUALTIES AT RAIL-HIGHWAY CROSSINGS BY TYPE OF PERSON INVOLVED, TYPE OF HIGHWAY USER, AND CIRCUMSTANCE**

**TYPE OF PERSON**

Type Of Vehicle	---EOD---		---ENOD---		---PSGR---		---NONT---		---TRES---		---CONT---		-----Total-----		
	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj	A/I
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
Automobile.....	---	13	---	---	---	---	292	812	65	167	---	---	357	992	2,721
Truck.....	---	28	---	---	---	3	86	300	25	51	---	---	111	382	982
Truck-trailer.....	---	58	---	---	---	12	14	72	4	6	---	---	18	148	441
Bus.....	---	1	---	---	---	---	---	12	---	---	---	---	---	13	8
School bus.....	---	---	---	---	---	---	---	25	---	---	---	---	---	25	1
Motorcycle.....	---	---	---	---	---	---	---	1	1	---	---	---	1	1	7
Pedestrian.....	---	2	---	---	---	---	12	8	29	22	---	---	41	32	70
Other.....	---	4	---	---	---	---	13	24	4	6	---	---	17	34	109
Total.....	---	106	---	---	---	15	417	1,254	128	252	---	---	545	1,627	4,339
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
Automobile.....	---	7	---	---	---	---	52	504	14	64	---	---	66	575	1,178
Truck.....	---	10	---	---	---	---	24	132	4	13	---	---	28	155	384
Truck-trailer.....	---	4	---	---	---	4	7	21	---	6	---	---	7	35	75
Bus.....	---	---	---	---	---	---	---	2	---	---	---	---	---	2	2
School bus.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Motorcycle.....	---	---	---	---	---	---	6	14	---	2	---	---	6	16	21
Pedestrian.....	---	---	---	---	---	---	---	---	---	2	---	---	---	2	2
Other.....	---	---	---	---	---	---	---	4	---	1	---	---	---	5	24
Total.....	---	21	---	---	---	4	89	677	18	88	---	---	107	790	1,686
<b>GRAND TOTAL</b>															
Automobile.....	---	20	---	---	---	---	344	1,316	79	231	---	---	423	1,567	3,899
Truck.....	---	38	---	---	---	3	110	432	29	64	---	---	139	537	1,366
Truck-trailer.....	---	62	---	---	---	16	21	93	4	12	---	---	25	183	516
Bus.....	---	1	---	---	---	---	---	14	---	---	---	---	---	15	10
School bus.....	---	---	---	---	---	---	---	25	---	---	---	---	---	25	1
Motorcycle.....	---	---	---	---	---	---	6	15	1	2	---	---	7	17	28
Pedestrian.....	---	2	---	---	---	---	12	8	29	24	---	---	41	34	72
Other.....	---	4	---	---	---	---	13	28	4	7	---	---	17	39	133
Total.....	---	127	---	---	---	19	506	1,931	146	340	---	---	652	2,417	6,025

Note: EOD = Employee on duty      ENOD = Employee not on duty  
 PSGR = Passenger on train      NONT = Nontrespasser  
 TRES = Trespasser              CONT = Contractor employee

**TABLE 14. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY SPEED OF VEHICLE, CIRCUMSTANCE, AND VISIBILITY**

**VISIBILITY**

Speed Of Vehicle	-----Dawn-----			-----Day-----			-----Dusk-----			-----Dark-----			-----Total-----		
	A/I	Kld	Ini	A/I	Kld	Ini	A/I	Kld	Ini	A/I	Kld	Ini	A/I	Kld	Ini
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
Standing.....	47	4	6	763	44	180	38	---	14	563	12	54	1,411	60	254
1-9.....	19	3	8	525	56	220	25	3	15	243	19	77	812	81	320
10-19.....	25	2	19	433	53	223	30	2	18	274	25	146	762	82	406
20-29.....	9	---	3	246	50	132	14	1	9	212	23	129	481	74	273
30-39.....	6	1	2	157	41	76	9	---	3	110	30	63	282	72	144
40-49.....	3	3	1	69	19	27	7	2	5	42	18	24	121	42	57
50-59.....	1	---	---	32	18	11	1	---	---	19	6	6	53	24	17
60 and over.....	1	---	1	9	2	5	---	---	---	4	2	4	14	4	10
Unknown.....	10	2	2	118	23	44	8	2	1	88	21	33	224	48	80
Total.....	121	15	42	2,352	306	918	132	10	65	1,555	156	536	4,160	487	1,561
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
Standing.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-9.....	13	---	1	161	4	44	8	---	5	167	2	43	349	6	93
10-19.....	13	1	6	152	5	41	5	---	1	179	7	82	349	13	130
20-29.....	11	---	6	125	4	60	11	3	3	144	2	78	291	9	147
30-39.....	12	---	8	94	11	38	10	---	7	115	10	73	231	21	126
40-49.....	3	---	1	57	11	40	3	---	1	52	8	53	115	19	95
50-59.....	2	---	2	55	9	38	2	---	---	29	8	23	88	17	63
60 and over.....	3	---	2	11	1	9	---	---	---	18	9	18	32	10	29
Unknown.....	10	---	4	74	6	28	10	---	1	111	6	67	205	12	100
Total.....	67	1	30	729	51	298	49	3	18	815	52	437	1,660	107	783
<b>GRAND TOTAL</b>															
Standing.....	47	4	6	763	44	180	38	---	14	563	12	54	1,411	60	254
1-9.....	32	3	9	686	60	264	33	3	20	410	21	120	1,161	87	413
10-19.....	38	3	25	585	58	264	35	2	19	453	32	228	1,111	95	536
20-29.....	20	---	9	371	54	192	25	4	12	356	25	207	772	83	420
30-39.....	18	1	10	251	52	114	19	---	10	225	40	136	513	93	270
40-49.....	6	3	2	126	30	67	10	2	6	94	26	77	236	61	152
50-59.....	3	---	2	87	27	49	3	---	---	48	14	29	141	41	80
60 and over.....	4	---	3	20	3	14	---	---	---	22	11	22	46	14	39
Unknown.....	20	2	6	192	29	72	18	2	2	199	27	100	429	60	180
Total.....	188	16	72	3,081	357	1,216	181	13	83	2,370	208	973	5,820	594	2,344

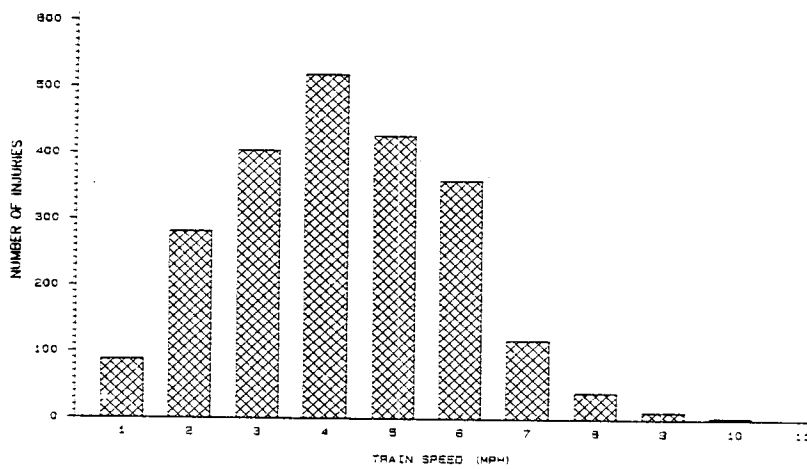
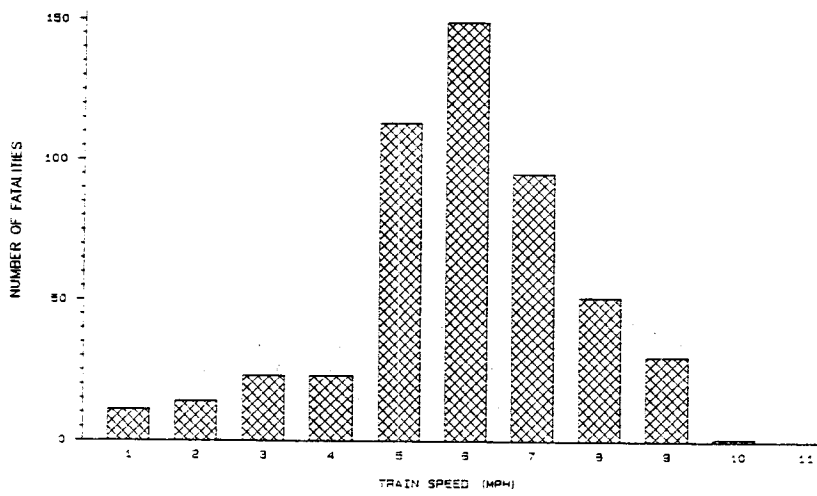
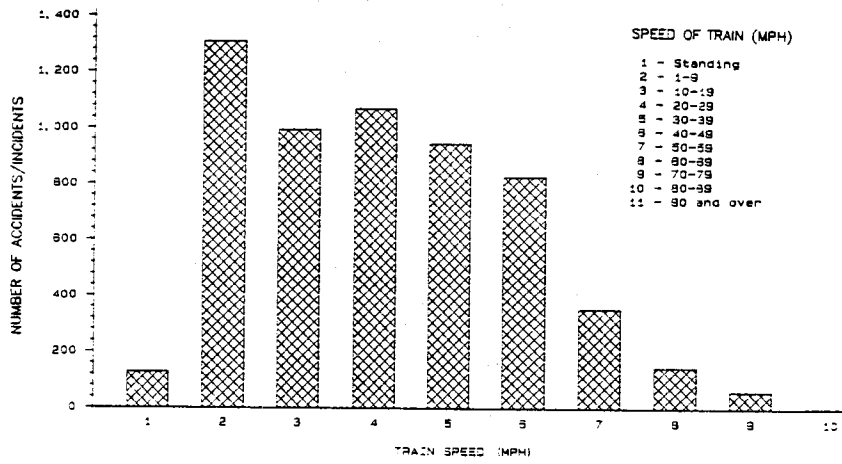
**TABLE 15. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY POSITION AND TYPE OF VEHICLE**

Vehicle	-----Position On Crossing-----								
	--Stalled On--			--Stopped On--			--Moving Over--		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Automobile.....	417	7	37	579	37	144	2,903	379	1,386
Truck.....	124	4	15	168	11	36	1,074	124	486
Truck-trailer....	48	---	4	68	1	17	400	24	162
Bus.....	1	---	---	4	---	1	5	---	14
School bus.....	---	---	---	---	---	---	1	---	25
Motorcycle.....	1	---	---	1	---	---	26	7	17
<b>Total.....</b>	<b>591</b>	<b>11</b>	<b>56</b>	<b>820</b>	<b>49</b>	<b>198</b>	<b>4,409</b>	<b>534</b>	<b>2,090</b>

**TRAIN AND TRACK DATA**

**TABLE 16. ACCIDENT/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY SPEED OF TRAIN, CIRCUMSTANCE, AND VISIBILITY**

Speed Of Consist	---Dawn---			---Day---			---Dusk---			---Dark---			---Total---		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
Standing.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-9.....	17	---	1	444	2	52	16	---	4	330	2	57	807	4	114
10-19.....	26	1	19	372	3	113	20	---	12	261	6	85	679	10	229
20-29.....	27	---	8	419	26	219	22	---	7	294	20	147	762	46	381
30-39.....	17	6	5	430	50	203	30	4	10	268	42	131	745	102	349
40-49.....	16	3	6	403	127	181	27	3	16	236	44	74	682	177	277
50-59.....	13	4	3	169	54	93	11	2	14	111	24	29	304	84	139
60-69.....	4	---	---	81	31	48	6	1	2	36	14	8	127	46	58
70-79.....	1	1	---	32	12	9	---	---	---	17	3	5	50	16	14
80-89.....	---	---	---	1	1	---	---	---	---	1	---	---	2	1	---
90 and over.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Unknown.....	---	---	---	1	---	---	---	---	---	1	1	---	2	1	---
Total.....	121	15	42	2,352	306	918	132	10	65	1,555	156	536	4,160	487	1,561
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
Standing.....	5	---	2	14	---	5	3	---	1	106	6	73	128	6	81
1-9.....	12	---	7	196	2	48	18	---	4	273	15	119	499	17	178
10-19.....	15	---	6	126	3	43	8	---	4	164	5	81	313	8	134
20-29.....	11	---	2	158	9	85	6	---	4	130	5	77	305	14	168
30-39.....	11	1	7	95	8	48	6	---	2	85	4	54	197	13	111
40-49.....	6	---	4	87	19	47	5	---	2	44	8	24	142	27	77
50-59.....	3	---	2	32	5	10	1	---	---	12	8	8	48	13	20
60-69.....	4	---	---	13	2	10	---	---	---	1	1	1	18	3	11
70-79.....	---	---	---	8	3	2	2	3	1	---	---	---	10	6	3
80-89.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
90 and over.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Unknown.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total.....	67	1	30	729	51	298	49	3	18	815	52	437	1,660	107	783
<b>GRAND TOTAL</b>															
Standing.....	5	---	2	14	---	5	3	---	1	106	6	73	128	6	81
1-9.....	29	---	8	640	4	100	34	---	8	603	17	176	1,306	21	292
10-19.....	41	1	25	498	6	156	28	---	16	425	11	166	992	18	363
20-29.....	38	---	10	577	35	304	28	---	11	424	25	224	1,067	60	549
30-39.....	28	7	12	525	58	251	36	4	12	353	46	185	942	115	460
40-49.....	22	3	10	490	146	228	32	3	18	280	52	98	824	204	354
50-59.....	16	4	5	201	59	103	12	2	14	123	32	37	352	97	159
60-69.....	8	---	---	94	33	58	6	1	2	37	15	9	145	49	69
70-79.....	1	1	---	40	15	11	2	3	1	17	3	5	60	22	17
80-89.....	---	---	---	1	1	---	---	---	---	1	---	---	2	1	---
90 and over.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Unknown.....	---	---	---	1	---	---	---	---	---	1	1	---	2	1	---
Total.....	188	16	72	3,081	357	1,216	181	13	83	2,370	208	973	5,820	594	2,344



**FIGURE 5. ACCIDENTS/ INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY SPEED OF TRAIN**



**TABLE 17. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY RAILROAD EQUIPMENT INVOLVED, PART OF TRAIN STRUCK, CIRCUMSTANCE, AND VISIBILITY**

**CIRCUMSTANCE**

Type Consist	Consist Struck Vehicle	Vehicle Struck Consist	Lead Unit	Part Of Consist Struck					Visibility			
				1	2	3	4	Unknown	Dawn	Day	Dusk	Dark
Train (Units Pulling)	3,553	1,237	842	181	73	50	63	28	163	2,600	149	1,878
Train (Units Pushing)	231	136	74	13	15	13	20	1	10	148	10	199
Train (Standing)	---	111	23	27	25	14	17	5	5	6	3	97
Cars (Moving)	78	45	42	---	2	---	1	---	1	111	2	9
Cars (Standing)	---	8	6	---	---	---	2	---	---	6	---	2
Light Locos (Moving)	295	113	104	---	---	1	8	---	9	205	17	177
Light Locos (Standing)	---	9	6	---	---	---	3	---	---	2	---	7
Other	3	1	1	---	---	---	---	---	---	3	---	1
<b>Total</b>	<b>4,160</b>	<b>1,660</b>	<b>1,098</b>	<b>221</b>	<b>115</b>	<b>78</b>	<b>114</b>	<b>34</b>	<b>188</b>	<b>3,081</b>	<b>181</b>	<b>2,370</b>

Note: The "Lead" unit is the first unit to occupy the crossing.

**TABLE 18. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TRAIN SPEED AND TYPE OF TRAIN**

Speed Of Consist	Freight			Passenger			Yard Switching			Other			Total		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Standing	86	3	57	---	---	---	24	2	15	18	1	9	128	6	81
1-9	612	10	129	14	---	15	420	9	87	260	2	61	1,306	21	292
10-19	691	14	230	34	1	13	109	1	51	158	2	69	992	18	363
20-29	926	54	468	24	2	3	34	1	16	83	3	62	1,067	60	549
30-39	845	103	421	30	4	8	10	---	3	57	8	28	942	115	460
40-49	755	191	327	47	9	18	2	1	1	20	3	8	824	204	354
50-59	302	88	126	37	5	24	1	---	2	12	4	7	352	97	159
60-69	104	39	42	39	10	25	---	---	---	2	---	2	145	49	69
70-79	11	4	4	49	18	13	---	---	---	---	---	---	60	22	17
80-89	---	---	---	2	1	---	---	---	---	---	---	---	2	1	---
90 and over	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Unknown	2	1	---	---	---	---	---	---	---	---	---	---	2	1	---
<b>Total</b>	<b>4,334</b>	<b>507</b>	<b>1,804</b>	<b>276</b>	<b>50</b>	<b>119</b>	<b>600</b>	<b>14</b>	<b>175</b>	<b>610</b>	<b>23</b>	<b>246</b>	<b>5,820</b>	<b>594</b>	<b>2,344</b>

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

**TABLE 19. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY NUMBER OF CARS IN TRAIN AND TYPE OF TRAIN**

Number Of Cars	---Freight---			---Passenger---			-Yard Switching			-----Other-----			-----Total-----		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
1-9.....	661	57	269	166	25	86	323	7	92	155	---	52	1,305	89	499
10-19.....	492	62	175	97	20	26	131	4	42	13	---	3	733	86	246
20-29.....	360	34	138	2	3	---	54	---	23	6	---	2	422	37	163
30-39.....	323	36	138	1	---	---	23	---	6	5	---	1	352	36	145
40-49.....	305	42	135	---	---	---	17	1	2	4	---	3	326	43	140
50-59.....	286	50	131	1	---	---	18	---	5	3	---	1	308	50	137
60-69.....	308	38	131	1	---	3	15	1	4	3	---	---	327	39	138
70-79.....	307	48	130	---	---	---	3	---	---	1	---	---	311	48	130
80-89.....	244	36	115	---	---	---	2	---	---	---	---	---	246	36	115
90-99.....	287	30	109	---	---	---	2	---	---	1	---	1	290	30	110
100-109.....	225	26	99	1	---	---	1	---	---	5	---	2	232	26	101
110-119.....	265	29	109	---	---	---	---	---	---	---	---	---	265	29	109
120-129.....	104	9	53	1	---	---	2	1	1	---	---	---	107	10	54
130-139.....	58	6	25	---	---	---	---	---	---	---	---	---	58	6	25
140-149.....	31	1	17	---	---	---	1	---	---	---	---	---	32	1	17
150 And over.....	51	3	27	---	---	---	---	---	---	---	---	---	51	3	27
Locomotives only.	27	---	3	6	2	4	8	---	---	414	23	181	455	25	188
Total.....	4,334	507	1,804	276	50	119	600	14	175	610	23	246	5,820	594	2,344

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

**TABLE 20. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY WARNING DEVICE CATEGORY AND MOTORIST ACTION**

**VISIBILITY**

Number Of Cars	Dawn			Day			Dusk			Dark			Total		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
1-9.....	20	---	21	560	52	197	25	2	22	247	13	76	852	67	316
10-19.....	6	---	1	325	58	108	16	---	7	186	18	49	533	76	165
20-29.....	10	3	4	183	15	60	11	2	1	196	12	34	310	32	99
30-39.....	14	1	---	123	18	38	6	1	1	97	11	52	240	31	91
40-49.....	7	---	3	129	23	67	6	---	2	91	12	27	233	35	99
50-59.....	7	2	---	106	23	41	8	---	1	100	19	38	221	44	80
60-69.....	9	3	3	131	25	56	7	---	3	109	7	38	256	35	100
70-79.....	14	1	2	114	27	53	12	3	6	88	12	25	228	43	86
80-89.....	2	1	---	89	12	42	7	---	6	75	8	36	173	21	84
90-99.....	7	2	2	122	16	42	4	---	1	89	9	25	222	27	70
100-109.....	5	---	1	97	9	48	5	---	2	79	13	23	186	22	74
110-119.....	5	---	1	118	13	57	7	1	1	78	7	24	208	21	83
120-129.....	5	---	3	39	4	15	1	---	3	30	1	13	75	5	34
130-139.....	5	1	---	21	2	13	3	---	1	15	2	6	44	5	20
140-149.....	---	---	---	7	1	2	---	---	---	15	---	6	22	1	8
150 And over.....	---	---	---	11	1	5	---	---	---	17	---	7	28	1	8
Locomotives only.....	5	1	1	177	7	74	14	1	8	133	12	57	329	21	140
<b>Total.....</b>	<b>121</b>	<b>15</b>	<b>42</b>	<b>2,352</b>	<b>306</b>	<b>918</b>	<b>132</b>	<b>10</b>	<b>65</b>	<b>1,555</b>	<b>156</b>	<b>536</b>	<b>4,160</b>	<b>487</b>	<b>1,561</b>
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
1-9.....	10	---	5	265	10	109	18	3	7	160	9	62	453	22	183
10-19.....	6	---	1	92	6	33	5	---	1	97	4	46	200	10	81
20-29.....	5	---	1	53	5	30	3	---	2	51	---	31	112	5	64
30-39.....	5	---	2	41	4	16	4	---	1	62	1	35	112	5	54
40-49.....	4	---	1	34	2	11	2	---	1	53	6	28	93	8	41
50-59.....	7	---	2	35	3	26	4	---	2	41	3	27	87	6	57
60-69.....	6	---	3	17	1	5	3	---	1	45	3	29	71	4	38
70-79.....	5	---	3	28	4	9	1	---	---	49	1	32	83	5	44
80-89.....	2	---	---	22	3	6	1	---	---	48	12	25	73	15	31
90-99.....	4	1	2	24	---	13	1	---	1	39	2	24	68	3	40
100-109.....	2	---	3	15	4	5	1	---	---	28	---	19	46	4	27
110-119.....	2	---	2	26	5	14	---	---	---	29	3	10	57	8	26
120-129.....	3	---	---	11	1	6	---	---	---	18	4	14	32	5	20
130-139.....	---	---	---	5	1	1	---	---	---	9	---	4	14	1	5
140-149.....	1	---	1	1	---	1	---	---	---	8	---	7	10	---	9
150 And over.....	---	---	---	5	1	4	1	---	1	17	1	10	23	2	15
Locomotives only.....	5	---	4	55	1	9	5	---	1	61	3	34	126	4	48
<b>Total.....</b>	<b>67</b>	<b>1</b>	<b>30</b>	<b>729</b>	<b>51</b>	<b>298</b>	<b>49</b>	<b>3</b>	<b>18</b>	<b>815</b>	<b>52</b>	<b>437</b>	<b>1,660</b>	<b>107</b>	<b>783</b>
<b>GRAND TOTAL</b>															
1-9.....	30	---	26	825	62	306	43	5	29	407	22	138	1,305	89	499
10-19.....	12	---	2	417	64	141	21	---	8	283	22	95	733	86	246
20-29.....	15	3	5	236	20	90	14	2	3	157	12	65	422	37	163
30-39.....	19	1	2	164	22	54	10	1	2	159	12	87	352	36	145
40-49.....	11	---	4	163	25	78	8	---	3	144	18	55	326	43	140
50-59.....	14	2	2	141	26	67	12	---	3	141	22	65	308	50	137
60-69.....	15	3	6	148	26	61	10	---	4	154	10	67	327	39	138
70-79.....	19	1	5	142	31	62	13	3	6	137	13	57	311	48	130
80-89.....	4	1	---	111	15	48	8	---	6	123	20	61	246	36	115
90-99.....	11	3	4	146	16	55	5	---	2	128	11	49	290	30	110
100-109.....	7	---	4	112	13	53	6	---	2	107	13	42	232	26	101
110-119.....	7	---	3	144	18	71	7	1	1	107	10	34	265	29	109
120-129.....	8	---	3	50	5	21	1	---	3	48	5	27	107	10	54
130-139.....	5	1	---	26	3	14	3	---	1	24	2	10	58	6	25
140-149.....	1	---	1	8	1	3	---	---	---	23	---	13	32	1	17
150 And over.....	---	---	---	16	2	9	1	---	1	34	1	17	51	3	27
Locomotives only.....	10	1	5	232	8	83	19	1	9	194	15	91	455	25	188
<b>Total.....</b>	<b>188</b>	<b>16</b>	<b>72</b>	<b>3,081</b>	<b>357</b>	<b>1,216</b>	<b>181</b>	<b>13</b>	<b>83</b>	<b>2,370</b>	<b>208</b>	<b>973</b>	<b>5,820</b>	<b>594</b>	<b>2,344</b>

**TABLE 21. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TRACK TYPE AND TRACK CLASS**

**TRACK TYPE**

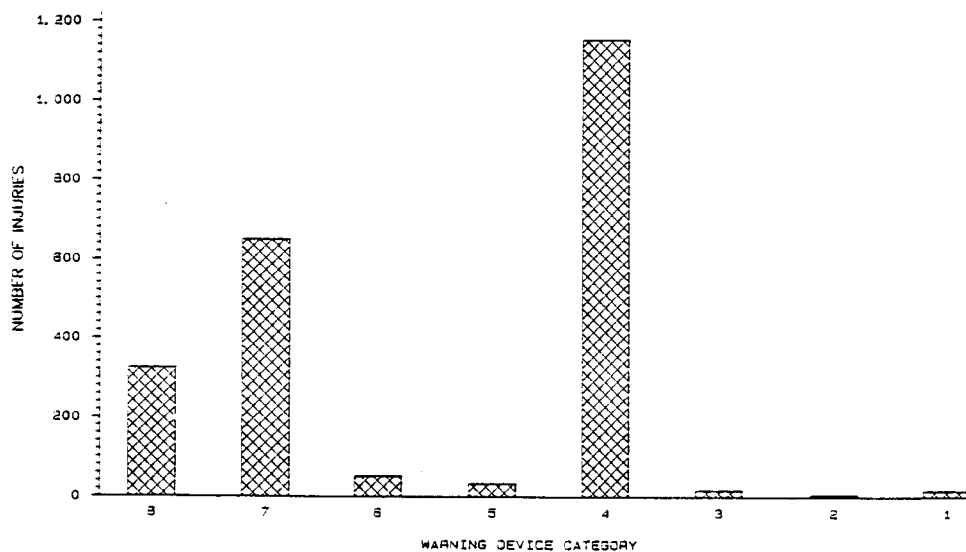
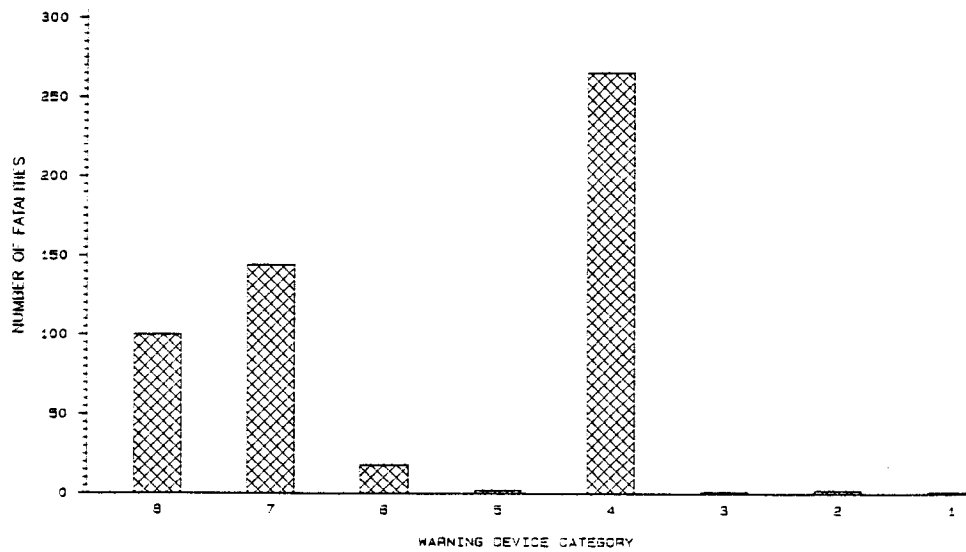
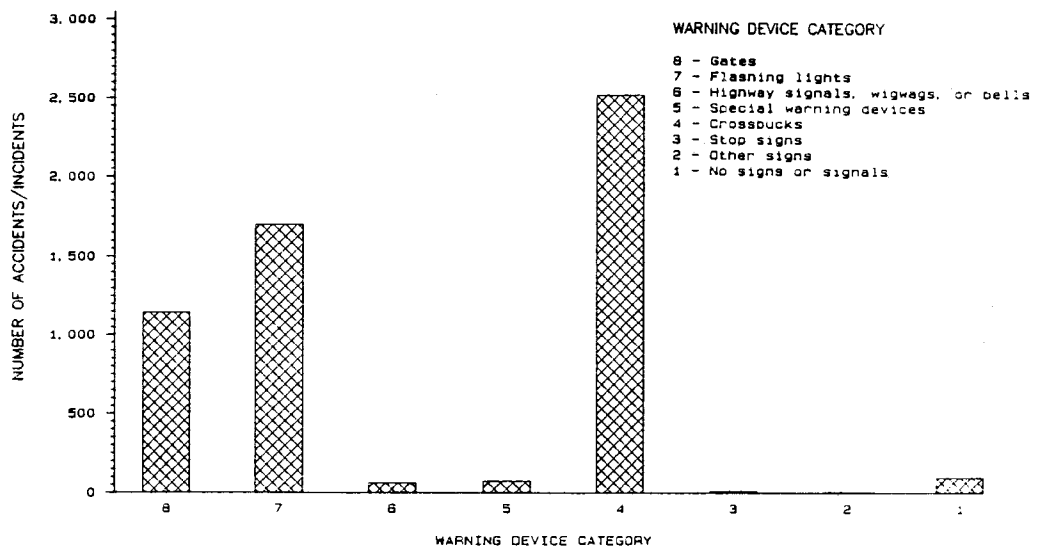
Track Class	Main			Yard			Siding			Industry			Unknown			Total		
	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj
1.....	545	9	158	286	3	60	60	3	14	173	1	46	---	---	---	1,064	16	278
2.....	1,082	35	461	65	2	24	28	2	7	27	1	5	---	---	---	1,202	40	497
3.....	1,580	178	724	30	1	13	3	---	---	15	---	6	---	---	---	1,628	179	743
4.....	1,729	334	745	6	---	4	5	---	1	3	1	2	---	---	---	1,743	335	752
5.....	127	23	60	---	---	---	---	---	---	1	---	---	---	---	---	128	23	60
6.....	4	---	3	---	---	---	---	---	---	---	---	---	---	---	4	---	---	3
Unknown.....	25	1	6	16	---	3	2	---	---	8	---	2	---	---	51	1	11	
Total.....	5,092	580	2,157	403	6	104	98	5	22	227	3	61	---	---	---	5,820	594	2,344

**WARNING DEVICE DATA**

**TABLE 22. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY WARNING DEVICE CATEGORY AND MOTORIST ACTION**

Warning Device	--Drove Around-- -Or Thru Gate-			--Stopped And-- -Then Proceeded			-Did Not Stop-			-----Other-----			----Unknown----			-----Total-----		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Gates.....	735	106	351	2	---	---	20	---	12	372	9	62	28	1	6	1,157	116	431
Cantilever flashrs	---	---	---	30	2	19	292	36	152	78	2	13	9	---	2	409	40	186
Standard flashers	---	---	---	69	7	22	910	119	423	291	6	40	25	---	4	1,295	132	489
Hwy Sig, W H, Bells	---	---	---	9	---	1	85	12	33	33	---	4	2	---	---	129	12	38
Special Devices..	---	---	---	16	---	2	68	3	23	16	---	1	1	---	2	101	3	28
Crossbucks.....	---	---	---	126	7	70	1,784	228	914	621	45	135	78	6	28	2,609	286	1,147
Stopsigns.....	---	---	---	5	---	1	30	2	6	15	---	1	2	---	---	52	2	8
Other Signs.....	---	---	---	1	---	---	10	---	3	3	---	1	---	---	---	14	---	4
No Signs Or Signl	---	---	---	6	1	1	36	2	12	12	---	---	---	---	---	54	3	13
Total.....	735	106	351	264	17	116	3,235	402	1,578	1,441	62	257	145	7	42	5,820	594	2,344

Note: "Special" are crossings protected by watchmen or members of train crew.  
 "Hwy Sig" = Highway signals, W H = Highways.



**FIGURE 6. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY WARNING DEVICE CATEGORY**

**TABLE 23. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TYPE AND OPERATIONAL STATUS OF WARNING DEVICE, CIRCUMSTANCE, AND VISIBILITY**

Warning Device	-Device Working--			-----Struck By Consist-----				-----Highway User-----			
	Yes	No	N/A	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Gates.....	1,135	3	19	26	388	25	469	15	94	10	130
Cantilever flashrs	407	1	1	8	154	5	91	7	66	1	77
Standard flashers	1,283	3	9	18	500	18	325	21	195	12	206
Hwy Sig,W W,Bells	126	---	3	2	59	---	25	---	25	---	18
Special Devices..	---	---	101	1	19	3	28	---	10	3	37
Crossbucks.....	---	---	2,609	65	1,184	77	576	22	330	21	334
Stopsigns.....	---	---	52	1	20	2	18	1	4	---	6
Other Signs.....	---	---	14	---	2	---	6	1	2	1	2
No Signs Or Signl	---	---	54	---	26	2	17	---	3	1	5
Total.....	2,951	7	2,862	121	2,352	132	1,555	67	729	49	815

Note: If a rail consist is intentionally grounded to prevent activation of the warning device, these are reported as "N/A."

**TABLE 24. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES DURING DUSK AND DARK HOURS BY ILLUMINATION OF CROSSING AND CIRCUMSTANCE**

**CIRCUMSTANCE**

	Struck By Consist			Ran Into Consist			-----Total-----		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Lighted.....	954	95	362	402	27	189	1,356	122	551
Not Lighted.....	2,213	285	843	860	59	410	3,073	344	1,253
Not Reported.....	952	105	338	386	21	177	1,338	126	515
Total.....	4,160	487	1,561	1,660	107	783	5,820	594	2,344

**TABLE 25. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY LOCATION AND TYPE OF WARNING DEVICE, CIRCUMSTANCE, AND VISIBILITY**

**VISIBILITY**

Warning Device	Dawn			Day			Dusk			Dark			Total		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
Automatic, Both Sides.....	48	6	9	1,051	132	340	47	2	25	877	91	305	2,023	231	679
Automatic, Side Of Approach.....	5	---	13	43	1	10	1	---	---	28	5	17	77	6	40
Automatic, Opposite Side.....	---	---	---	5	1	1	---	---	---	3	---	1	8	1	2
Automatic, Side Not Reported.....	1	---	---	2	---	---	---	---	---	2	1	---	5	1	---
Manual, Both Sides.....	1	---	---	12	---	2	3	---	1	22	---	2	38	---	5
Manual, Side Of Approach.....	---	---	---	3	---	---	---	---	---	4	---	1	7	---	1
Manual, Opposite Side.....	---	---	---	2	---	---	---	---	---	---	---	---	2	---	---
Manual, Side Not Reported.....	---	---	---	2	---	---	---	---	---	---	---	---	4	---	---
Other, Both Sides.....	61	8	18	1,127	166	531	69	7	31	549	56	191	1,806	237	771
Other, Side Of Approach.....	2	---	---	47	1	18	5	---	---	32	1	9	86	2	27
Other, Opposite Side.....	1	---	1	20	2	7	5	1	6	13	1	6	39	4	20
Other, Side Not Reported.....	2	1	1	12	---	3	---	---	---	6	1	2	20	2	6
No Signs Or Signals.....	---	---	---	26	3	6	2	---	2	17	---	2	45	3	10
<b>Total.....</b>	<b>121</b>	<b>15</b>	<b>42</b>	<b>2,352</b>	<b>306</b>	<b>918</b>	<b>132</b>	<b>10</b>	<b>65</b>	<b>1,555</b>	<b>156</b>	<b>536</b>	<b>4,160</b>	<b>487</b>	<b>1,561</b>
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
Automatic, Both Sides.....	38	1	16	360	25	153	23	1	11	408	28	217	829	55	397
Automatic, Side Of Approach.....	4	---	3	17	3	6	---	---	---	19	3	15	40	6	24
Automatic, Opposite Side.....	---	---	---	2	---	---	---	---	---	3	---	1	5	---	1
Automatic, Side Not Reported.....	1	---	1	1	---	---	---	---	---	1	---	---	3	---	1
Manual, Both Sides.....	---	---	---	8	---	3	2	---	1	32	3	15	42	3	19
Manual, Side Of Approach.....	---	---	---	1	---	---	---	---	---	3	---	---	5	---	---
Manual, Opposite Side.....	---	---	---	---	---	---	---	---	---	1	---	1	1	---	1
Manual, Side Not Reported.....	---	---	---	1	---	---	---	---	---	1	---	---	2	---	2
Other, Both Sides.....	21	---	7	318	22	130	19	2	5	314	15	176	672	39	318
Other, Side Of Approach.....	2	---	3	12	1	4	3	---	1	24	2	7	41	3	15
Other, Opposite Side.....	---	---	---	5	---	1	---	---	---	2	---	---	7	---	1
Other, Side Not Reported.....	1	---	---	1	---	1	---	---	---	2	---	---	4	---	1
No Signs Or Signals.....	---	---	---	3	---	---	1	---	---	5	---	3	9	---	3
<b>Total.....</b>	<b>67</b>	<b>1</b>	<b>30</b>	<b>729</b>	<b>51</b>	<b>298</b>	<b>49</b>	<b>3</b>	<b>18</b>	<b>815</b>	<b>52</b>	<b>437</b>	<b>1,660</b>	<b>107</b>	<b>783</b>
<b>GRAND TOTAL</b>															
Automatic, Both Sides.....	86	7	25	1,411	157	493	70	3	36	1,285	119	522	2,852	286	1,076
Automatic, Side Of Approach.....	9	---	16	60	4	16	1	---	---	47	8	32	117	12	64
Automatic, Opposite Side.....	---	---	---	7	1	1	---	---	---	6	---	2	13	1	3
Automatic, Side Not Reported.....	2	---	1	3	---	---	---	---	---	3	1	---	8	1	1
Manual, Both Sides.....	1	---	---	20	---	5	5	---	2	54	3	17	80	3	24
Manual, Side Of Approach.....	---	---	---	4	---	---	1	---	---	7	---	1	12	---	1
Manual, Opposite Side.....	---	---	---	3	---	---	---	---	---	1	---	1	3	---	1
Manual, Side Not Reported.....	---	---	---	1	---	---	---	---	---	3	---	---	6	---	2
Other, Both Sides.....	82	8	25	1,445	188	661	88	9	36	863	71	367	2,478	276	1,089
Other, Side Of Approach.....	4	---	3	59	2	22	8	---	1	56	3	16	127	5	42
Other, Opposite Side.....	1	---	1	25	2	8	5	1	6	15	1	6	46	4	21
Other, Side Not Reported.....	3	1	1	13	---	4	---	---	---	8	2	2	24	3	7
No Signs Or Signals.....	---	---	---	29	3	6	3	---	2	22	---	5	54	3	13
<b>Total.....</b>	<b>188</b>	<b>16</b>	<b>72</b>	<b>3,081</b>	<b>357</b>	<b>1,216</b>	<b>181</b>	<b>13</b>	<b>83</b>	<b>2,370</b>	<b>208</b>	<b>973</b>	<b>5,820</b>	<b>594</b>	<b>2,344</b>

Note: Automatic devices include gates, flashing lights, and other devices which are activated by the approach of a rail consist. Manual devices include "Watchmen" and "Flagged by crew". "Other" devices include crossbucks, stop signs, etc.



**TABLE 26. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY VISIBILITY AND CIRCUMSTANCE**

Visibility	CIRCUMSTANCE								
	Struck By Consist			Ran Into Consist			-----Total-----		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Dawn.....	121	15	42	67	1	30	188	16	72
Day.....	2,352	306	918	729	51	298	3,081	357	1,216
Dusk.....	132	10	65	49	3	18	181	13	83
Dark.....	1,555	156	536	815	52	437	2,370	208	973
<b>Total.....</b>	<b>4,160</b>	<b>487</b>	<b>1,561</b>	<b>1,660</b>	<b>107</b>	<b>783</b>	<b>5,820</b>	<b>594</b>	<b>2,344</b>

**TABLE 27. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TEMPERATURE, CIRCUMSTANCE, AND VISIBILITY**

Temperature	CIRCUMSTANCE								-----Total-----			
	----Struck By Consist----				----Ran Into Consist----				Dawn	Day	Dusk	Dark
	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark				
Over 100.....	---	11	1	1	---	1	---	---	---	12	1	1
80 To 100.....	5	702	22	98	2	190	7	57	7	892	29	155
60 To 79.....	37	748	48	439	17	200	13	232	54	948	61	671
40 To 59.....	43	516	37	551	21	160	13	256	64	676	50	807
20 To 39.....	28	298	18	358	19	124	13	214	47	422	31	572
0 To 19.....	8	70	6	98	6	48	3	49	14	118	9	147
-20 To -1.....	---	7	---	10	2	5	---	7	2	12	---	17
Under -20.....	---	---	---	---	---	---	---	---	---	---	---	---
Not Reported.....	---	---	---	---	---	---	---	---	---	---	---	---
<b>Total.....</b>	<b>121</b>	<b>2,352</b>	<b>132</b>	<b>1,555</b>	<b>67</b>	<b>729</b>	<b>49</b>	<b>815</b>	<b>188</b>	<b>3,081</b>	<b>181</b>	<b>2,370</b>

**TABLE 28. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY TIME OF DAY AND CIRCUMSTANCE**

TIME	CIRCUMSTANCE			CIRCUMSTANCE			-----Total-----		
	Struck A/I	By Consist Kld	Inj	Ran A/I	Into Consist Kld	Inj	A/I	Kld	Inj
MID TO 12:59 AM..	140	24	49	83	8	51	223	32	100
1 TO 1:59 AM...	114	15	30	83	5	56	197	20	86
2 TO 2:59 AM...	115	7	35	70	3	51	185	10	86
3 TO 3:59 AM...	65	1	24	46	13	23	111	14	47
4 TO 4:59 AM...	62	4	27	42	1	22	104	5	49
5 TO 5:59 AM...	94	18	24	50	4	30	144	22	54
6 TO 6:59 AM...	135	20	43	57	4	24	192	24	67
7 TO 7:59 AM...	162	25	72	52	2	26	214	27	98
8 TO 8:59 AM...	184	27	68	50	4	23	234	31	91
9 TO 9:59 AM...	191	26	54	70	1	28	261	27	82
10 TO 10:59 AM.	180	20	77	66	6	20	246	26	97
11 TO 11:59 AM.	225	28	99	74	4	26	299	32	125
NOON TO 12:59 PM.	226	31	77	62	4	28	288	35	105
1 TO 1:59 PM...	204	26	96	65	1	23	269	27	119
2 TO 2:59 PM...	208	17	55	68	9	40	276	26	95
3 TO 3:59 PM...	241	32	89	84	6	28	325	38	117
4 TO 4:59 PM...	242	45	101	85	6	30	327	51	131
5 TO 5:59 PM...	233	17	100	64	5	24	297	22	124
6 TO 6:59 PM...	230	17	95	73	3	27	303	20	122
7 TO 7:59 PM...	217	20	97	91	2	41	308	22	138
8 TO 8:59 PM...	171	9	60	64	3	45	235	12	105
9 TO 9:59 PM...	179	21	58	77	4	27	256	25	85
10 TO 10:59 PM.	185	21	77	81	2	38	266	23	115
11 TO 11:59 PM.	157	16	54	103	7	52	260	23	106
Unknown.....	---	---	---	---	---	---	---	---	---
Total.....	4,160	487	1,561	1,660	107	783	5,820	594	2,344

**TABLE 29. ACCIDENTS/INCIDENTS AND CASUALTIES AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY MONTH AND CIRCUMSTANCE**

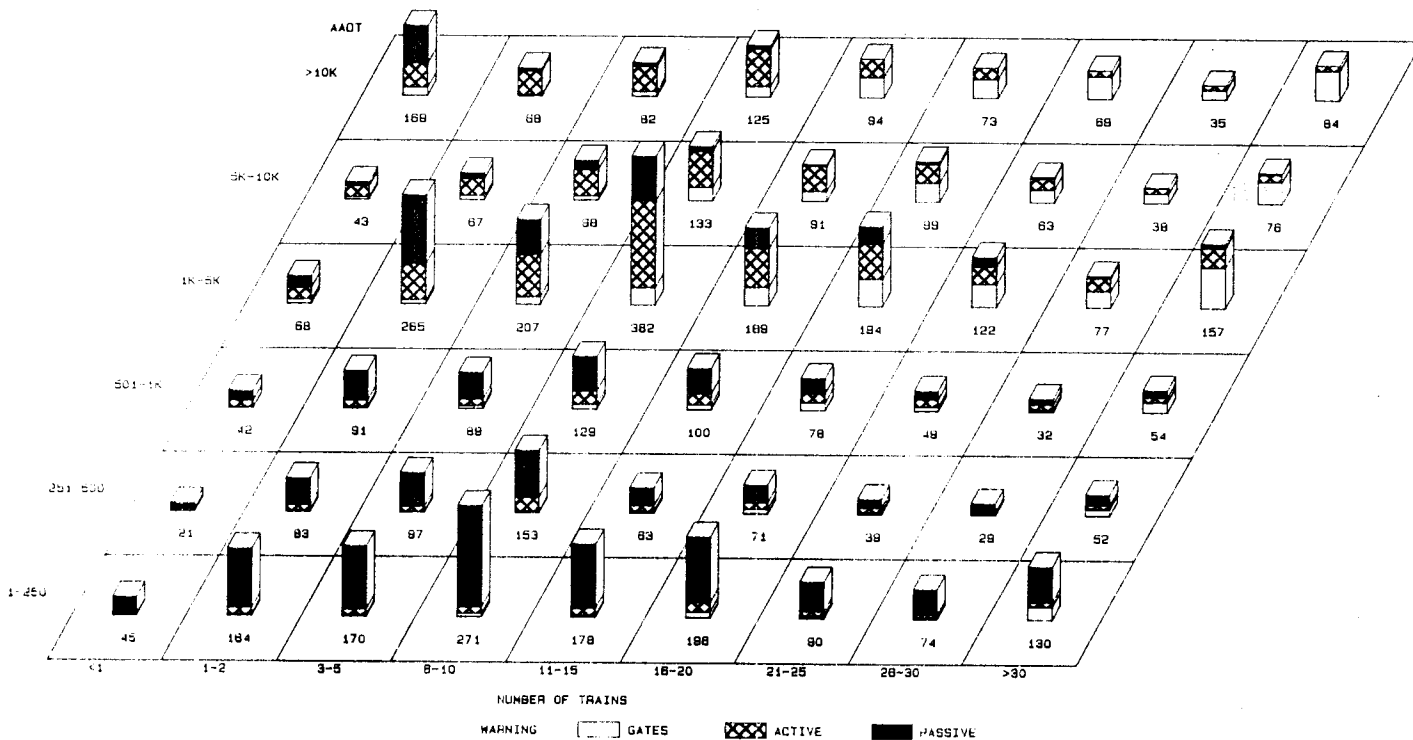
Month	CIRCUMSTANCE			CIRCUMSTANCE			-----Total-----		
	Struck A/I	By Consist Kld	Inj	Ran A/I	Into Consist Kld	Inj	A/I	Kld	Inj
January.....	397	32	136	197	14	83	594	46	219
February.....	362	51	137	171	14	53	533	65	190
March.....	354	48	135	137	9	52	491	57	187
April.....	284	30	101	111	4	46	395	34	147
May.....	316	36	110	97	7	45	413	43	155
June.....	304	40	144	92	7	52	396	47	196
July.....	271	45	121	112	10	63	383	55	184
August.....	351	33	140	112	7	57	463	40	197
September.....	325	42	114	118	7	59	443	49	173
October.....	394	44	129	154	14	71	548	58	200
November.....	362	44	135	167	8	102	529	52	237
December.....	440	42	159	192	6	100	632	48	259
Total.....	4,160	487	1,561	1,660	107	783	5,820	594	2,344

**TABLE 30. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY WEATHER CONDITIONS, CIRCUMSTANCE, AND VISIBILITY**

**CIRCUMSTANCE**

Weather	Struck By Consist				Ran Into Consist				Total			
	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Clear.....	82	1,703	84	982	41	505	30	510	123	2,208	114	1,492
Cloudy.....	24	471	31	336	8	116	14	186	32	587	45	522
Rain.....	6	117	12	157	8	68	3	69	14	185	15	226
Fog.....	7	15	1	23	8	7	---	21	15	22	1	44
Sleet.....	1	6	---	6	---	2	---	4	1	8	---	10
Snow.....	1	39	4	51	2	31	2	25	3	70	6	76
Not Reported.....	---	1	---	---	---	---	---	---	---	1	---	---
<b>Total.....</b>	<b>121</b>	<b>2,352</b>	<b>132</b>	<b>1,555</b>	<b>67</b>	<b>729</b>	<b>49</b>	<b>815</b>	<b>188</b>	<b>3,081</b>	<b>181</b>	<b>2,370</b>

**FIGURE 7. ACCIDENTS/INCIDENTS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC (AADT)**



MOTORIST ACTION DATA

**TABLE 31. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY OBSTRUCTION OF MOTORISTS' VIEW, CIRCUMSTANCE, AND VISIBILITY**

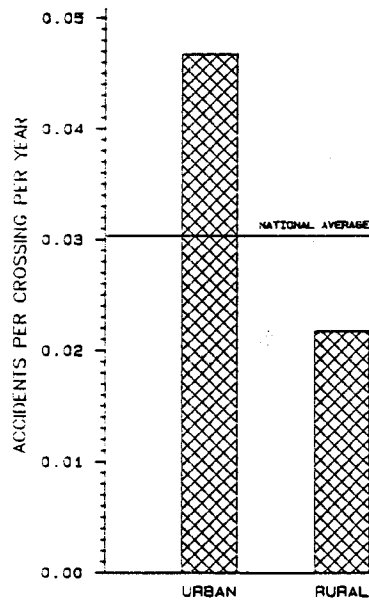
**CIRCUMSTANCE**

Type Obstruction	---Struck By Consist---				---Ran Into Consist---				-----Total-----			
	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark	Dawn	Day	Dusk	Dark
Permanent structure...	7	77	5	44	---	27	2	12	7	104	7	56
Standing RR Equipment.	1	15	2	8	---	5	---	3	1	20	2	11
Passing Train.....	---	10	---	6	---	3	---	6	---	13	---	12
Topography.....	1	25	2	6	1	6	1	4	2	31	3	10
Vegetation.....	1	53	2	10	2	34	1	10	3	87	3	20
Highway Vehicle.....	1	14	---	2	---	5	---	3	1	19	---	5
Other.....	---	12	1	12	---	6	---	7	---	18	1	19
Not Obstructed.....	110	2,144	120	1,465	64	642	45	770	174	2,786	165	2,235
Unknown.....	---	2	---	2	---	1	---	---	---	3	---	2
Total.....	121	2,352	132	1,555	67	729	49	815	188	3,081	181	2,370

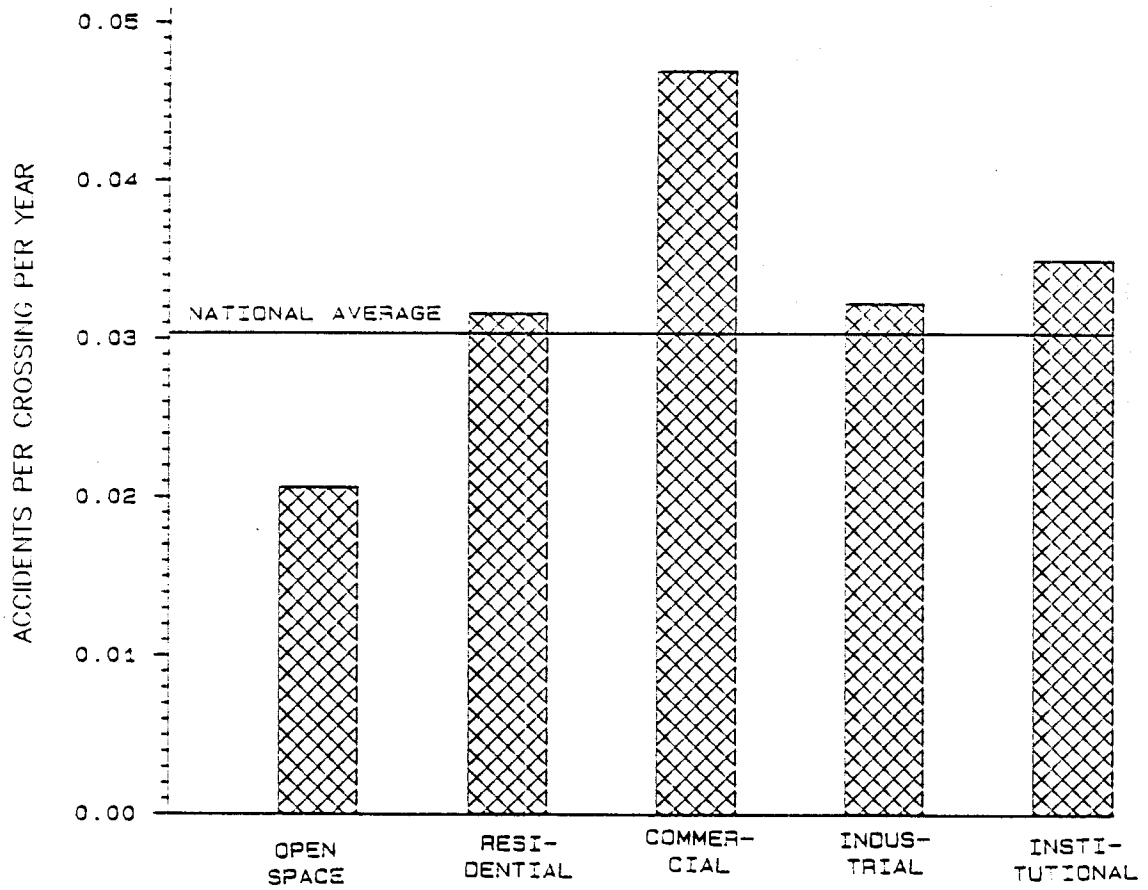
**TABLE 32. ACCIDENTS/INCIDENTS AT RAIL-HIGHWAY CROSSINGS INVOLVING MOTOR VEHICLES BY MOTORIST ACTION AND TYPE OF VEHICLE**

**MOTORIST ACTION**

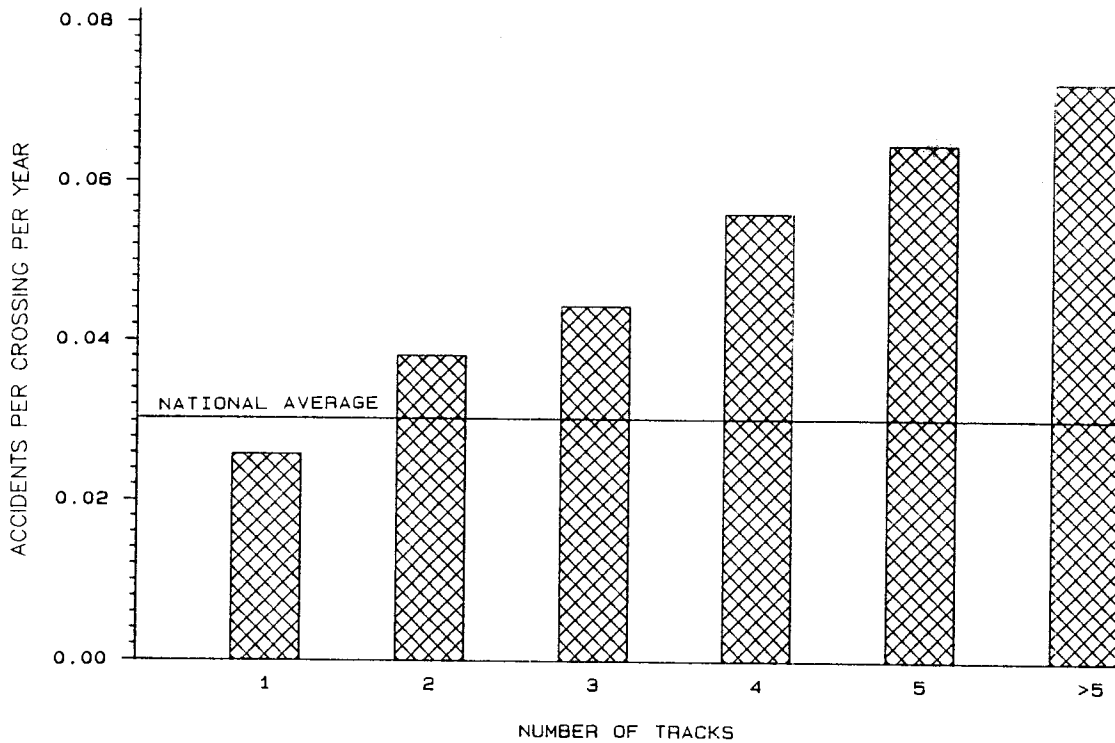
Type Of Vehicle	Struck By Second Train			Passed Standing Vehicle		
	Yes	No	Unknown	Yes	No	Unknown
Automobile.....	121	3,712	66	176	3,372	351
Truck.....	41	1,306	19	48	1,232	86
Truck-trailer....	26	484	6	17	473	26
Bus.....	1	9	---	---	8	2
School bus.....	---	1	---	---	1	---
Motorcycle.....	---	26	2	4	20	4
Total.....	189	5,538	93	245	5,106	469



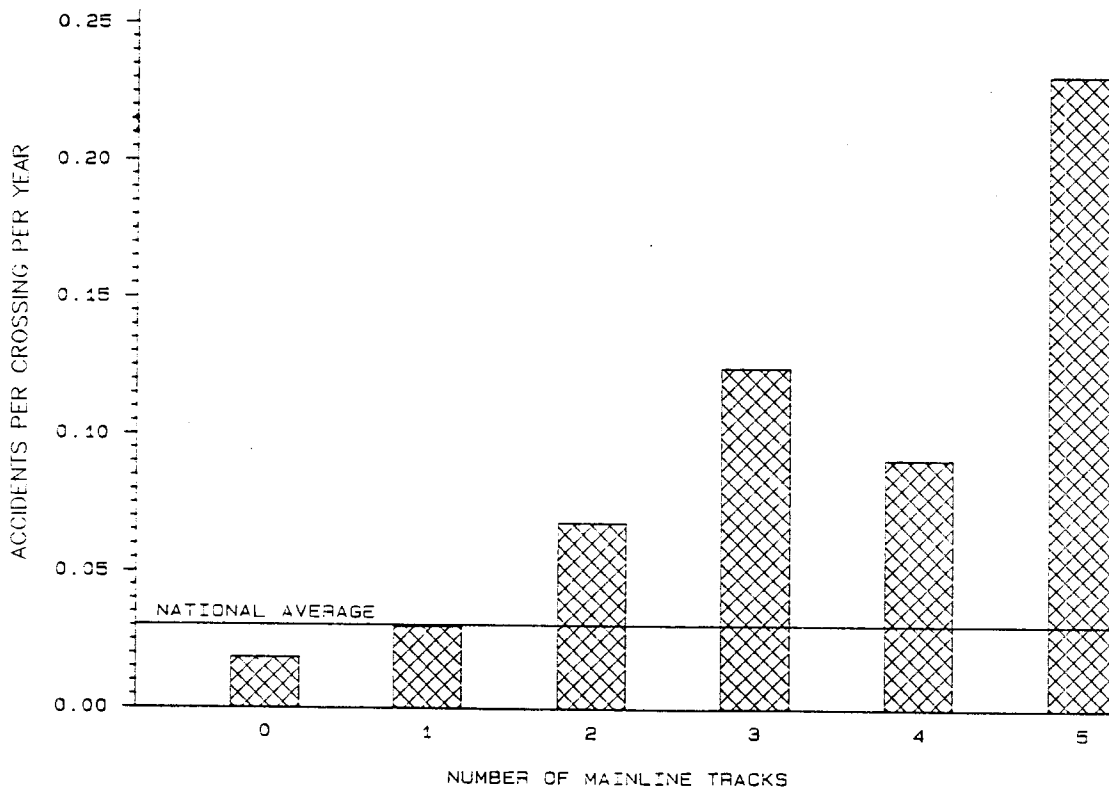
**FIGURE 8. CROSSING ACCIDENT RATE BY LOCATION: URBAN OR RURAL**



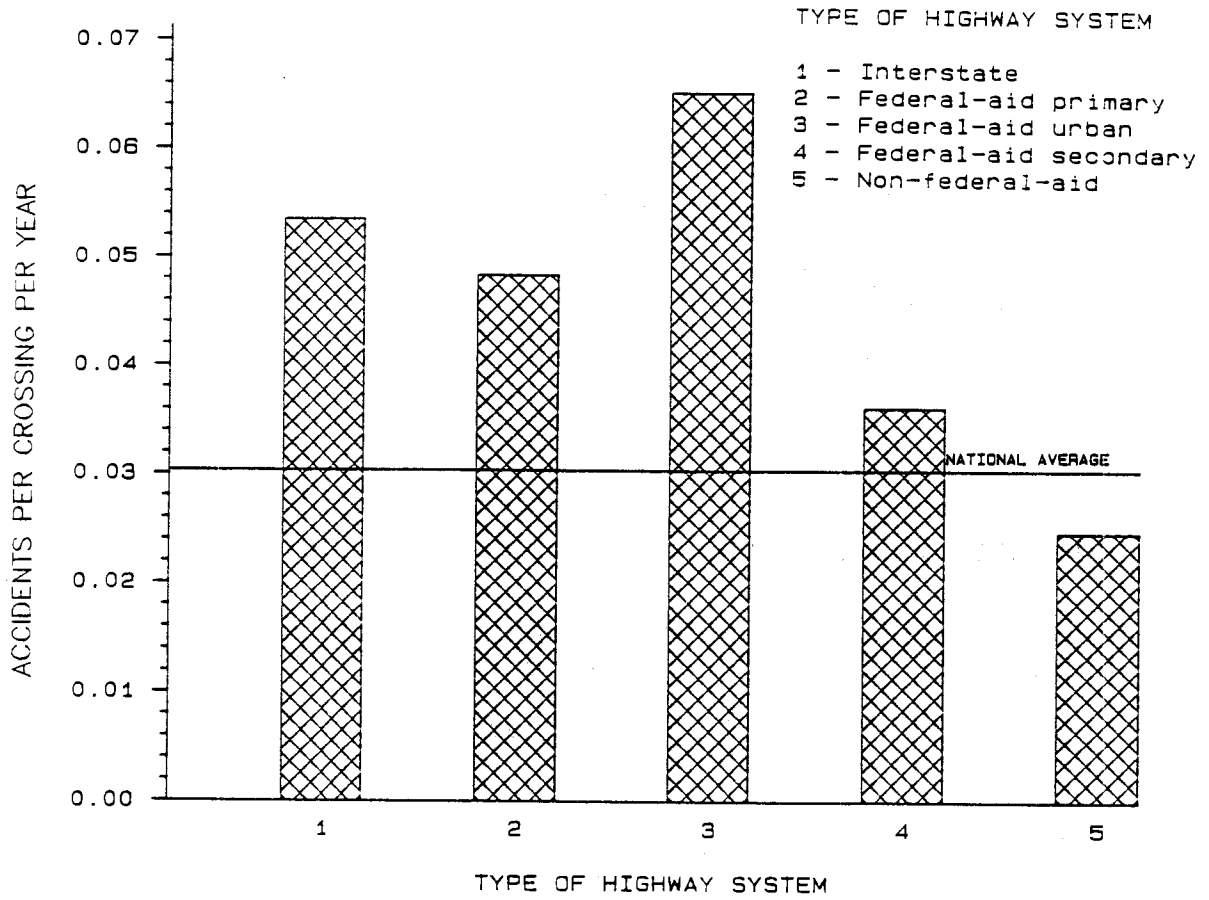
**FIGURE 9. CROSSING ACCIDENT RATE BY TYPE OF DEVELOPMENT**



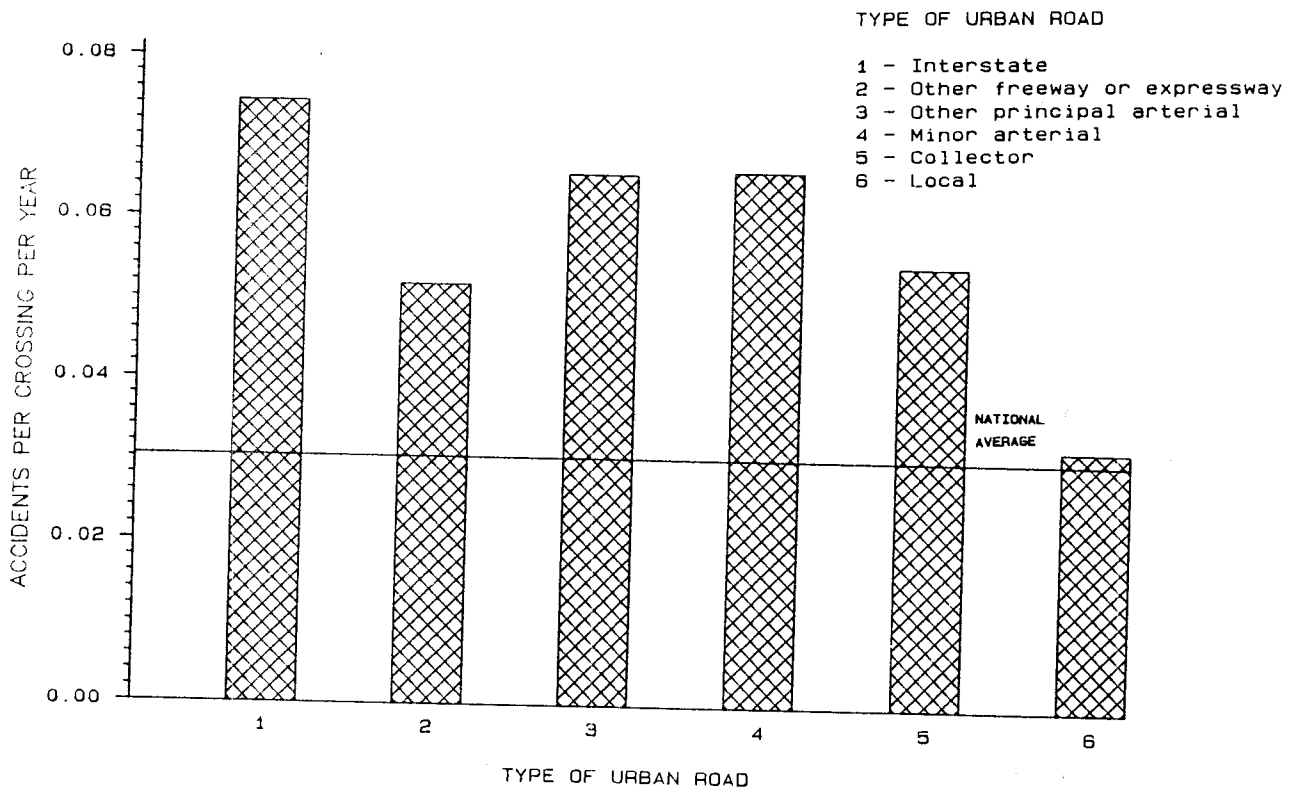
**FIGURE 10. CROSSING ACCIDENT RATE BY NUMBER OF TRACKS**



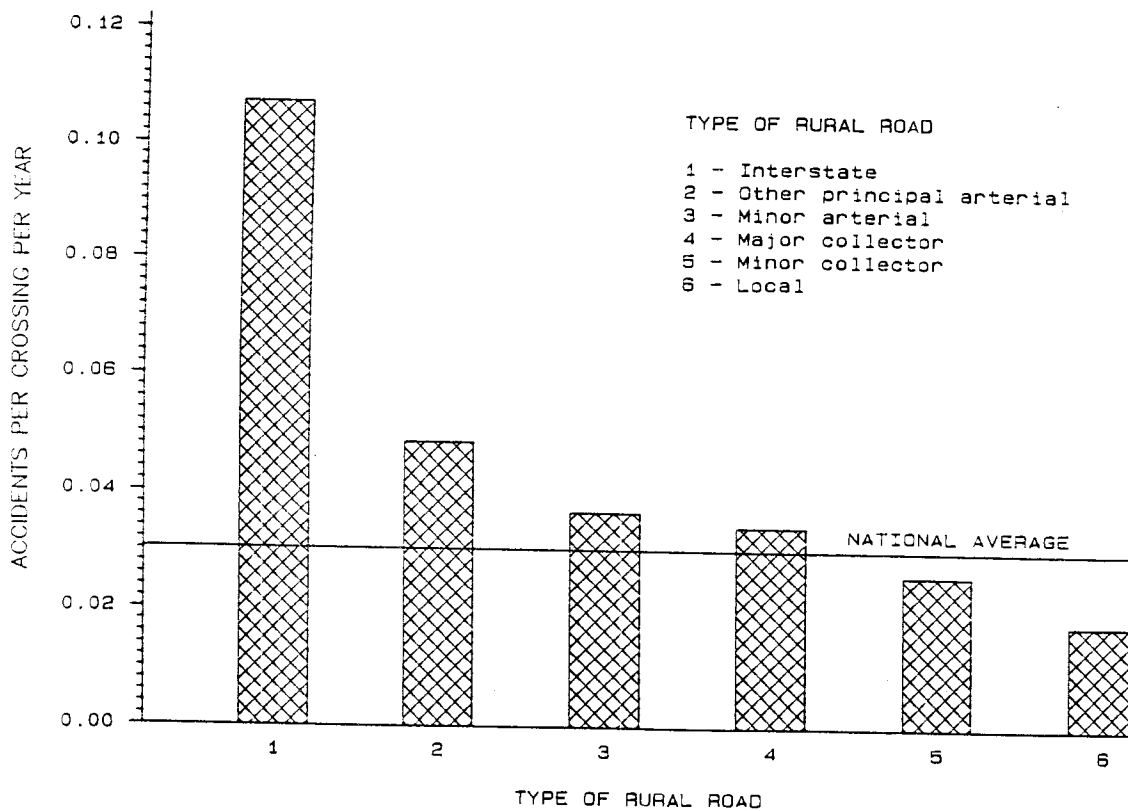
**FIGURE 11. CROSSING ACCIDENT RATE BY NUMBER OF MAINLINE TRACKS**



**FIGURE 12. CROSSING ACCIDENT RATE BY HIGHWAY SYSTEM**

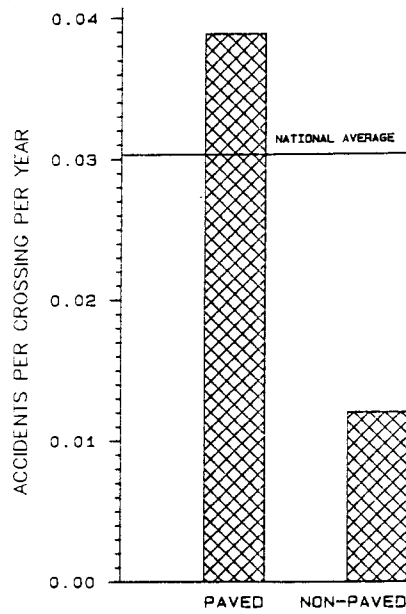


**FIGURE 13. CROSSING ACCIDENT RATE BY TYPE OF URBAN ROAD**

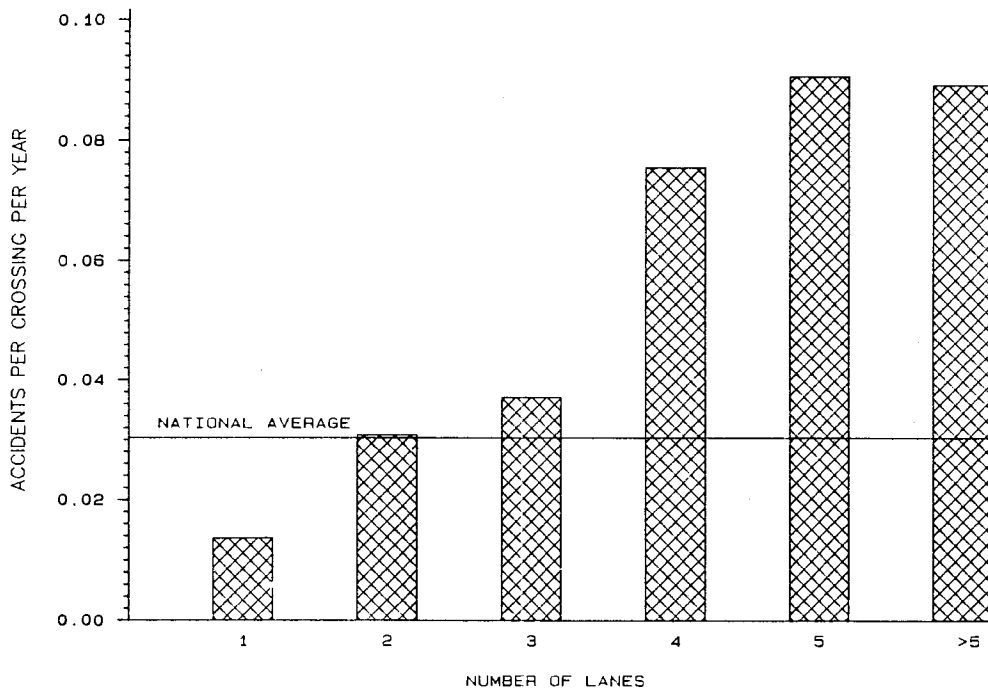


**FIGURE 14. CROSSING ACCIDENT RATE BY TYPE OF RURAL ROAD**

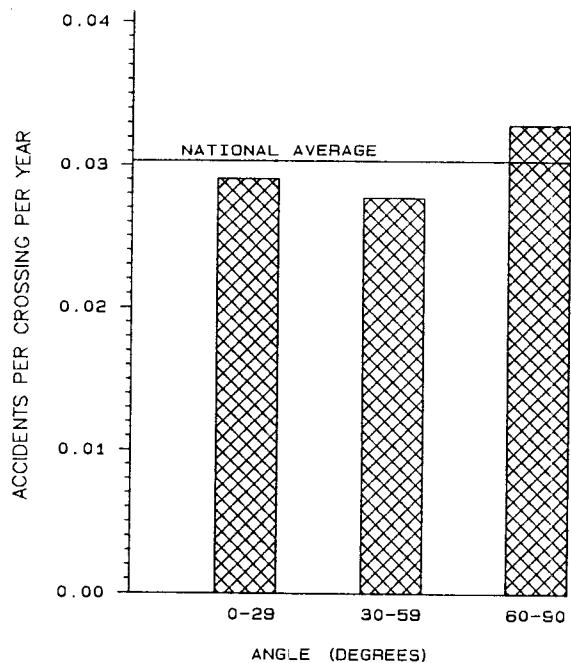




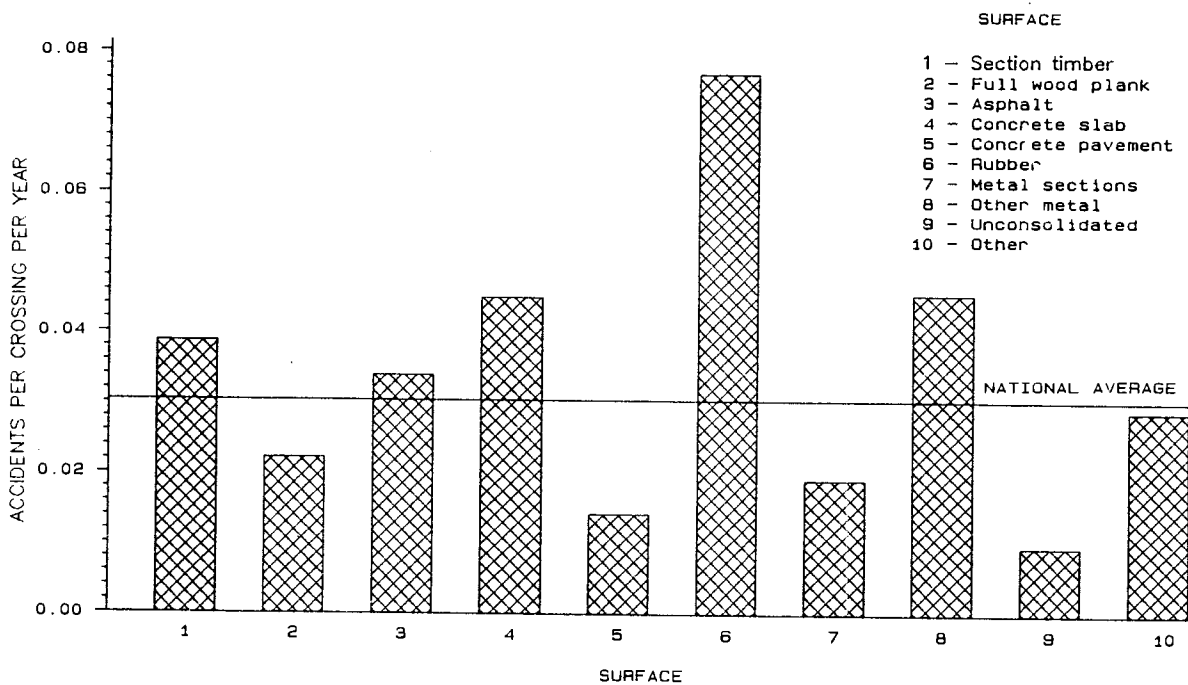
**FIGURE 15. CROSSING ACCIDENT RATE BY PAVED OR NON-PAVED ROAD SURFACE**



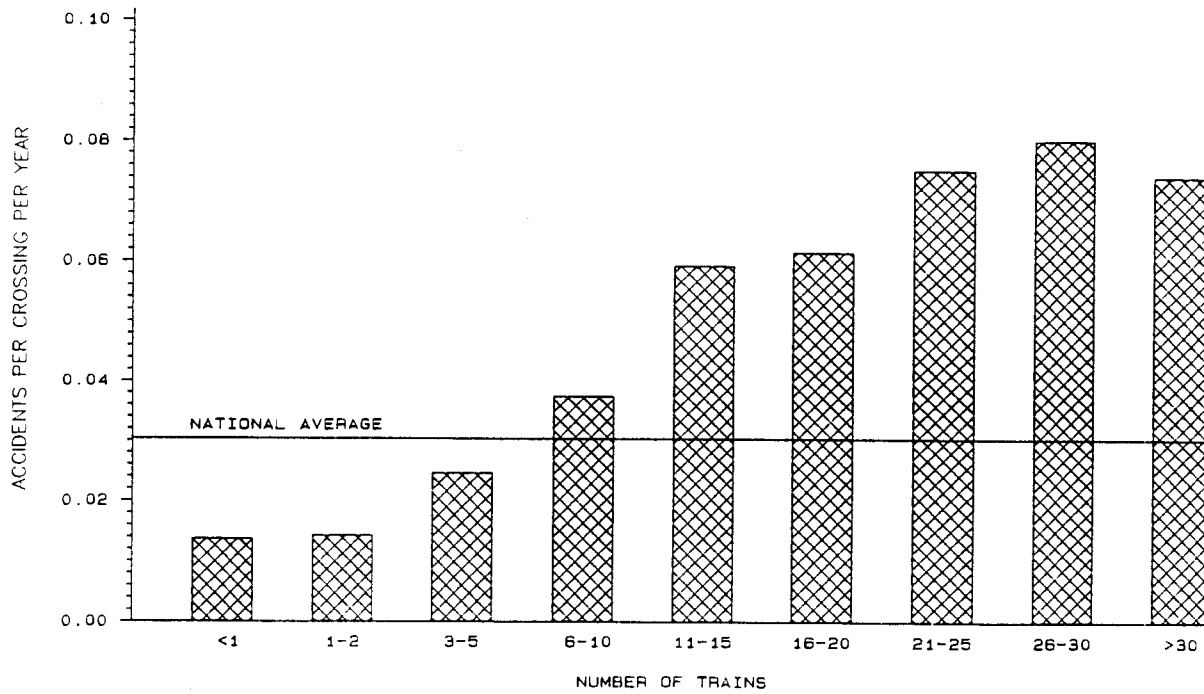
**FIGURE 16. CROSSING ACCIDENT RATE BY NUMBER OF TRAFFIC LANES**



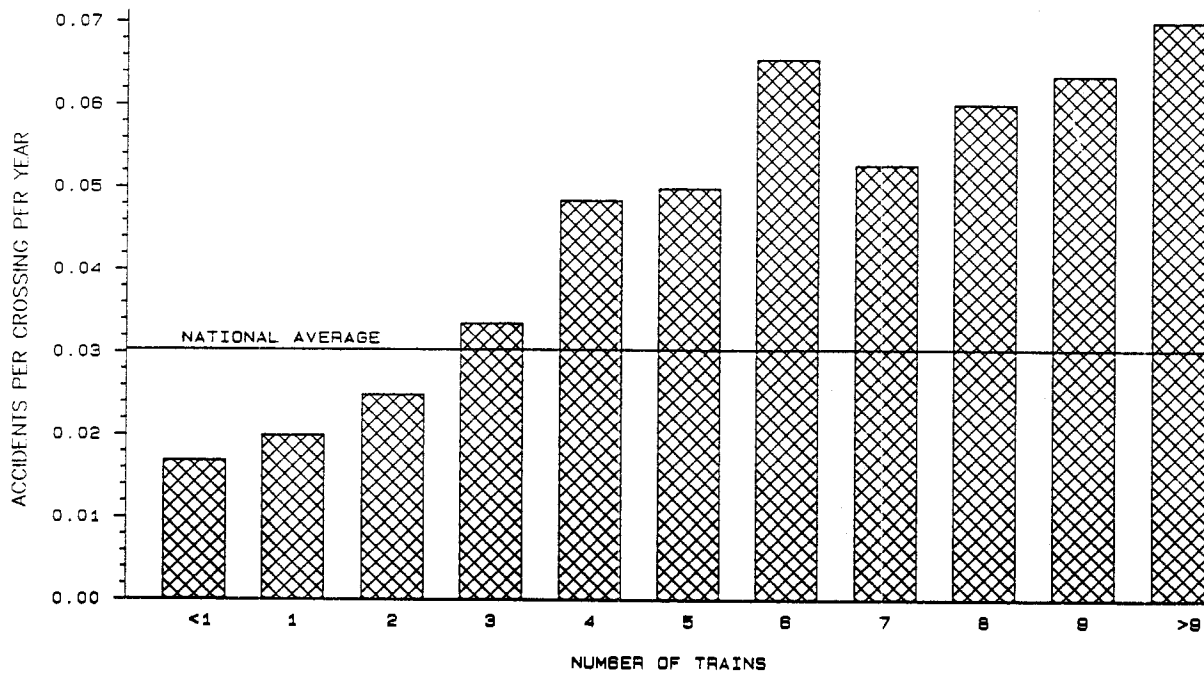
**FIGURE 17. CROSSING ACCIDENT RATE BY SMALLEST CROSSING ANGLE**



**FIGURE 18. CROSSING ACCIDENT RATE BY CROSSING SURFACE**



**FIGURE 19. CROSSING ACCIDENT RATE BY NUMBER OF TRAINS PER DAY**



**FIGURE 20. CROSSING ACCIDENT RATE BY NUMBER OF THRU-TRAINS DURING DAYLIGHT HOURS (6AM TO 6PM)**

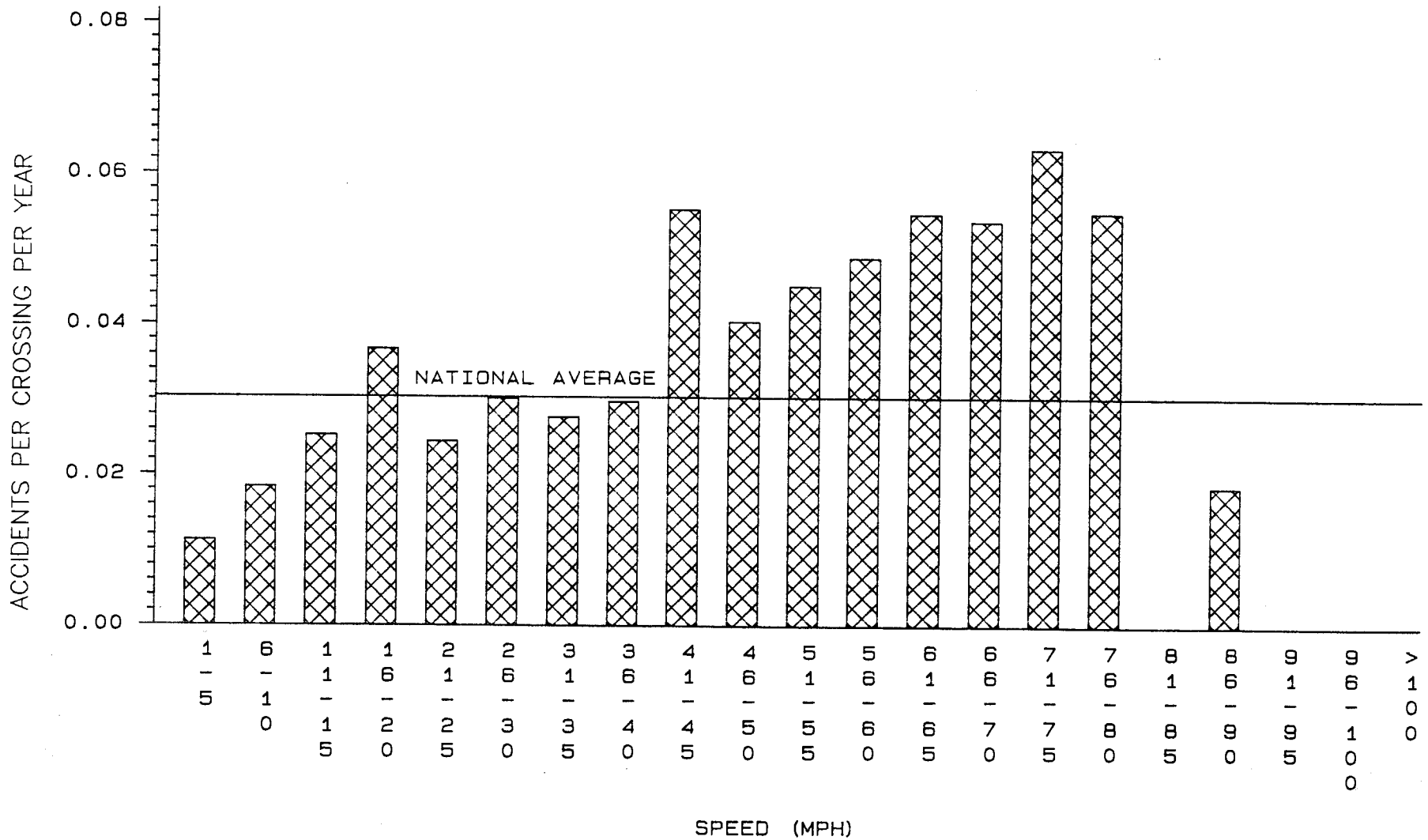


FIGURE 21. CROSSING ACCIDENT RATE BY MAXIMUM TIMETABLE SPEED

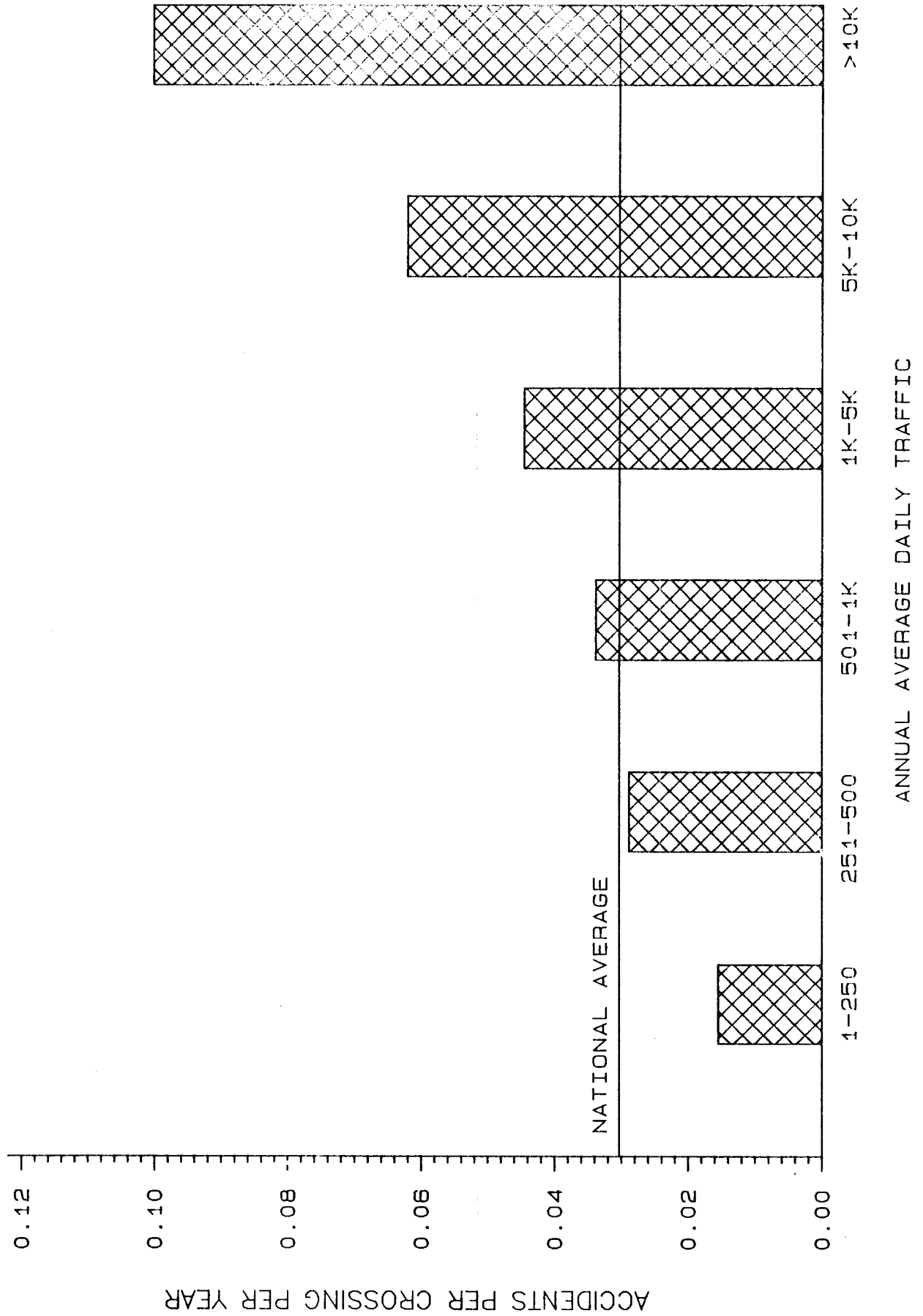
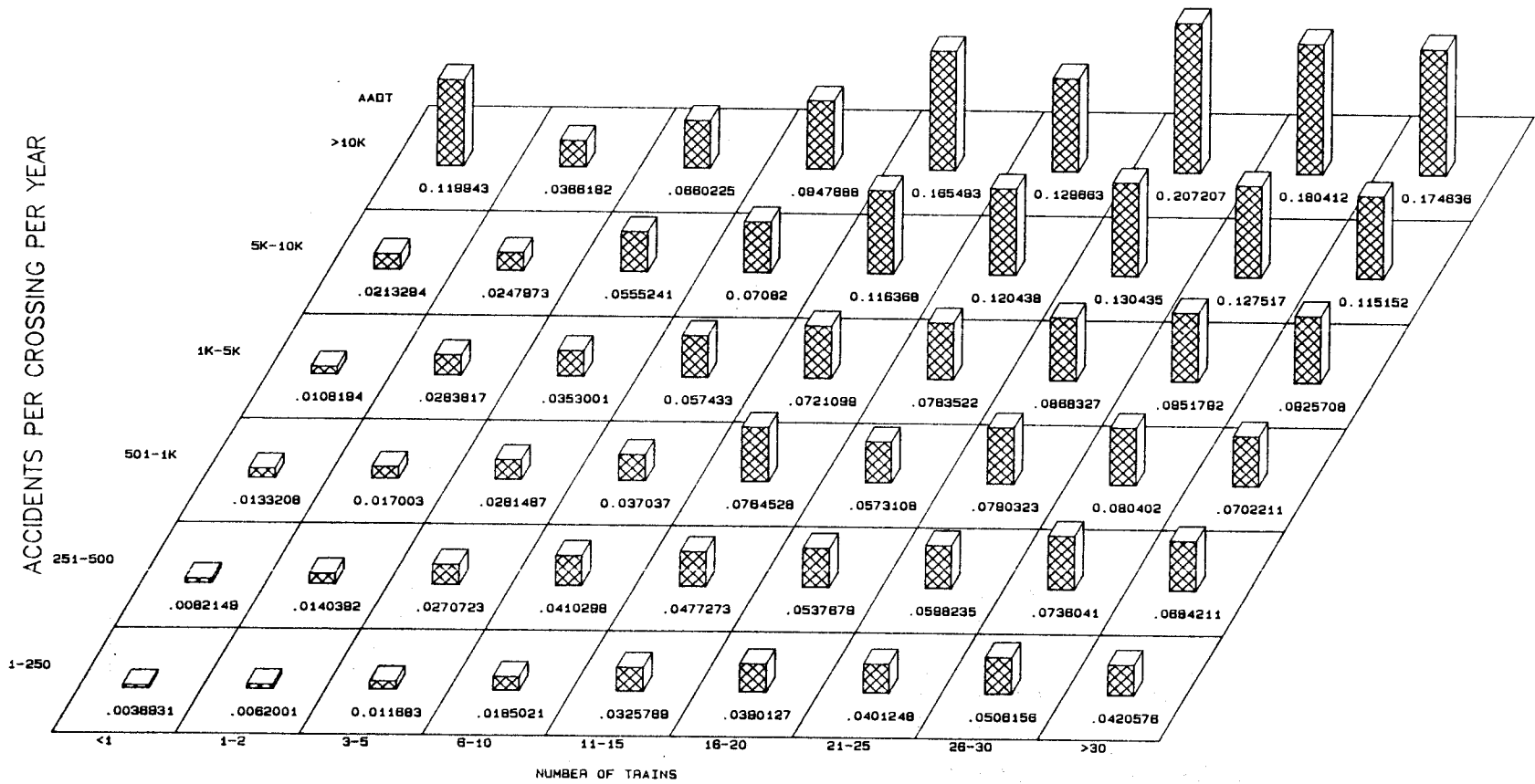


FIGURE 22. CROSSING ACCIDENT RATE BY ANNUAL AVERAGE DAILY TRAFFIC



NATIONAL AVERAGE .03032

**FIGURE 23. CROSSING ACCIDENT RATE BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC**

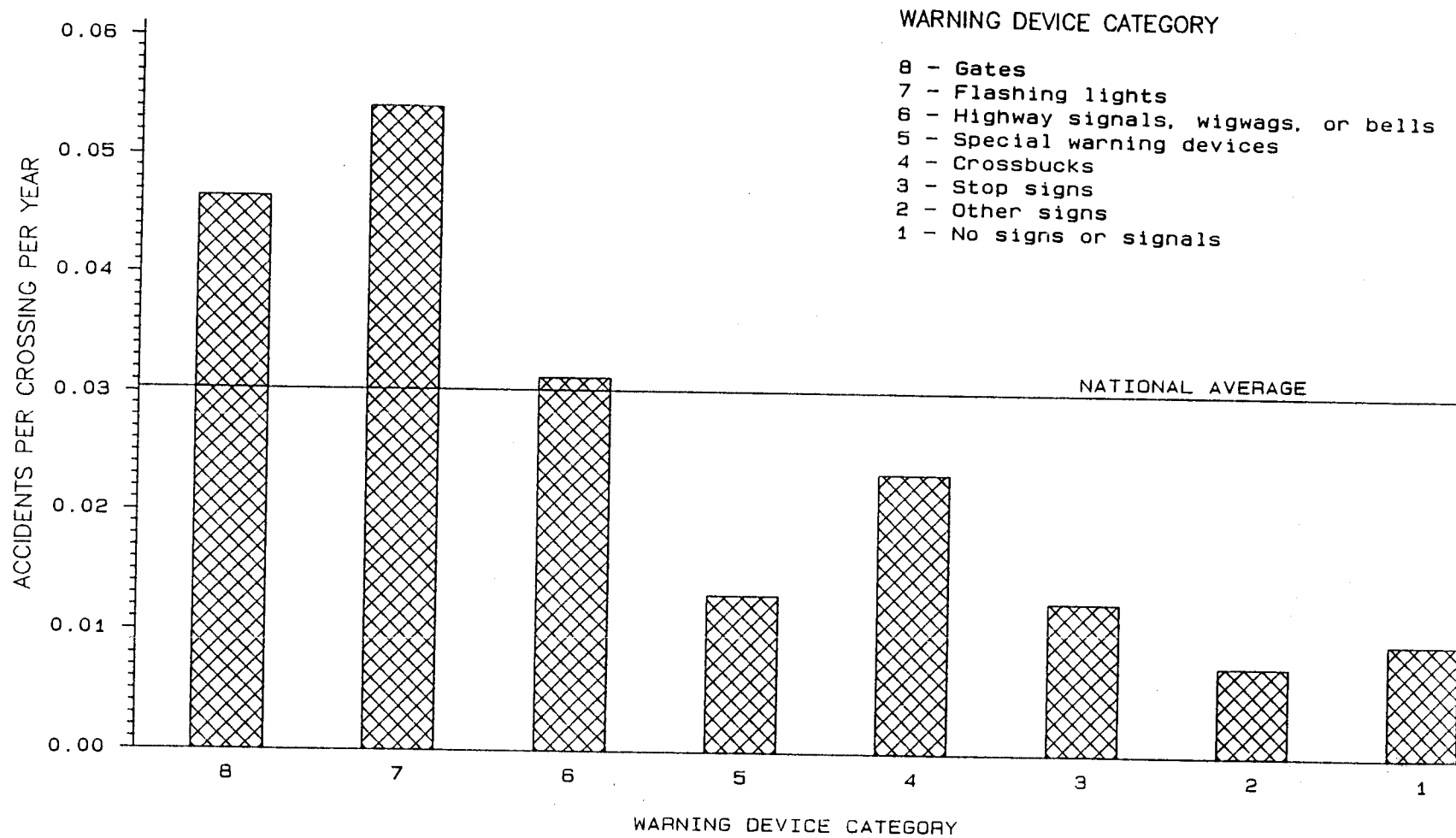


FIGURE 24. CROSSING ACCIDENT RATE BY WARNING DEVICE CATEGORY

#### 4. CURRENT YEAR RAIL-HIGHWAY CROSSING INVENTORY

##### PHYSICAL CHARACTERISTICS

**TABLE 33. TOTAL PUBLIC AND PRIVATE CROSSINGS BY STATE AND TYPE**

State	Public At Grade	RR Under	RR Over	Private	Pedestrian	Total
Alabama	4,552	503	190	2,407	32	7,684
Alaska	222	11	6	112	11	362
Arizona	972	89	90	824	8	1,983
Arkansas	3,441	181	119	1,662	18	5,421
California	8,485	936	559	5,277	252	15,509
Colorado	2,240	199	115	1,558	15	4,127
Connecticut	501	325	252	416	54	1,548
Delaware	250	44	59	173	4	530
Dist Of Columbia	37	30	38	12	13	130
Florida	4,205	208	75	1,511	68	6,067
Georgia	6,729	574	256	3,077	39	10,675
Hawaii	6	0	0	0	0	6
Idaho	1,782	95	62	1,637	10	3,586
Illinois	10,908	934	1,923	6,357	401	20,523
Indiana	7,744	490	615	3,585	144	12,578
Iowa	6,109	493	352	4,436	61	11,451
Kansas	8,708	352	218	4,528	38	13,844
Kentucky	3,315	454	467	3,557	103	7,896
Louisiana	4,443	223	128	3,739	58	8,591
Maine	951	122	80	1,088	12	2,253
Maryland	782	322	211	824	27	2,166
Massachusetts	1,197	796	436	589	103	3,121
Michigan	6,330	347	406	2,981	100	10,164
Minnesota	5,834	487	374	3,645	81	10,421
Mississippi	2,570	178	84	1,794	16	4,642
Missouri	5,320	684	436	3,849	107	10,396
Montana	1,643	136	82	2,276	20	4,157
Nebraska	4,289	216	131	2,988	22	7,646
Nevada	292	49	39	268	3	651
New Hampshire	513	118	54	364	13	1,062
New Jersey	1,910	535	728	665	125	3,963
New Mexico	820	68	79	588	4	1,559
New York	3,397	1,370	1,105	3,464	298	9,634
North Carolina	4,969	500	290	3,742	71	9,572
North Dakota	4,953	79	87	2,384	33	7,536
Ohio	8,670	1,187	1,159	4,924	105	16,045
Oklahoma	4,831	265	198	1,852	18	7,164
Oregon	2,630	282	177	3,125	98	6,312
Pennsylvania	5,837	1,592	1,926	3,886	327	13,568
Rhode Island	128	107	38	78	5	356
South Carolina	3,813	395	130	1,638	16	5,992
South Dakota	2,196	89	46	1,428	6	3,765
Tennessee	4,024	498	483	2,332	38	7,375
Texas	13,582	856	800	7,074	50	22,362
Utah	1,080	122	51	845	8	2,106
Vermont	526	78	83	773	52	1,512
Virginia	2,492	622	469	3,653	69	7,305
Washington	3,197	377	329	3,648	118	7,669
West Virginia	2,409	292	377	2,934	110	6,122
Wisconsin	5,526	443	345	3,426	166	9,906
Wyoming	569	113	53	1,091	8	1,834
Puerto Rico	24	0	0	2	0	26
FINAL TOTALS	181,953	19,466	16,810	119,086	3,558	340,873



**TABLE 34. TOTAL PUBLIC AND PRIVATE CROSSINGS BY CLASS I RAILROAD AND TYPE**

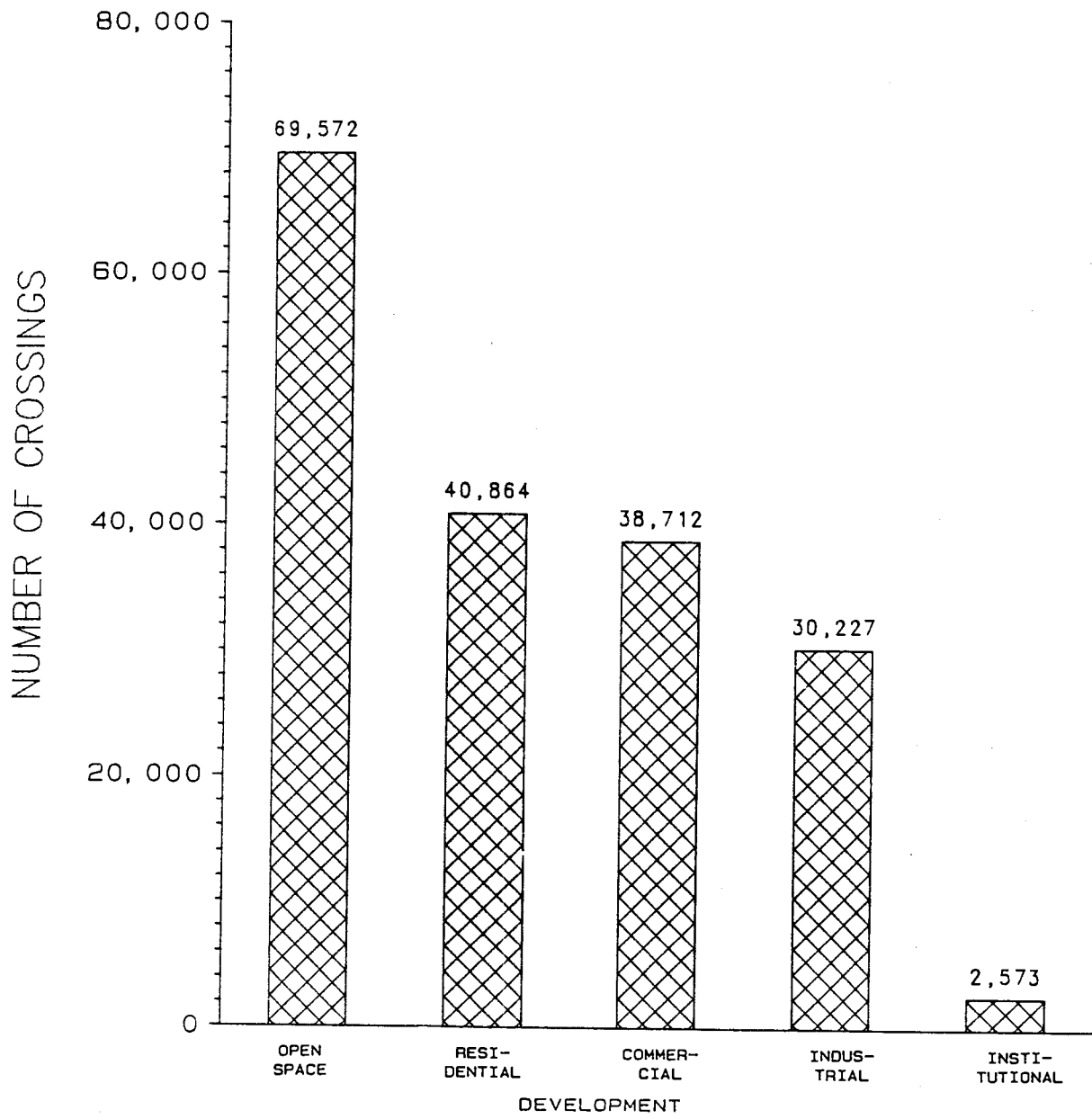
Railroad	Public At Grade	RR Under	RR Over	Private	Pedestrian	Total	
AFLR	Alabama And Florida Railroad	143	0	3	56	3	205
ARR	Alaska Railroad Corporation	218	11	13	112	1	358
ALY	Allegheny Railroad	138	15	8	98	5	269
ATK	Amtrak (National Railroad Passenger Corp.)	533	483	99	74	1,353	
AKN	Arkansas And Missouri Railroad Company	252	7	14	97	0	370
ATSF	Atchafalaya, Topoka And Santa Fe Railway Co.)	11,233	714	660	6,639	93	19,339
ASAB	Atlanta & Saint Andrews Bay Railway Company	137	6	1	70	1	215
AUNW	Austin And Northwestern Railroad	167	8	7	111	1	294
BOCT	Baltimore & Ohio Chicago Terminal Railroad	148	30	84	39	7	308
BAR	Bangor And Aroostook Railroad	167	9	22	479	3	680
BLE	Bessemer & Lake Erie Railroad Company	140	35	49	99	2	325
BLLOL	Bloomer Shippers Connecting Railroad Co.	104	0	0	49	1	154
BM	Boston And Maine Corporation	992	466	228	520	55	2,261
BN	Burlington Northern Railroad Company	20,348	1,538	1,223	14,510	354	37,973
CSP	Camas Prairie Railroad Company	112	2	13	109	2	238
CN	Canadian National Railways	190	14	1	167	1	383
CIC	Cedar Rapids And Iowa City Railway Company	101	6	6	92	4	219
CVAR	Cedar Valley Railroad	175	6	3	104	0	288
CHON	Central Michigan Railway Company	476	29	12	242	9	768
CV	Central Vermont Railway, Inc.	212	55	48	269	10	594
CIM	Chicago & Illinois Midland Railway Company	110	4	4	65	0	183
CNH	Chicago And North Western Transportation Co	7,268	624	778	4,879	188	13,737
CHMW	Chicago Missouri & Western Railway	646	77	71	372	41	1,207
CSS	Chicago South Shore And South Bend Railroad	126	13	18	28	3	188
CC	Chicago, Central & Pacific Railroad Company	931	89	79	768	27	1,894
CAGY	Columbus And Greenville Railway Company	337	4	1	314	3	659
CR	Consolidated Rail Corporation	15,183	3,369	3,556	8,425	450	30,983
CSX	CSX Transportation	25,696	2,903	2,151	16,471	580	47,801
DME	Dakota, Minnesota & Eastern Railroad	877	21	33	618	2	1,551
DH	Delaware And Hudson Railroad Company	363	99	115	586	29	1,192
DRGM	Denver And Rio Grande Western Railroad Co.	890	135	69	683	8	1,785
DOD	Department Of Defense	314	3	5	237	5	564
DM	Detroit And Mackinac Railway Company	431	8	1	207	10	657
DMIR	Duluth, Missabe And Iron Range Railway Co.	195	26	33	147	8	409
EJE	Eglin, Joliet And Eastern Railway Company	201	31	28	102	0	362
ESAB	Esanaba And Lake Superior Railroad Company	268	6	2	163	4	441
FCEN	Florida Central Railroad Co.	118	2	4	45	6	175
FEC	Florida East Coast Railway Company	702	30	5	80	13	830
GHH	Galveston, Houston & Henderson Railroad Co.	105	6	7	22	2	142
GSF	Georgia Southern & Florida Company	145	9	1	95	0	250
GNBC	Grainbelt Corporation	230	0	0	0	0	230
GTN	Grand Trunk Western Railroad Company	1,196	101	178	531	24	2,030
GBW	Green Bay And Western Railroad Company	319	10	3	251	0	583
GSMR	Gulf And Mississippi Railroad Corporation	677	52	29	460	2	1,220
HCRC	Hillsdale County Railway Company, Inc.	127	3	2	30	0	162
HBT	Houston Belt & Terminal Railway Company	209	25	15	57	5	311
HESR	Huron & Eastern Railway	112	0	0	89	0	201
IC	Illinois Central Railroad Company	2,679	284	300	1,526	91	4,880
IHRC	Indiana Hi-Rail Corporation	235	6	2	117	2	362
IHRD	Indiana Rail Road Company	455	21	34	89	1	270
IALS	Iowa Interstate Railroad	457	61	43	342	7	910
IANR	Iowa Northern Railway Company	221	5	5	119	0	350
KCS	Kansas City Southern Railway Company	1,027	99	79	494	8	1,707
LI	Long Island Rail Road	306	294	105	82	88	875
LA	Louisiana & Arkansas Railway Company	722	60	33	567	5	1,387
LDRR	Louisiana & Delta Railroad	246	1	0	210	0	457
MEC	Maine Central Railroad Company	141	17	13	97	2	270
MDDE	Maryland And Delaware Railroad Company	106	1	0	137	1	245
MFA	Maryland And Pennsylvania Railroad Company	109	6	5	21	1	142
MDT	Maryland Dept. Of Transportation	112	3	1	96	1	213
MSRC	Mid South Rail Corp.	485	72	25	272	2	836
MRR	Mid-Atlantic Railroad Company, Incorporated	114	4	0	128	2	268
MMRR	Mid-Michigan Railroad Company	126	4	0	90	3	221
MSPA	Mississippi Port Authority	418	19	21	185	1	644
MHRR	Minnesota Commercial Railway	101	0	2	5	0	108
MHVA	Minnesota Valley Transportation Company, Inc	104	2	0	101	1	208
MKT	Missouri-Kansas-Texas Railroad Company	1,984	170	156	876	7	3,193
MRL	Montana Rail Link	456	53	18	631	4	1,162
NERR	Nashville & Eastern Railroad	195	11	10	166	1	383
NJTR	New Jersey Transit Rail Operations	377	197	296	107	63	1,040
NOPB	New Orleans Public Belt Railroad	117	6	8	164	2	297
NYSM	New York, Susquehanna And Western Railroad	225	23	9	225	4	486
NW	Norfolk And Western Railway Company	7,110	749	1,020	5,500	108	14,487
NHP	Northwestern Pacific Railroad Company	122	26	4	188	7	347
ODOT	Oklahoma Department Of Transportation	739	36	24	257	1	1,057
OKKT	Oklahoma Kansas & Texas Railroad Company	303	17	8	120	1	449
OIVR	Otter Tail Valley Railroad Co., Inc.	178	12	12	161	1	364
PAL	Paducah & Louisville Railway Company	287	57	50	220	2	616
PLE	Pittsburgh & Lake Erie Railroad Company	109	53	35	114	18	329
PAGY	Prairie Central Railway Company	106	13	2	37	0	158
PARY	Prairie Trunk Railway	273	1	0	61	1	336
PW	Providence And Worcester Railroad Company	174	65	46	134	8	427
RRVW	Red River Valley & Western Railroad	750	4	3	309	0	1,066
SGLR	Seminole Gulf Railroad	159	7	0	31	0	197
SOD	Seo Line Railroad Company	5,318	410	441	3,495	121	9,785
SCRIF	South Carolina Central Railroad Co.	142	2	1	46	3	194
SDRR	South Dakota Railroad Authority	322	11	2	308	1	644
SEPA	Southeastern Pennsylvania Transp. Authority	262	114	174	75	50	675
SP	Southern Pacific Transportation Company	10,096	987	623	6,853	236	18,795
SOU	Southern Railway Company	12,064	1,337	775	7,509	65	21,750
SI	Spokane International Railroad Company	163	13	2	51	2	233
ST	Springfield Terminal Railway Company	36	24	5	299	5	744
SSW	St. Louis Southwestern Railway Company	2,233	130	92	977	2	3,434
SUB	State Subsidy	333	35	31	148	2	549
TRRA	Terminal Railroad Association Of St. Louis	162	50	34	15	1	262
TM	Texas Mexican Railway Company	240	9	2	195	0	446
THRY	Tradewater Railway Company	108	0	2	107	0	217
TSBY	Tuscola And Saginaw Bay Railroad Company, Inc	604	20	7	242	9	882
UP	Union Pacific Railroad Company	19,397	1,374	846	13,614	196	35,427
HC	Wisconsin Central Ltd.	1,883	82	49	1,114	27	3,155
HCRC	Washington Central Railroad Company	350	17	13	337	0	717
WICI	Wisconsin Central Railroad	421	30	13	357	12	833
MSRY	Wisconsin And Southern Railway Company	152	6	6	164	5	333
WM	Winchester And Western Railroad Company	117	7	3	69	0	196
	All Other Railroads	12,332	1,182	1,225	9,444	331	24,514
FINAL TOTALS		181,953	19,466	16,810	119,086	3,558	340,873

**TABLE 35. TOTAL CROSSINGS BY STATE AND LOCATION: URBAN OR RURAL**

State	Urban	Rural	Total
Alabama.....	2,071	2,481	4,552
Alaska.....	93	129	222
Arizona.....	496	476	972
Arkansas.....	1,324	2,117	3,441
California.....	6,208	2,277	8,485
Colorado.....	786	1,454	2,240
Connecticut.....	395	106	501
Delaware.....	78	172	250
Dist of Columbia.	37	---	37
Florida.....	2,519	1,686	4,205
Georgia.....	2,378	4,351	6,729
Hawaii.....	---	6	6
Idaho.....	320	1,462	1,782
Illinois.....	4,120	6,788	10,908
Indiana.....	3,359	4,385	7,744
Iowa.....	1,866	4,243	6,109
Kansas.....	1,555	7,153	8,708
Kentucky.....	944	2,371	3,315
Louisiana.....	2,022	2,421	4,443
Maine.....	237	714	951
Maryland.....	486	296	782
Massachusetts....	846	351	1,197
Michigan.....	2,582	3,748	6,330
Minnesota.....	1,638	4,196	5,834
Mississippi.....	1,004	1,566	2,570
Missouri.....	1,765	3,555	5,320
Montana.....	321	1,322	1,643
Nebraska.....	621	3,668	4,289
Nevada.....	69	223	292
New Hampshire....	231	282	513
New Jersey.....	1,369	541	1,910
New Mexico.....	242	578	820
New York.....	1,582	1,815	3,397
North Carolina...	2,067	2,902	4,969
North Dakota.....	302	4,651	4,953
Ohio.....	4,063	4,607	8,670
Oklahoma.....	318	4,513	4,831
Oregon.....	1,185	1,445	2,630
Pennsylvania.....	3,035	2,802	5,837
Rhode Island.....	123	5	128
South Carolina...	1,390	2,423	3,813
South Dakota.....	260	1,936	2,196
Tennessee.....	1,624	2,400	4,024
Texas.....	7,223	6,359	13,582
Utah.....	592	488	1,080
Vermont.....	168	358	526
Virginia.....	1,149	1,343	2,492
Washington.....	1,466	1,731	3,197
West Virginia....	504	1,905	2,409
Wisconsin.....	2,311	3,215	5,526
Wyoming.....	68	501	569
Puerto Rico.....	---	24	24
Unknown.....	---	---	---
Total.....	71,412	110,541	181,953

NOTE: The classification of a crossing as urban or rural is now based on the functional classification code. In previous publications it was based on the highway system code.



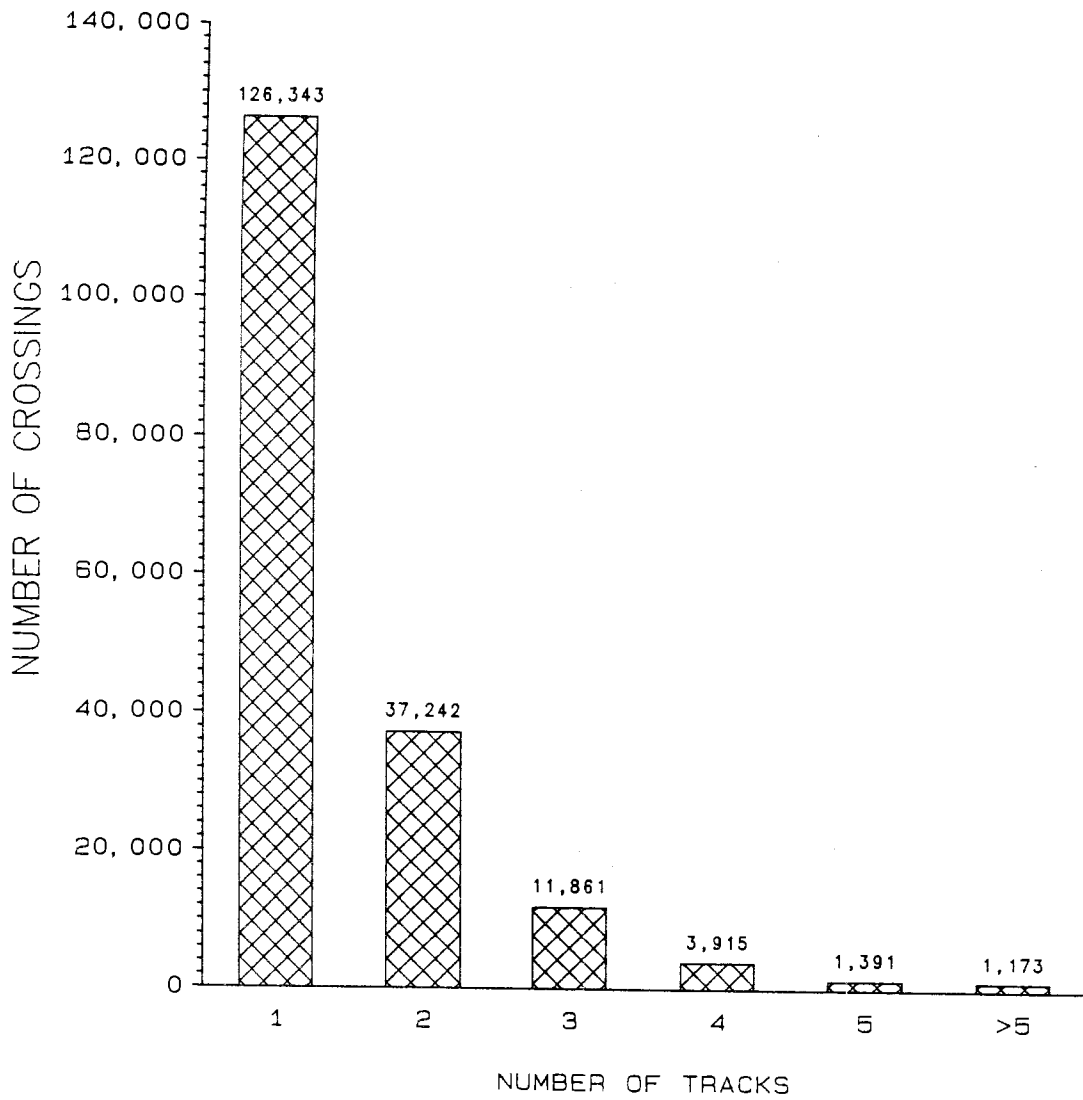


**FIGURE 26. CROSSINGS BY TYPE OF DEVELOPMENT**

**TRACK DATA**

**TABLE 36. TOTAL CROSSINGS BY NUMBER OF MAIN AND OTHER TRACKS**

Other Tracks	Number of main tracks							Total
	0	1	2	3	4	5	>5	
0	28	106,809	9,552	316	88	5	6	116,804
1	19,534	23,224	2,771	115	20	---	1	45,665
2	4,466	7,496	1,157	73	19	2	1	13,214
3	1,278	2,207	388	32	14	1	---	3,920
4	348	753	180	12	8	3	1	1,305
5	152	289	88	7	2	1	1	540
>5	141	279	78	1	3	1	2	505
Total	25,947	141,057	14,214	556	154	13	12	181,953



**FIGURE 27. CROSSINGS BY NUMBER OF TRACKS**

**TABLE 37. TOTAL CROSSINGS BY NUMBER OF TRACKS AND WARNING DEVICE CATEGORY**

Warning device	NUMBER OF TRACKS						Total
	1	2	3	4	5	>5	
Gates.....	10,012	8,828	3,519	1,329	501	446	24,635
Flashing lights.....	21,629	6,313	2,208	761	269	226	31,406
Hwy. signals, wigwags, bells	1,227	498	177	63	28	15	2,008
Special warning devices.....	4,013	1,101	361	131	57	61	5,724
Crossbucks.....	81,233	18,585	5,075	1,469	466	384	107,212
Stop signs.....	621	169	49	13	5	8	865
Other signs.....	458	134	38	19	10	8	667
No signs or signals.....	7,150	1,614	434	130	55	53	9,436
Total.....	126,343	37,242	11,861	3,915	1,391	1,201	181,953

**TABLE 38. TOTAL CROSSINGS BY NUMBER OF TRACKS AND TRAFFIC LANES**

Traffic Lanes	NUMBER OF TRACKS						Total
	1	2	3	4	5	>5	
1	23,108	4,596	846	216	51	61	28,878
2	95,640	29,912	10,036	3,342	1,205	1,018	141,153
3	721	325	108	36	11	13	1,214
4	6,027	2,175	799	301	115	102	9,519
5	360	103	30	10	4	2	509
>5	487	131	42	10	5	5	680
Total	126,343	37,242	11,861	3,915	1,391	1,201	181,953

TABLE 39. TOTAL CROSSINGS BY NUMBER OF TRACKS AND STATE

NUMBER OF TRACKS

State	1	2	3	4	5	>5	Total
Alabama.....	3,315	784	302	82	34	35	4,552
Alaska.....	179	36	6	---	---	1	222
Arizona.....	702	180	63	16	7	4	972
Arkansas.....	2,377	714	236	66	29	19	3,441
California.....	5,830	1,665	596	204	97	93	8,485
Colorado.....	1,617	436	120	35	18	14	2,240
Connecticut.....	374	93	22	8	4	---	501
Delaware.....	204	32	9	3	2	---	250
Dist of Columbia.	28	7	2	---	---	---	37
Florida.....	2,386	1,154	425	121	66	53	4,205
Georgia.....	4,922	1,248	363	126	33	37	6,729
Hawaii.....	6	---	---	---	---	---	6
Idaho.....	1,233	337	119	51	20	22	1,782
Illinois.....	6,491	2,959	937	322	107	92	10,908
Indiana.....	5,443	1,726	389	117	38	31	7,744
Iowa.....	4,165	1,222	474	154	48	46	6,109
Kansas.....	6,367	1,429	585	203	65	59	8,708
Kentucky.....	2,216	783	209	70	17	20	3,315
Louisiana.....	3,197	845	260	86	28	27	4,443
Maine.....	733	162	39	12	4	1	951
Maryland.....	587	149	26	12	4	4	782
Massachusetts.....	941	190	42	15	5	4	1,197
Michigan.....	4,373	1,377	347	139	46	48	6,330
Minnesota.....	4,175	1,072	388	116	43	40	5,834
Mississippi.....	1,756	518	175	73	23	25	2,570
Missouri.....	3,513	1,141	438	129	49	50	5,320
Montana.....	1,180	309	104	29	10	11	1,643
Nebraska.....	2,818	952	316	118	50	35	4,289
Nevada.....	191	71	17	5	3	5	292
New Hampshire.....	436	67	7	2	1	---	513
New Jersey.....	1,363	410	100	18	11	8	1,910
New Mexico.....	577	163	50	19	4	7	820
New York.....	2,319	804	184	56	16	18	3,397
North Carolina...	3,581	923	287	113	34	31	4,969
North Dakota.....	4,026	660	208	39	17	3	4,953
Ohio.....	4,810	2,577	791	325	101	66	8,670
Oklahoma.....	3,611	733	304	106	39	38	4,831
Oregon.....	1,930	481	174	31	12	2	2,630
Pennsylvania.....	3,802	1,424	379	148	45	39	5,837
Rhode Island.....	86	36	6	---	---	---	128
South Carolina...	2,802	749	190	39	20	13	3,813
South Dakota.....	1,757	276	110	38	8	7	2,196
Tennessee.....	2,718	882	277	85	31	31	4,024
Texas.....	10,034	2,369	746	259	91	83	13,582
Utah.....	740	218	75	19	19	9	1,080
Vermont.....	426	76	17	3	---	4	526
Virginia.....	1,613	597	188	64	19	11	2,492
Washington.....	2,262	582	237	73	22	21	3,197
West Virginia....	1,721	489	156	27	6	10	2,409
Wisconsin.....	4,006	1,006	327	122	41	24	5,526
Wyoming.....	385	124	39	17	4	---	569
Puerto Rico.....	19	5	---	---	---	---	24
Unknown.....	---	---	---	---	---	---	---
Total.....	126,343	37,242	11,861	3,915	1,391	1,261	181,953

TABLE 40. TOTAL CROSSINGS BY TYPE OF HIGHWAY SYSTEM AND STATE

State	01	02	03	04	08	Total
Alabama.....	---	218	423	350	3,561	4,552
Alaska.....	7	11	17	20	167	222
Arizona.....	12	29	185	72	674	972
Arkansas.....	2	138	1,038	167	2,096	3,441
California.....	---	1,009	951	641	5,884	8,485
Colorado.....	---	86	401	105	1,648	2,240
Connecticut.....	---	30	186	20	265	501
Delaware.....	---	33	11	111	95	250
Dist of Columbia.....	---	4	---	2	31	37
Florida.....	---	302	777	125	3,001	4,205
Georgia.....	3	420	167	812	5,327	6,729
Hawaii.....	---	---	---	---	---	6
Idaho.....	---	45	104	138	1,495	1,782
Illinois.....	---	654	1,448	822	7,984	10,908
Indiana.....	---	285	465	1,353	5,641	7,744
Iowa.....	3	350	794	550	4,412	6,109
Kansas.....	---	348	441	1,148	6,771	8,708
Kentucky.....	2	101	301	288	2,623	3,315
Louisiana.....	5	165	447	337	3,489	4,443
Maine.....	---	81	20	95	755	951
Maryland.....	---	38	42	44	658	782
Massachusetts.....	---	116	315	122	644	1,197
Michigan.....	4	280	745	960	4,341	6,330
Minnesota.....	1	218	117	920	4,578	5,834
Mississippi.....	---	118	379	247	1,826	2,570
Missouri.....	3	106	258	637	4,316	5,320
Montana.....	1	67	73	127	1,375	1,643
Nebraska.....	---	210	273	478	3,328	4,289
Nevada.....	---	18	12	24	238	292
New Hampshire.....	---	8	155	43	307	513
New Jersey.....	---	64	193	159	1,494	1,910
New Mexico.....	---	23	60	56	681	820
New York.....	---	201	20	586	2,590	3,397
North Carolina.....	---	111	210	367	4,281	4,969
North Dakota.....	1	185	113	540	4,114	4,953
Ohio.....	---	360	1,083	883	6,344	8,670
Oklahoma.....	---	153	312	396	3,970	4,831
Oregon.....	---	144	307	277	1,902	2,630
Pennsylvania.....	132	584	1,060	823	3,238	5,837
Rhode Island.....	---	6	47	14	61	128
South Carolina.....	1	261	235	446	2,870	3,813
South Dakota.....	---	99	90	265	1,742	2,196
Tennessee.....	---	171	14	370	3,469	4,024
Texas.....	84	360	1,459	858	10,821	13,582
Utah.....	1	16	5	140	918	1,080
Vermont.....	---	50	30	64	382	526
Virginia.....	---	104	335	395	1,658	2,492
Washington.....	---	109	179	439	2,470	3,197
West Virginia.....	---	146	50	411	1,802	2,409
Wisconsin.....	---	350	879	452	3,845	5,526
Wyoming.....	---	29	20	50	470	569
Puerto Rico.....	---	6	---	2	16	24
Unknown.....	---	---	---	---	---	---
Total.....	262	9,020	17,246	18,751	136,674	181,953

HIGHWAY SYSTEM CODES

Code System	Code System
01 Interstate	02 Federal-aid primary
03 Federal-aid urban	04 Federal-aid secondary
08 Non-federal-aid	

See Appendix A for explanation of revision in codes.



**TABLE 41. TOTAL CROSSINGS BY HIGHWAY SYSTEM GROUP AND STATE**

HIGHWAY SYSTEM GROUP			
State	On-State	Off-State	Total
Alabama.....	311	4,241	4,552
Alaska.....	80	142	222
Arizona.....	54	918	972
Arkansas.....	576	2,865	3,441
California.....	343	8,142	8,485
Colorado.....	251	1,989	2,240
Connecticut.....	90	411	501
Delaware.....	239	11	250
Dist of Columbia.....	36	1	37
Florida.....	475	3,730	4,205
Georgia.....	789	5,940	6,729
Hawaii.....	---	6	6
Idaho.....	123	1,659	1,782
Illinois.....	1,358	9,550	10,908
Indiana.....	708	7,036	7,744
Iowa.....	358	5,751	6,109
Kansas.....	479	8,229	8,708
Kentucky.....	930	2,385	3,315
Louisiana.....	972	3,471	4,443
Maine.....	189	762	951
Maryland.....	143	639	782
Massachusetts.....	45	1,152	1,197
Michigan.....	377	5,953	6,330
Minnesota.....	327	5,507	5,834
Mississippi.....	237	2,333	2,570
Missouri.....	727	4,593	5,320
Montana.....	244	1,399	1,643
Nebraska.....	325	3,964	4,289
Nevada.....	60	232	292
New Hampshire.....	116	397	513
New Jersey.....	187	1,723	1,910
New Mexico.....	177	643	820
New York.....	350	3,047	3,397
North Carolina.....	3,168	1,801	4,969
North Dakota.....	239	4,714	4,953
Ohio.....	1,170	7,500	8,670
Oklahoma.....	370	4,461	4,831
Oregon.....	165	2,465	2,630
Pennsylvania.....	1,895	3,942	5,837
Rhode Island.....	46	82	128
South Carolina.....	2,709	1,104	3,813
South Dakota.....	150	2,046	2,196
Tennessee.....	270	3,754	4,024
Texas.....	2,629	10,953	13,582
Utah.....	118	962	1,080
Vermont.....	129	397	526
Virginia.....	1,546	946	2,492
Washington.....	178	3,019	3,197
West Virginia.....	1,461	948	2,409
Wisconsin.....	436	5,090	5,526
Wyoming.....	84	485	569
Puerto Rico.....	19	5	24
Unknown.....	---	---	---
Total.....	28,458	153,495	181,953

**TABLE 42. TOTAL CROSSINGS BY FUNCTIONAL CLASSIFICATION OF ROAD AT RAIL-HIGHWAY CROSSING**

Rural	Crossings	Urban	Crossings
Interstate.....	28	Interstate.....	148
Other principal arterial	1,340	Other freeway/expressway	425
Minor arterial.....	3,950	Other principal arterial	6,862
Major collector.....	12,892	Minor arterial.....	12,035
Minor collector.....	10,751	Collector.....	11,899
Local.....	81,580	Local.....	40,043
Total.....	110,541	Total.....	71,412

**TABLE 43. TOTAL CROSSINGS BY NUMBER OF TRAFFIC LANES AND STATE**

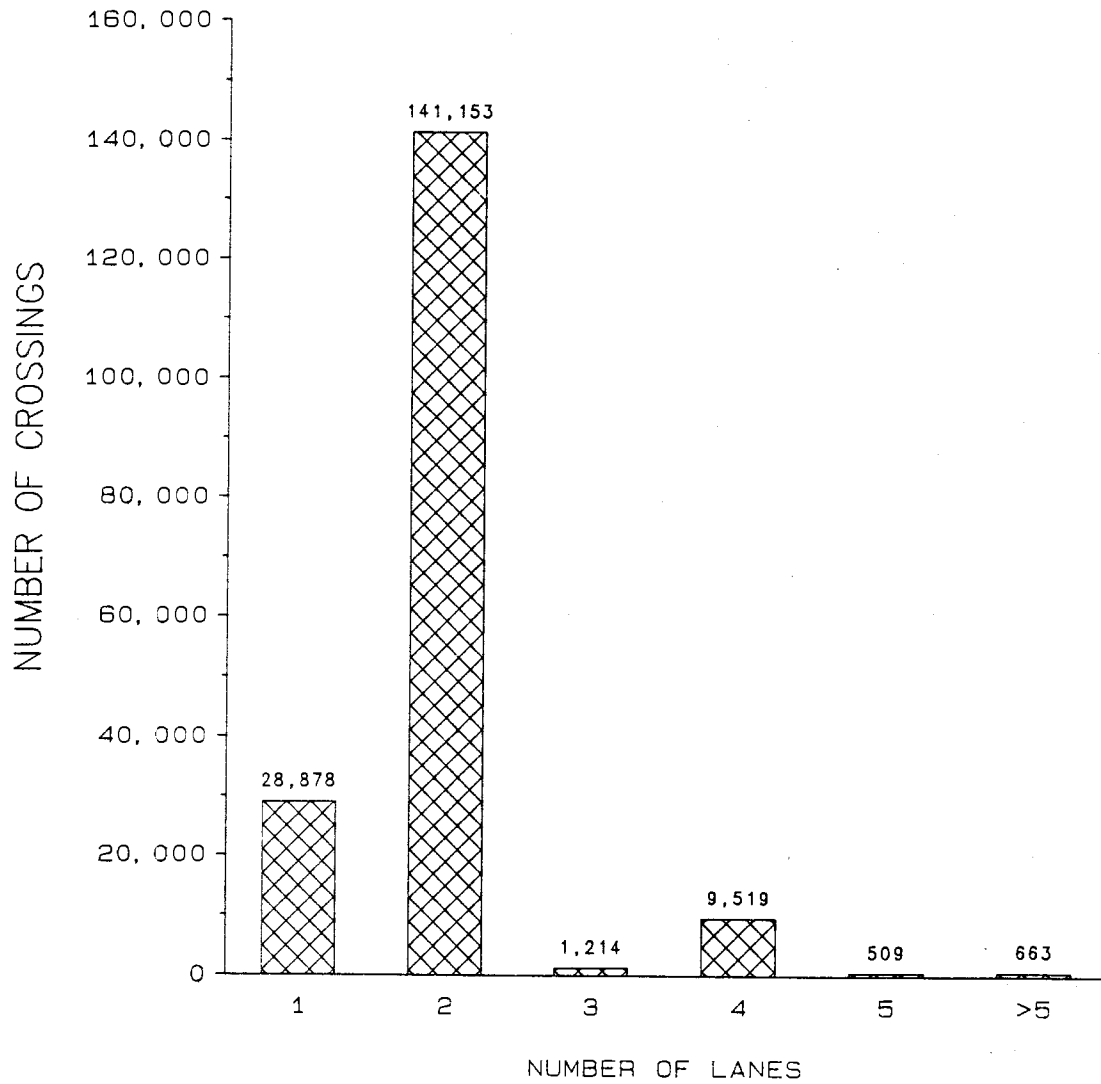
**NUMBER OF LANES (BOTH DIRECTIONS)**

State	1	2	3	4	5	>5	Total
Alabama.....	932	3,359	26	216	8	11	4,552
Alaska.....	12	192	2	14	2	---	222
Arizona.....	18	814	13	90	21	16	972
Arkansas.....	762	2,597	16	62	3	1	3,441
California.....	457	5,888	184	1,599	148	209	8,485
Colorado.....	186	1,879	22	136	11	6	2,240
Connecticut.....	28	440	8	22	3	---	501
Delaware.....	2	225	4	18	---	1	250
Dist of Columbia.	1	30	1	2	1	2	37
Florida.....	170	3,481	77	373	31	73	4,205
Georgia.....	1,369	5,112	29	206	6	7	6,729
Hawaii.....	---	6	---	---	---	---	6
Idaho.....	466	1,239	9	64	2	2	1,782
Illinois.....	2,257	7,903	47	669	11	21	10,908
Indiana.....	1,390	5,935	54	335	11	19	7,744
Iowa.....	730	5,112	44	214	5	4	6,109
Kansas.....	2,139	6,268	6	292	1	2	8,708
Kentucky.....	1,059	2,193	8	55	---	---	3,315
Louisiana.....	679	3,498	20	217	12	17	4,443
Maine.....	52	885	3	11	---	---	951
Maryland.....	82	638	7	45	3	7	782
Massachusetts.....	44	1,088	8	56	1	---	1,197
Michigan.....	448	5,234	58	516	33	41	6,330
Minnesota.....	920	4,629	16	264	3	2	5,834
Mississippi.....	312	2,158	8	86	2	4	2,570
Missouri.....	1,266	3,904	12	130	4	4	5,320
Montana.....	209	1,402	4	25	2	1	1,643
Nebraska.....	949	3,256	8	74	---	2	4,289
Nevada.....	100	164	1	26	---	1	292
New Hampshire.....	32	459	2	17	2	1	513
New Jersey.....	102	1,663	13	126	---	6	1,910
New Mexico.....	269	507	1	37	3	3	820
New York.....	319	2,929	23	119	3	4	3,397
North Carolina.....	284	4,436	36	191	13	9	4,969
North Dakota.....	1,104	3,816	1	32	---	---	4,953
Ohio.....	1,202	7,068	59	315	13	13	8,670
Oklahoma.....	900	3,658	6	260	4	3	4,831
Oregon.....	327	2,139	53	84	24	3	2,630
Pennsylvania.....	897	4,606	121	184	2	27	5,837
Rhode Island.....	2	102	---	24	---	---	128
South Carolina.....	438	3,121	4	236	5	9	3,813
South Dakota.....	661	1,488	---	40	4	3	2,196
Tennessee.....	738	3,039	20	204	15	8	4,024
Texas.....	2,343	9,868	74	1,140	56	101	13,582
Utah.....	208	800	---	66	1	5	1,080
Vermont.....	118	396	5	7	---	---	526
Virginia.....	33	2,321	22	95	10	11	2,492
Washington.....	291	2,581	58	228	29	10	3,197
West Virginia.....	1,210	1,178	9	11	---	1	2,409
Wisconsin.....	237	5,014	10	255	---	10	5,526
Wyoming.....	123	412	2	31	1	---	569
Puerto Rico.....	1	23	---	---	---	---	24
Unknown.....	---	---	---	---	---	---	---
Total.....	28,878	141,153	1,214	9,519	509	680	181,953

**TABLE 41. TOTAL CROSSINGS BY NUMBER OF TRAFFIC LANES AND WARNING DEVICE CATEGORY**

**NUMBER OF LANES (BOTH DIRECTIONS)**

Warning device	1	2	3	4	5	>5	Total
Gates.....	513	20,042	381	3,158	249	292	24,635
Flashing lights.....	747	26,462	355	3,432	183	227	31,406
Hwy. signals, wigwags, bells	154	1,539	47	222	13	33	2,008
Special warning devices.....	391	4,673	110	501	18	31	5,724
Crossbucks.....	24,417	80,667	245	1,768	36	79	107,212
Stop signs.....	164	671	4	24	---	2	865
Other signs.....	149	493	3	20	---	2	667
No signs or signals.....	2,343	6,606	69	394	10	14	9,436
Total.....	28,878	141,153	1,214	9,519	509	680	181,953



**FIGURE 28. CROSSINGS BY NUMBER OF TRAFFIC LANES**

**WARNING DEVICE DATA**

**TABLE 45. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND STATE**

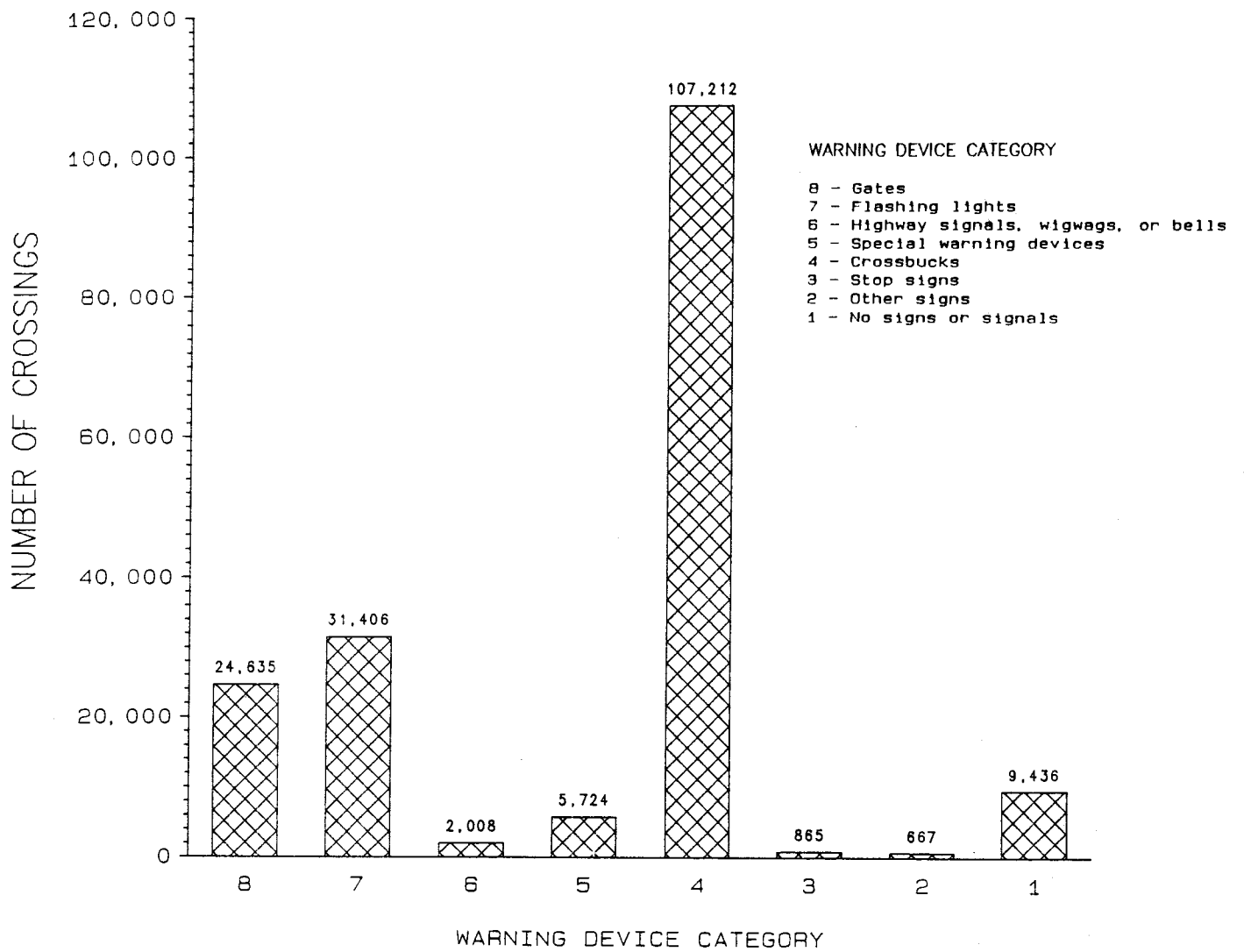
State	WARNING DEVICE CATEGORY								Total
	Gates	Flashing Lights	Hwy. Sig. Wigwags Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs or Signals	
Alabama.....	222	633	22	55	3,125	68	10	417	4,552
Alaska.....	14	59	---	9	119	5	---	16	222
Arizona.....	283	82	10	71	495	3	---	28	972
Arkansas.....	263	470	24	77	2,461	5	---	141	3,441
California.....	3,054	1,139	351	178	3,518	52	18	175	8,485
Colorado.....	239	322	40	38	1,481	7	3	110	2,240
Connecticut.....	71	162	7	88	62	8	2	101	501
Delaware.....	30	130	2	22	60	---	---	6	250
Dist of Columbia.....	---	4	---	4	20	5	1	3	37
Florida.....	1,965	713	24	111	1,288	20	8	76	4,205
Georgia.....	1,267	441	17	167	4,414	8	9	406	6,729
Hawaii.....	---	---	---	---	6	---	---	---	6
Idaho.....	77	200	9	20	1,249	70	5	152	1,782
Illinois.....	1,924	2,685	158	267	5,414	1	4	455	10,908
Indiana.....	987	1,931	120	212	4,243	19	11	221	7,744
Iowa.....	559	1,041	58	76	4,172	5	3	195	6,109
Kansas.....	556	763	86	208	6,894	2	2	197	8,708
Kentucky.....	334	859	17	90	1,672	6	---	337	3,315
Louisiana.....	281	792	17	64	2,825	29	25	410	4,443
Maine.....	68	372	1	106	396	---	---	7	951
Maryland.....	93	215	21	37	364	6	1	39	782
Massachusetts.....	188	452	38	227	236	8	3	51	1,197
Michigan.....	718	1,578	49	159	3,720	2	3	95	6,330
Minnesota.....	484	717	13	34	4,365	35	2	184	5,834
Mississippi.....	67	351	10	38	1,683	182	12	227	2,570
Missouri.....	398	1,084	86	110	3,351	13	1	277	5,320
Montana.....	139	198	2	17	1,207	4	1	75	1,643
Nebraska.....	494	379	10	14	3,203	15	1	173	4,289
Nevada.....	90	26	1	5	160	1	1	8	292
New Hampshire.....	31	143	11	115	181	7	7	18	513
New Jersey.....	394	645	27	289	435	6	2	112	1,910
New Mexico.....	154	102	6	11	524	---	5	18	820
New York.....	1,234	724	75	268	980	3	25	88	3,397
North Carolina.....	761	754	12	234	2,739	18	18	433	4,969
North Dakota.....	303	146	1	2	4,268	3	---	230	4,953
Ohio.....	1,065	1,987	63	101	5,145	12	13	284	8,670
Oklahoma.....	330	761	30	116	3,464	3	8	119	4,831
Oregon.....	530	152	58	106	1,456	67	62	201	2,630
Pennsylvania.....	692	1,271	123	681	2,189	80	304	497	5,837
Rhode Island.....	15	32	20	23	11	5	---	22	128
South Carolina.....	342	537	3	286	2,480	3	12	150	3,813
South Dakota.....	10	169	3	---	1,929	1	1	83	2,196
Tennessee.....	231	649	19	260	2,075	26	2	762	4,024
Texas.....	1,915	2,274	79	113	8,396	24	14	767	13,582
Utah.....	114	191	11	96	567	3	45	53	1,080
Vermont.....	28	205	4	39	249	---	---	1	526
Virginia.....	590	512	19	192	1,009	1	4	165	2,492
Washington.....	324	446	35	52	1,992	11	4	333	3,197
West Virginia.....	176	457	7	40	1,408	8	5	308	2,409
Wisconsin.....	429	1,313	206	176	3,214	3	2	183	5,526
Wyoming.....	98	137	2	2	300	2	1	27	569
Puerto Rico.....	4	1	1	18	---	---	---	---	24
Unknown.....	---	---	---	---	---	---	---	---	---
<b>Total.....</b>	<b>24,635</b>	<b>31,406</b>	<b>2,008</b>	<b>5,724</b>	<b>107,212</b>	<b>865</b>	<b>667</b>	<b>9,436</b>	<b>181,953</b>

NOTE: "Special" are warning systems that are not train activated, such as, a crossing being flagged by a member of the train crew.

**TABLE 46. TOTAL CROSSINGS BY WARNING DEVICE CATEGORY AND RAILROAD**

**WARNING DEVICE CATEGORY**

Railroad	Gates	Flashing Lights	Hwy. Sig. Hgways Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
AFLR	Alabama And Florida Railroad	2	9	0	0	121	0	0	143
ARR	Alaska Railroad Corporation	14	59	0	0	116	5	0	218
ATK	Allegheny Railroad	16	43	2	0	58	9	8	138
ATK	Amtrak (National Railroad Passenger Corp)	117	11	0	8	22	0	4	164
AM	Arkansas And Missouri Railroad Company	4	34	4	3	197	0	10	252
ATSF	Atchafalaya, Topeka And Santa Fe Railway Co.)	1,922	1,499	167	466	7,118	7	10	11,233
ASAB	Atlanta & Saint Andrews Bay Railway Company	21	34	0	0	76	2	3	137
AUNM	Austin And Northwestern Railroad	26	27	1	0	99	1	0	167
BOCT	Baltimore & Ohio Chicago Terminal Railroad	55	49	1	19	20	0	0	148
BAR	Bangor And Aroostook Railroad	4	87	0	8	68	0	0	167
BLE	Bessemer & Lake Erie Railroad Company	36	29	0	2	71	0	0	140
BLOL	Bloomer Shippers Connecting Railroad Co.	0	2	0	0	101	0	0	104
BH	Boston And Maine Corporation	211	231	22	196	277	1	4	992
BN	Burlington Northern Railroad Company	2,326	2,583	108	243	14,186	94	35	20,348
CSP	Camas Prairie Railroad Company	4	8	0	0	100	0	0	112
CH	Canadian National Railways	15	59	0	3	113	0	0	190
CIC	Cedar Rapids And Iowa City Railway Company	1	28	0	15	50	0	0	101
CVAR	Cedar Valley Railroad	2	24	1	0	148	0	0	175
CMGH	Central Michigan Railway Company	14	162	5	29	262	0	0	476
CV	Central Vermont Railway, Inc.	21	112	1	0	74	1	1	212
CIM	Chicago & Illinois Midland Railway Company	6	43	1	1	59	0	0	110
CIIN	Chicago And North Western Transportation Co	700	1,406	217	105	4,547	6	4	7,268
CMNM	Chicago Missouri & Western Railway	105	164	34	4	326	0	0	646
CSS	Chicago South Shore And South Bend Railroad	35	44	7	0	38	1	0	126
CC	Chicago, Central & Pacific Railroad Company	62	261	16	34	517	2	0	931
CAGY	Columbus And Greenville Railway Company	3	51	0	5	257	14	0	337
CR	Consolidated Rail Corporation	2,550	3,989	228	1,198	5,825	83	296	15,183
CSX	CSX Transportation	3,856	4,845	123	780	14,437	94	32	25,696
DHE	Dakota, Minnesota & Eastern Railroad	6	110	3	0	724	0	0	843
DH	Dallas And Western Railroad Company	156	98	3	9	84	1	5	363
DRGH	Denver And Rio Grande Western Railroad Co.	91	183	2	8	542	3	3	890
DOD	Department Of Defense	36	66	2	61	122	1	15	314
DM	Detroit And Mackinac Railway Company	0	62	4	0	365	0	0	431
DMIR	Duluth, Missabe And Iron Range Railway Co.	8	38	0	3	144	1	0	195
EJE	Elgin, Joliet And Eastern Railway Company	77	65	2	10	47	0	0	201
ELS	Escanaba And Lake Superior Railroad Company	3	65	1	45	149	0	1	268
FCEN	Florida Central Railroad Co.	19	14	0	1	83	0	0	118
FEC	Florida East Coast Railway Company	598	30	0	27	40	0	0	702
GHH	Galveston, Houston & Henderson Railroad Co.	25	30	0	0	26	1	0	105
GSF	Georgia Southern & Florida Company	30	13	0	6	70	1	0	145
GHBC	Grainbelt Corporation	0	0	0	0	217	0	0	230
GHI	Grand Trunk Western Railroad Company	366	292	4	48	479	1	0	1,196
GHN	Green Bay And Western Railroad Company	8	85	0	0	223	0	0	319
GSMR	Gulf And Mississippi Railroad Corporation	1	59	0	1	551	33	2	677
HCRC	Hillsdale County Railway Company, Inc.	0	24	2	0	98	0	2	127
HBT	Houston Belt & Terminal Railway Company	64	36	2	0	83	0	0	209
HESR	Huron & Eastern Railway	0	7	0	0	102	0	0	112
IC	Illinois Central Railroad Company	268	516	32	63	1,570	52	5	2,679
IHRC	Indiana Hi-Rail Corporation	4	68	12	0	144	1	0	235
INRD	Indiana Rail Road Company	0	20	9	0	90	0	0	125
IAIS	Iowa Interstate Railroad	97	64	9	0	284	0	0	457
IARR	Iowa Northern Railway Company	6	33	0	0	152	0	0	221
KCS	Kansas City Southern Railway Company	48	186	3	0	707	0	6	1,027
LI	Long Island Rail Road	298	0	0	0	7	0	0	306
LA	Louisiana & Arkansas Railway Company	30	174	0	0	487	0	0	722
LDRR	Louisiana & Delta Railroad	22	11	1	0	175	2	0	246
MEC	Maine Central Railroad Company	9	45	0	28	59	0	0	141
MDDE	Maryland And Delaware Railroad Company	0	20	0	5	81	0	0	106
MFA	Maryland And Pennsylvania Railroad Company	18	17	0	0	59	0	5	109
MDT	Maryland Dept. Of Transportation	0	24	6	4	66	4	1	112
MSRC	Mid South Rail Corp.	8	88	3	0	296	38	0	485
MRR	Mid-Atlantic Railroad Company, Incorporated	4	7	0	3	96	0	0	114
MMRR	Mid-Michigan Railroad Company	3	25	4	1	89	0	0	124
MGPA	Midd States Port Authority	14	31	1	0	360	0	1	418
MHHR	Minnesota Commercial Railway	1	16	0	0	71	0	0	101
MHVA	Minnesota Valley Transportation Company, Inc	0	2	0	0	99	0	0	104
MKT	Missouri-Kansas-Texas Railroad Company	247	375	15	4	1,233	2	1	1,984
MRL	Montana Rail Link	48	69	1	0	320	2	0	456
NERR	Nashville & Eastern Railroad	0	26	1	1	148	0	0	195
NJTR	New Jersey Transit Rail Operations	213	109	1	11	35	0	0	377
NOPB	New Orleans Public Belt Railroad	0	0	0	0	8	0	0	117
NYSM	New York, Susquehanna And Western Railroad	74	13	15	13	36	5	17	225
NH	Norfolk And Western Railway Company	1,035	1,711	80	160	3,923	8	7	7,119
NHP	Northwestern Pacific Railroad Company	67	17	5	0	50	0	0	122
ODOT	Oklahoma Department Of Transportation	25	91	0	0	566	0	0	739
OKKT	Oklahoma Kansas & Texas Railroad Company	19	48	0	0	225	0	0	303
OIVR	Otter Tail Valley Railroad Co., Inc.	10	30	0	0	130	1	0	178
PAL	Paducah & Louisville Railway Company	17	91	5	0	160	1	0	287
PLE	Pittsburgh & Lake Erie Railroad Company	18	10	2	3	62	0	0	109
PACY	Prairie Central Railway Company	0	16	2	0	88	0	0	106
PARY	Prairie Trunk Railway	1	35	0	0	231	0	0	273
PH	Providence And Worcester Railroad Company	23	79	6	19	24	3	0	174
RRWH	Red River Valley & Western Railroad	13	22	0	0	662	1	0	750
SGLR	Seminole Gulf Railroad	46	34	0	0	67	0	0	159
SOD	Soo Line Railroad Company	477	710	49	100	3,719	11	0	5,318
SCRF	South Carolina Central Railroad Co.	1	16	0	21	99	0	0	142
SDRR	South Dakota Railroad Authority	2	10	0	0	274	0	0	322
SEPA	Southeastern Pennsylvania Transp. Authority	50	77	21	18	33	16	2	262
SP	Southern Pacific Transportation Company	3,059	1,198	304	36	4,958	56	19	10,096
SOU	Southern Railway Company	1,541	1,668	34	453	6,892	30	27	12,064
SI	Spokane International Railroad Company	9	11	1	0	118	9	1	163
ST	Springfield Terminal Railroad Company	35	163	1	41	120	0	1	365
SSW	St. Louis Southwestern Railway Company	228	301	7	10	1,561	3	0	2,233
SUB	State Subsidy	5	111	26	16	152	3	10	333
TRRA	Terminal Railroad Association Of St. Louis	42	16	2	66	32	1	0	162
TH	Texas Mexican Railway Company	1	62	0	11	157	1	0	240
THRY	Traverse Bay Railway Company	6	0	0	0	85	0	0	108
TSBY	Tuscola And Saginaw Bay Railroad Company, In	1	2	0	1	511	0	0	604
UP	Union Pacific Railroad Company	1,948	2,797	145	242	12,964	85	66	19,397
WC	Wisconsin Central Ltd.	83	471	2	28	1,260	2	1	1,883
WCRC	Washington Central Railroad Company	26	43	4	0	256	0	0	350
WICT	Wisconsin Calumet Railroad	1	79	20	7	295	0	0	421
WSRY	Wisconsin And Southern Railway Company	1	23	4	0	116	0	0	152
WH	Winchester And Western Railroad Company	1	28	1	25	61	0	0	117
ALL OTHER RAILROADS		808	2,123	179	987	7,272	156	71	12,332
FINAL TOTALS		24,635	31,406	2,008	5,724	107,212	865	667	181,953



**FIGURE 29. CROSSINGS BY WARNING DEVICE CATEGORY**



**TABLE 47. TOTAL CROSSINGS BY PAVEMENT MARKINGS AND STATE**

**PAVEMENT MARKING**

State	Stop Lines	RR X-ing Symbol	Both	None		Total
				Paved	Unpaved	
Alabama.....	45	138	217	3,083	1,069	4,552
Alaska.....	4	10	39	79	90	222
Arizona.....	40	18	373	286	255	972
Arkansas.....	57	117	259	1,752	1,256	3,441
California.....	1,056	212	4,905	1,991	321	8,485
Colorado.....	23	38	249	1,088	842	2,240
Connecticut.....	18	5	102	370	6	501
Delaware.....	3	22	122	95	8	250
Dist of Columbia.	---	---	23	14	---	37
Florida.....	283	380	1,892	1,183	467	4,205
Georgia.....	62	108	2,889	1,886	1,784	6,729
Hawaii.....	2	---	---	4	---	6
Idaho.....	4	5	287	781	705	1,782
Illinois.....	70	133	1,310	4,597	4,798	10,908
Indiana.....	113	445	1,285	4,676	1,225	7,744
Iowa.....	56	150	576	2,345	2,982	6,109
Kansas.....	5	30	848	2,349	5,476	8,708
Kentucky.....	52	440	654	1,312	857	3,315
Louisiana.....	39	242	600	2,404	1,158	4,443
Maine.....	1	3	575	284	88	951
Maryland.....	9	35	255	431	52	782
Massachusetts....	54	45	119	945	34	1,197
Michigan.....	88	115	820	3,558	1,749	6,330
Minnesota.....	130	177	498	2,175	2,854	5,834
Mississippi.....	22	35	418	1,409	686	2,570
Missouri.....	78	108	597	2,277	2,260	5,320
Montana.....	5	9	99	483	1,047	1,643
Nebraska.....	32	274	190	1,067	2,726	4,289
Nevada.....	4	4	105	65	114	292
New Hampshire....	9	28	59	364	53	513
New Jersey.....	36	200	155	1,417	102	1,910
New Mexico.....	5	21	43	348	403	820
New York.....	126	198	399	2,386	288	3,397
North Carolina...	40	19	3,715	566	629	4,969
North Dakota.....	17	15	145	663	4,113	4,953
Ohio.....	561	677	4,190	2,530	712	8,670
Oklahoma.....	26	89	141	2,376	2,199	4,831
Oregon.....	377	948	147	638	520	2,630
Pennsylvania.....	65	357	148	4,633	634	5,837
Rhode Island.....	---	---	81	47	---	128
South Carolina...	97	118	1,157	1,857	584	3,813
South Dakota.....	23	6	143	553	1,471	2,196
Tennessee.....	17	30	232	2,814	931	4,024
Texas.....	23	15	6,335	3,640	3,569	13,582
Utah.....	14	21	160	644	241	1,080
Vermont.....	38	10	98	225	155	526
Virginia.....	103	95	1,104	939	251	2,492
Washington.....	124	66	567	1,776	664	3,197
West Virginia....	26	16	106	1,460	801	2,409
Wisconsin.....	70	39	499	4,227	691	5,526
Wyoming.....	7	23	55	155	329	569
Puerto Rico.....	3	7	---	12	2	24
Unknown.....	---	---	---	---	---	---
Total.....	4,162	6,296	39,985	77,259	54,251	181,953

NOTE: The Manual On Uniform Traffic Control Devices does not require pavement markings at all crossings.

**TABLE 48. TOTAL CROSSINGS BY RAILROAD ADVANCE WARNING AND STATE**

**RAILROAD ADVANCE WARNING**

State	Yes	No	Total
Alabama.....	938	3,614	4,552
Alaska.....	139	83	222
Arizona.....	552	420	972
Arkansas.....	910	2,531	3,441
California.....	6,748	1,737	8,485
Colorado.....	1,200	1,040	2,240
Connecticut.....	242	259	501
Delaware.....	218	32	250
Dist of Columbia.....	22	15	37
Florida.....	2,618	1,587	4,205
Georgia.....	3,301	3,428	6,729
Hawaii.....	1	5	6
Idaho.....	1,523	259	1,782
Illinois.....	5,582	5,326	10,908
Indiana.....	6,552	1,192	7,744
Iowa.....	4,078	2,031	6,109
Kansas.....	3,914	4,794	8,708
Kentucky.....	1,037	2,278	3,315
Louisiana.....	2,749	1,694	4,443
Maine.....	933	18	951
Maryland.....	480	302	782
Massachusetts.....	883	314	1,197
Michigan.....	4,529	1,801	6,330
Minnesota.....	3,573	2,261	5,834
Mississippi.....	641	1,929	2,570
Missouri.....	1,291	4,029	5,320
Montana.....	862	781	1,643
Nebraska.....	2,999	1,290	4,289
Nevada.....	225	67	292
New Hampshire.....	300	213	513
New Jersey.....	865	1,045	1,910
New Mexico.....	167	653	820
New York.....	2,662	735	3,397
North Carolina.....	3,847	1,122	4,969
North Dakota.....	1,709	3,244	4,953
Ohio.....	5,448	3,222	8,670
Oklahoma.....	1,305	3,526	4,831
Oregon.....	973	1,657	2,630
Pennsylvania.....	2,156	3,681	5,837
Rhode Island.....	81	47	128
South Carolina.....	2,321	1,492	3,813
South Dakota.....	1,481	715	2,196
Tennessee.....	681	3,343	4,024
Texas.....	10,421	3,161	13,582
Utah.....	534	546	1,080
Vermont.....	439	87	526
Virginia.....	1,767	725	2,492
Washington.....	2,299	898	3,197
West Virginia.....	536	1,873	2,409
Wisconsin.....	3,308	2,218	5,526
Wyoming.....	299	270	569
Puerto Rico.....	17	7	24
Unknown.....	---	---	---
Total.....	102,356	79,597	181,953

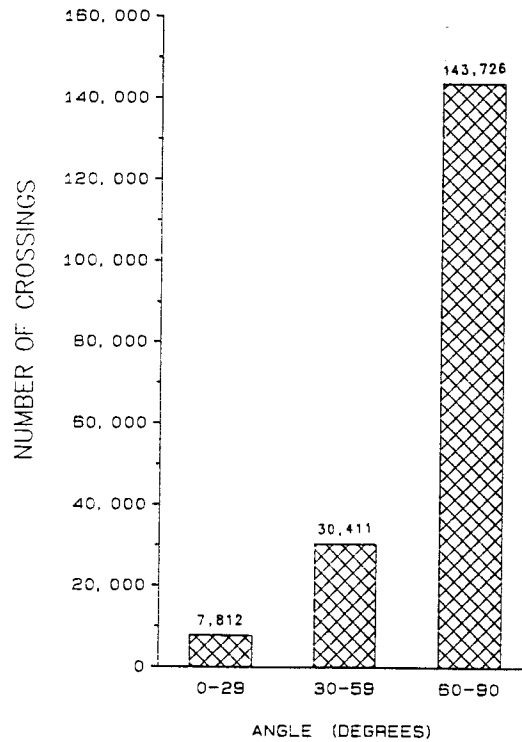
NOTE: The Manual On Uniform Traffic Control Devices does not require pavement markings at all crossings.

**TABLE 49. TOTAL CROSSINGS MEETING THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' STANDARD FOR CROSSBUCKS BY STATE**

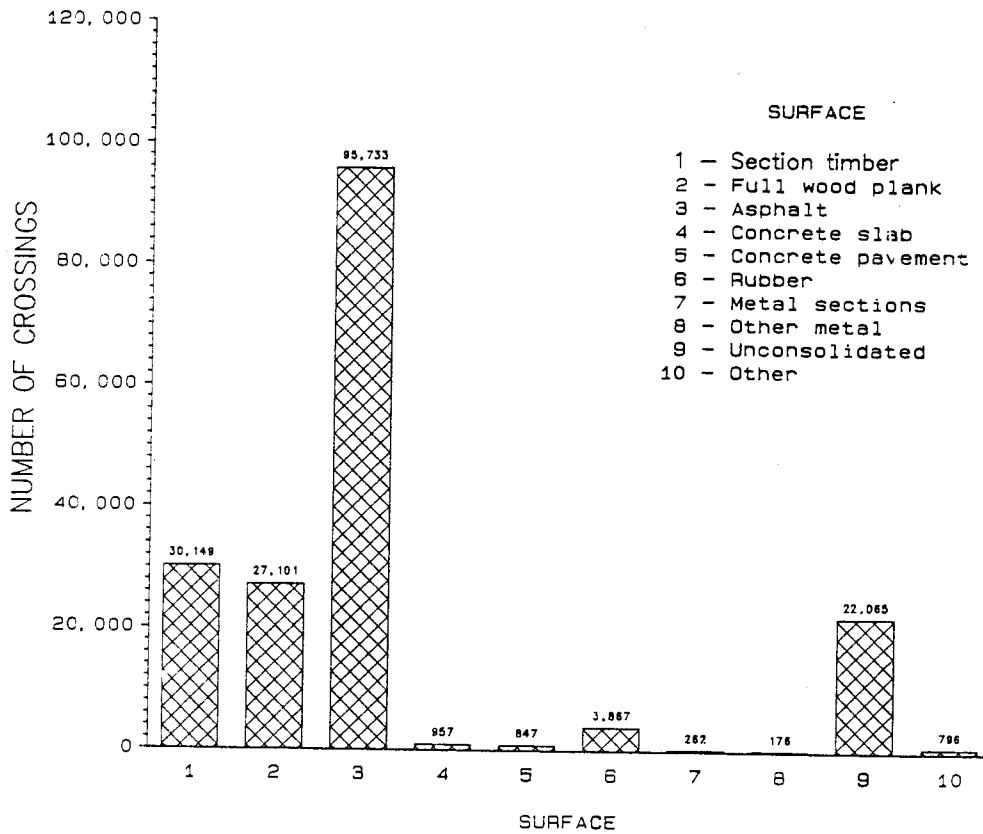
State	Active Warning	X-buck meet standards		Total
		Yes	No	
Alabama.....	877	1,624	2,051	4,552
Alaska.....	73	67	82	222
Arizona.....	375	473	124	972
Arkansas.....	757	1,893	791	3,441
California.....	4,544	1,792	2,149	8,485
Colorado.....	601	1,140	499	2,240
Connecticut.....	240	111	150	501
Delaware.....	162	62	26	250
Dist of Columbia.	4	20	13	37
Florida.....	2,702	1,066	437	4,205
Georgia.....	1,725	3,913	1,091	6,729
Hawaii.....	---	4	2	6
Idaho.....	286	874	622	1,782
Illinois.....	4,767	4,742	1,399	10,908
Indiana.....	3,038	3,856	850	7,744
Iowa.....	1,658	3,295	1,156	6,109
Kansas.....	1,405	3,114	4,189	8,708
Kentucky.....	1,210	1,353	752	3,315
Louisiana.....	1,090	2,533	820	4,443
Maine.....	441	478	32	951
Maryland.....	329	222	231	782
Massachusetts....	678	304	215	1,197
Michigan.....	2,345	3,618	367	6,330
Minnesota.....	1,214	4,110	510	5,834
Mississippi.....	428	1,341	801	2,570
Missouri.....	1,568	1,931	1,821	5,320
Montana.....	339	925	379	1,643
Nebraska.....	883	2,924	482	4,289
Nevada.....	117	98	77	292
New Hampshire....	185	213	115	513
New Jersey.....	1,066	332	512	1,910
New Mexico.....	262	303	255	820
New York.....	2,033	964	400	3,397
North Carolina...	1,527	1,788	1,654	4,969
North Dakota.....	450	3,014	1,489	4,953
Ohio.....	3,115	3,088	2,467	8,670
Oklahoma.....	1,121	1,871	1,839	4,831
Oregon.....	740	1,226	664	2,630
Pennsylvania.....	2,086	1,333	2,418	5,837
Rhode Island.....	67	2	59	128
South Carolina...	882	2,306	625	3,813
South Dakota.....	182	1,822	192	2,196
Tennessee.....	899	1,156	1,969	4,024
Texas.....	4,268	4,215	5,099	13,582
Utah.....	316	452	312	1,080
Vermont.....	237	273	16	526
Virginia.....	1,121	883	488	2,492
Washington.....	805	1,390	1,002	3,197
West Virginia....	640	913	856	2,409
Wisconsin.....	1,948	2,507	1,071	5,526
Wyoming.....	237	206	126	569
Puerto Rico.....	6	6	12	24
Unknown.....	---	---	---	---
Total.....	58,049	78,146	45,758	181,953

NOTE: The manual requires two reflectorized crossbucks to be placed at all crossings.

For crossings with active warning devices, a determination has not been made as to whether crossbucks which are part of the device meet the MUTCD standard.



**FIGURE 30. CROSSINGS BY SMALLEST CROSSING ANGLE**



**FIGURE 31. CROSSINGS BY CROSSING SURFACE**

TABLE 50. TOTAL CROSSINGS BY TOTAL NUMBER OF TRAINS PER DAY

Trains	Crossings
<1	28,427
1-5	81,779
6-10	31,359
11-15	12,063
16-20	11,566
21-25	5,747
26-30	3,555
31-35	2,015
36-40	1,360
41-45	1,187
46-50	692
51-55	657
56-60	425
61-65	244
66-70	118
71-75	108
76-80	262
81-85	51
86-90	25
91-95	13
96-100	53
>100	247
Total	181,953

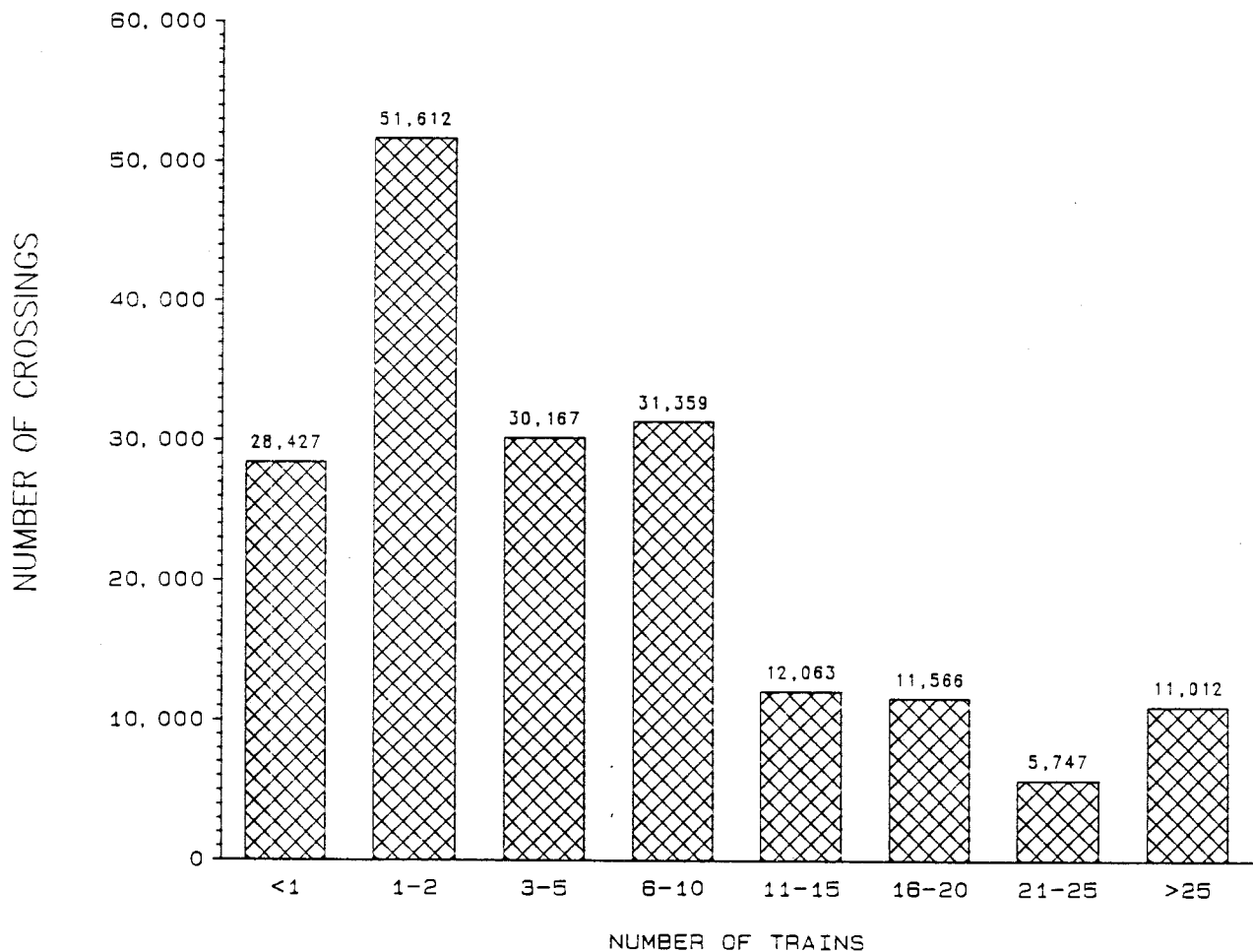


FIGURE 32. CROSSINGS BY TOTAL NUMBER OF TRAINS PER DAY

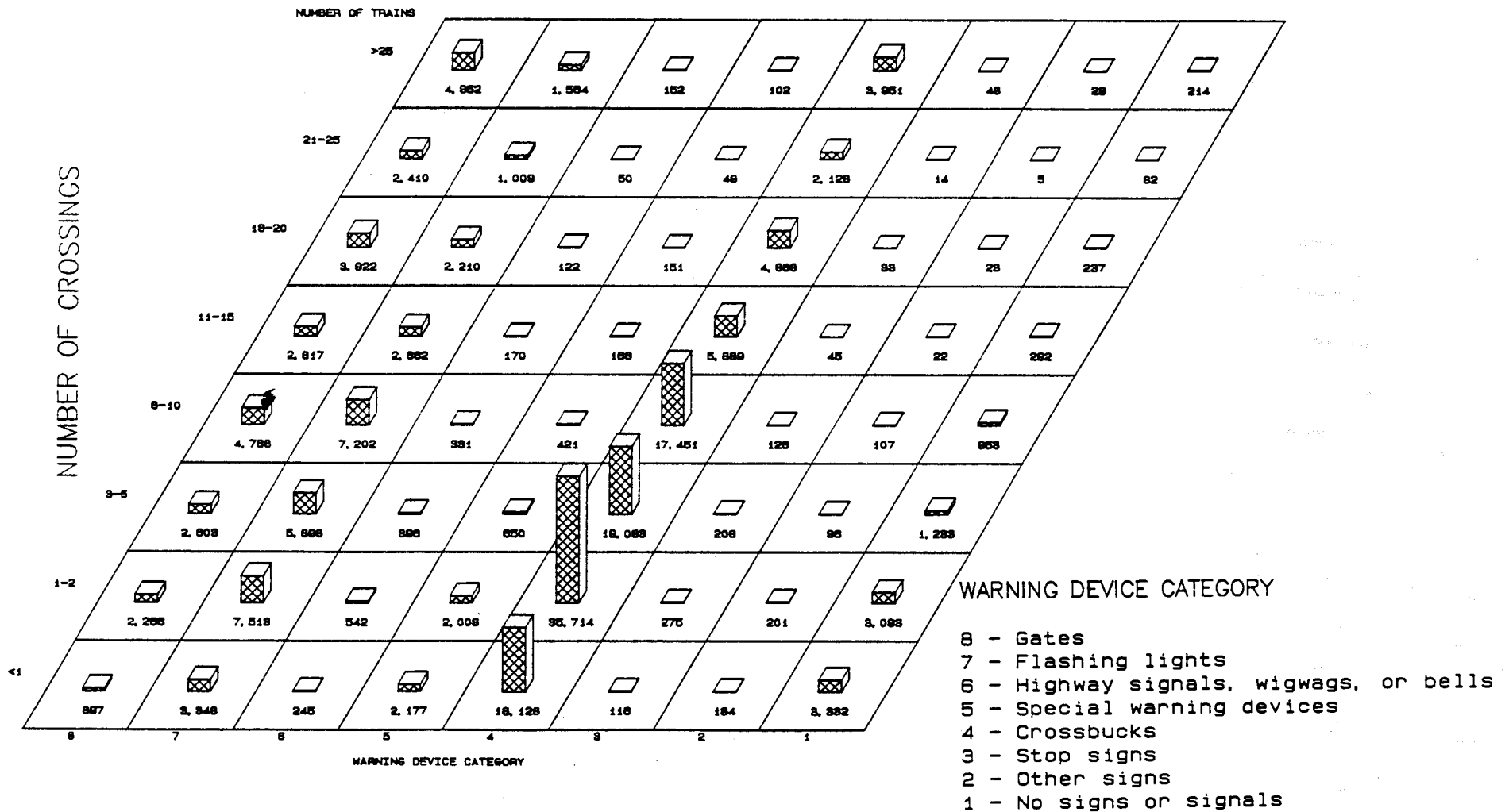


FIGURE 33. CROSSINGS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE CATEGORY

**TABLE 51. TOTAL CROSSINGS BY NUMBER OF THRU TRAINS AND SWITCHING TRAINS PER DAY**

Switching Trains	Through trains								Total
	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	
<1	28,427	28,383	13,380	12,553	4,695	4,841	2,158	3,255	97,692
1-2	21,292	9,894	7,083	6,795	2,804	2,413	1,057	2,054	53,392
2-3	6,014	1,793	2,284	3,389	1,432	772	334	1,371	17,389
6-10	2,734	776	841	1,531	966	1,041	383	750	9,022
11-15	533	111	149	270	279	82	88	361	1,873
16-20	452	112	102	185	206	85	181	172	1,495
21-25	129	43	28	39	34	21	23	62	379
>25	221	70	54	120	61	43	38	104	711
<b>Total</b>	<b>59,802</b>	<b>41,182</b>	<b>23,921</b>	<b>24,882</b>	<b>10,477</b>	<b>9,298</b>	<b>4,262</b>	<b>8,129</b>	<b>181,953</b>

**TABLE 52. TOTAL CROSSINGS BY NUMBER OF DAY AND NIGHT TRAINS PER DAY**

Day Trains	Night trains							Total	
	<1	1-2	3-5	6-10	11-15	16-20	21-25		>25
<1	28,427	7,547	1,000	246	9	7	6	4	37,246
1-2	30,926	29,095	3,473	466	24	9	1	3	63,997
2-3	5,198	10,986	16,784	1,949	168	156	37	2	35,280
6-10	1,596	2,372	6,511	14,537	1,456	72	44	10	26,598
11-15	184	157	623	3,578	4,985	719	23	24	10,293
16-20	78	28	130	475	1,209	1,713	375	34	6,042
21-25	40	27	10	115	360	523	687	182	1,944
>25	71	12	11	68	208	286	653	1,244	2,553
<b>Total</b>	<b>66,520</b>	<b>50,224</b>	<b>28,542</b>	<b>21,434</b>	<b>8,419</b>	<b>3,485</b>	<b>1,826</b>	<b>1,503</b>	<b>181,953</b>

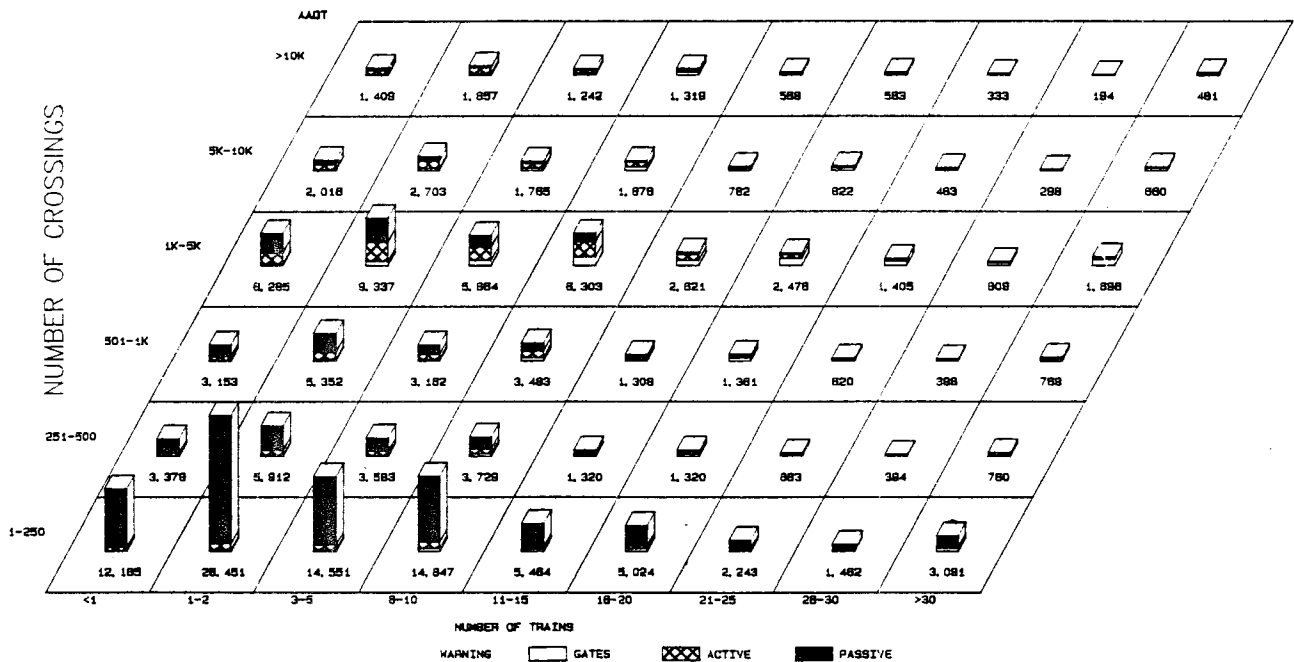
**TABLE 53. TOTAL CROSSINGS BY NUMBER OF TRAINS PER DAY AND WARNING DEVICE CATEGORY**

Warning device	NUMBER OF TRAINS								Total
	<1	1-2	3-5	6-10	11-15	16-20	21-25	>25	
Gates.....	897	2,266	2,603	4,768	2,817	3,922	2,410	4,952	24,635
Flashing lights.....	3,348	7,513	5,898	7,202	2,662	2,210	1,009	1,564	31,406
Hwy. signals, wigwags, bells	245	542	396	331	170	122	50	152	2,008
Special warning devices.....	2,177	2,008	650	421	166	151	49	102	5,724
Crossbucks.....	18,128	35,714	19,083	17,451	5,889	4,868	2,128	3,951	107,212
Stop signs.....	116	275	208	126	45	33	14	48	865
Other signs.....	184	201	96	107	22	23	5	29	667
No signs or signals.....	3,332	3,093	1,233	953	292	237	82	214	9,436
Total.....	28,427	51,612	30,167	31,359	12,063	11,566	5,747	11,012	181,953



**TABLE 54. TOTAL CROSSINGS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC**

Trains	Average annual daily traffic						Total
	1-250	251-500	501-1,000	1,001-5,000	5,001-10,000	> 10,000	
<1	12,185	3,379	3,153	6,285	2,016	1,409	28,427
1-2	26,451	5,912	5,352	9,337	2,703	1,857	51,612
2-3	14,551	3,583	3,162	5,864	1,765	1,242	30,167
6-10	14,647	3,729	3,483	6,303	1,878	1,319	31,359
11-15	5,464	1,320	1,308	2,621	782	568	12,063
16-20	5,024	1,320	1,361	2,476	822	563	11,566
21-25	2,243	663	620	1,405	483	333	5,747
>25	4,553	1,154	1,167	2,505	958	675	11,012
Total	85,118	21,060	19,606	36,796	11,407	7,966	181,953



**FIGURE 34. CROSSINGS BY NUMBER OF TRAINS PER DAY AND ANNUAL AVERAGE DAILY TRAFFIC (AADT)**

TRAIN SPEED DATA

TABLE 55. TOTAL CROSSINGS BY MAXIMUM TIMETABLE SPEED

<u>Timetable Speed</u>	<u>Crossings</u>
1-5	7,044
6-10	31,508
11-15	11,121
16-20	14,377
21-25	22,667
26-30	19,431
31-35	11,993
36-40	19,043
41-45	3,927
46-50	15,653
51-55	3,500
56-60	9,439
61-65	1,151
66-70	4,989
71-75	473
76-80	4,859
81-85	4
86-90	539
91-95	1
96-100	8
>100	226
Total	181,953

TABLE 56. TOTAL CROSSINGS BY TYPICAL TRAIN SPEED VARIATION

<u>Speed Variation</u>	<u>Crossings</u>
<1	15,266
1-5	46,422
6-10	43,664
11-15	19,244
16-20	17,272
21-25	10,528
26-30	9,408
31-35	4,840
36-40	4,595
41-45	2,321
46-50	3,480
51-55	813
56-60	2,039
61-65	720
66-70	287
71-75	209
76-80	644
81-85	10
86-90	2
91-95	---
96-100	---
>100	189
Total	181,953

NOTE: Typical speed variation is the difference between normal maximum speed and normal minimum speed.

TABLE 57. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC

AADT	Crossings
1-100	60,296
101-200	16,901
201-300	13,489
301-400	7,653
401-500	7,839
501-600	5,044
601-700	3,512
701-800	4,424
801-900	2,688
901-1,000	3,938
1,001-2,000	16,692
2,001-3,000	9,280
3,001-4,000	5,877
4,001-5,000	4,947
5,001-6,000	3,189
6,001-7,000	2,402
7,001-8,000	2,334
8,001-9,000	1,686
9,001-10,000	1,796
10,001-20,000	6,264
>20,000	1,702
Total	181,953

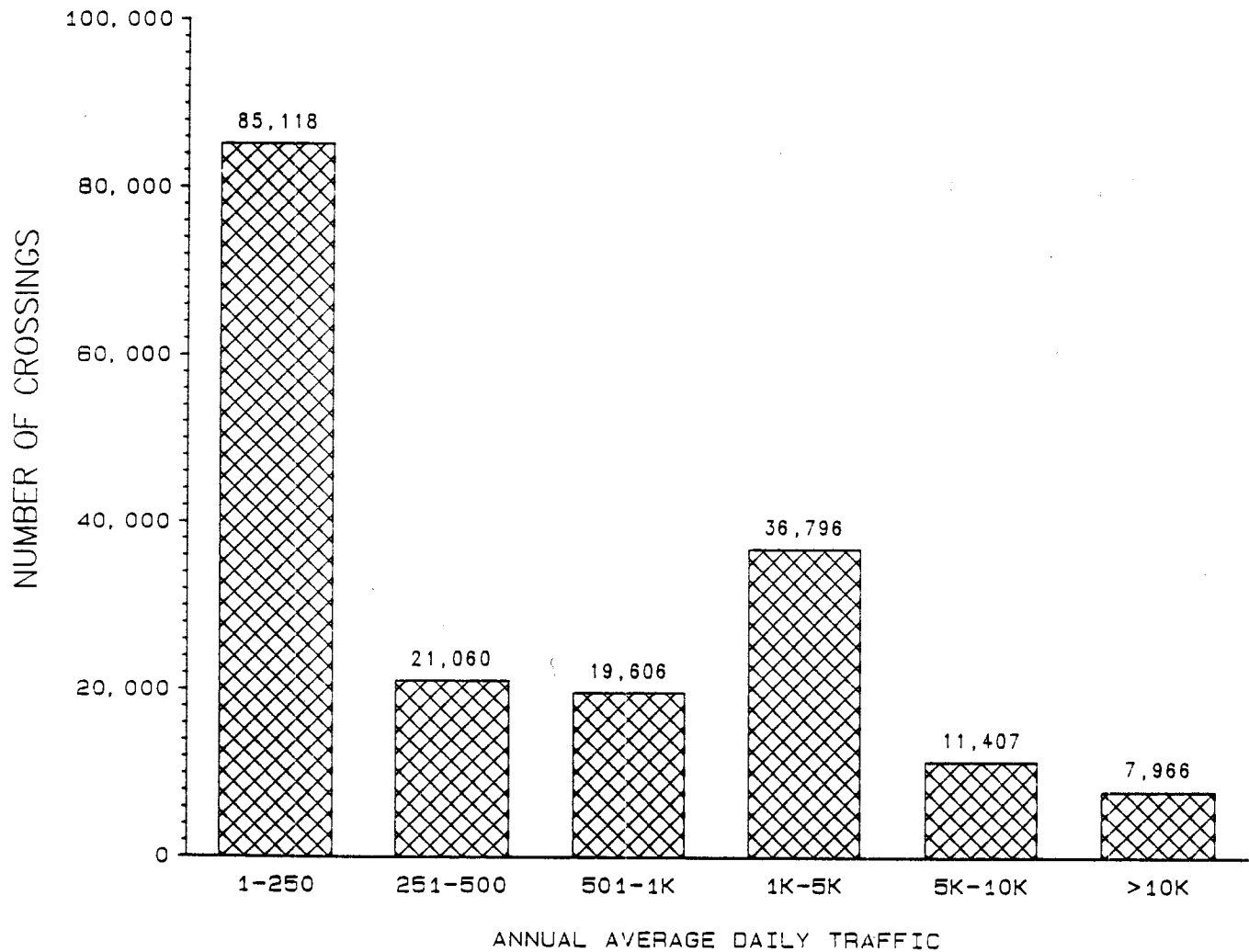
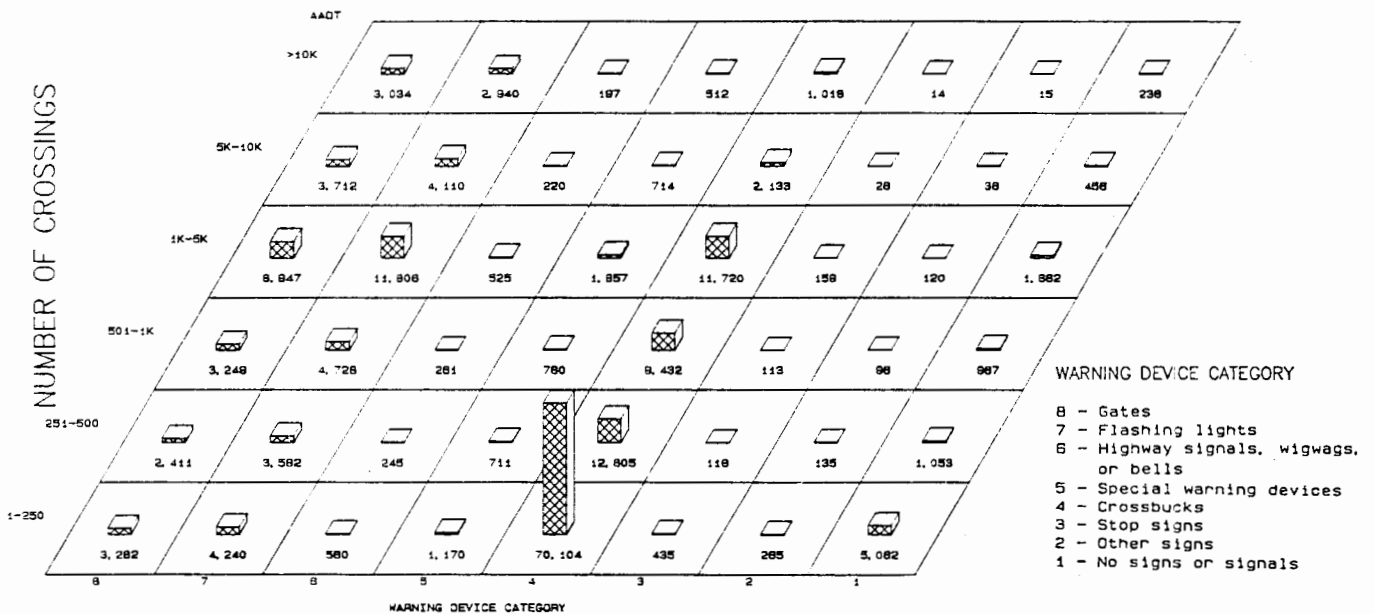


FIGURE 35. CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC

**TABLE 58. TOTAL CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC AND WARNING DEVICE CATEGORY**

Warning device	ANNUAL AVERAGE DAILY TRAFFIC						Total
	1-250	251-500	501-1,000	1,001-5,000	5,001-10,000	> 10,000	
Gates.....	3,282	2,411	3,249	8,947	3,712	3,034	24,635
Flashing lights.....	4,240	3,582	4,728	11,806	4,110	2,940	31,406
Hwy. signals, wigwags, bells	560	245	261	525	220	197	2,008
Special warning devices.....	1,170	711	760	1,857	714	512	5,724
Crossbucks.....	70,104	12,805	9,432	11,720	2,133	1,018	107,212
Stop signs.....	435	118	113	159	26	14	865
Other signs.....	265	135	96	120	36	15	667
No signs or signals.....	5,062	1,053	967	1,662	456	236	9,436
Total.....	85,118	21,060	19,606	36,796	11,407	7,966	181,953



**FIGURE 36. CROSSINGS BY ANNUAL AVERAGE DAILY TRAFFIC AND WARNING DEVICE CATEGORY**

**TABLE 59. TOTAL CROSSINGS BY TRUCK TRAFFIC AS A PERCENTAGE OF ANNUAL AVERAGE DAILY TRAFFIC**

%	Crossings
<1	7,146
1-5	77,675
6-10	60,270
11-15	17,071
16-20	8,891
21-25	2,326
26-30	5,482
31-35	382
36-40	1,076
41-45	133
46-50	1,014
51-55	22
56-60	158
61-65	8
66-70	58
71-75	100
76-80	71
81-85	6
86-90	53
91-95	2
96-99	9
Total	181,953

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**TABLE 60. TOTAL CROSSINGS BY CROSSING SURFACE**

State	Section Timber	Full Wood Plank	Asphalt	Concrete Slab	Concrete Pavement	Rubber	Metal Sections	Other Metal	Unconsol- idated	Other
Alabama	168	426	3,404	2	1	15	2	1	527	6
Alaska	11	102	55	17	0	35	0	0	2	0
Arizona	99	267	477	0	2	54	0	0	72	1
Arkansas	615	246	1,807	2	8	10	2	2	745	4
California	919	1,356	5,951	27	32	39	0	0	146	15
Colorado	681	410	769	1	4	72	8	30	247	18
Connecticut	107	5	330	4	2	45	2	0	3	3
Delaware	16	7	194	2	9	17	0	0	5	0
Dist Of Columbia	6	1	25	0	5	0	0	0	0	0
Florida	1,258	54	2,189	301	34	200	8	1	119	41
Georgia	130	128	5,843	21	17	1	1	1	585	2
Hawaii	0	0	6	0	0	0	0	0	0	0
Idaho	178	976	498	1	0	13	0	0	101	15
Illinois	1,898	1,319	5,689	33	35	549	8	8	1,351	18
Indiana	1,555	260	5,271	7	17	262	9	3	355	5
Iowa	100	1,288	2,752	4	14	167	1	2	1,730	51
Kansas	2,499	1,816	1,475	3	9	48	8	1	2,835	14
Kentucky	401	364	1,834	4	13	41	2	3	653	0
Louisiana	795	634	1,914	4	11	497	1	19	568	0
Maine	57	243	633	0	0	9	0	0	7	2
Maryland	175	61	457	0	11	52	1	0	22	3
Massachusetts	64	29	1,004	8	0	76	1	0	15	0
Michigan	1,857	738	2,819	11	11	267	171	0	447	9
Minnesota	118	2,994	2,188	21	8	157	0	2	332	14
Mississippi	147	300	1,441	2	3	75	1	1	599	1
Missouri	1,417	516	2,046	10	5	60	3	1	1,243	19
Montana	13	1,246	314	16	1	3	0	3	23	24
Nebraska	935	749	759	5	41	53	2	2	1,726	17
Nevada	53	55	97	15	1	16	0	1	47	7
New Hampshire	12	59	427	1	0	7	0	0	6	1
New Jersey	162	13	1,523	13	21	48	0	14	82	34
New Mexico	506	153	51	0	2	9	0	0	99	0
New York	501	170	2,394	10	15	196	0	1	101	9
North Carolina	23	47	4,542	8	12	3	2	1	324	7
North Dakota	58	3,865	519	30	2	22	0	3	444	10
Ohio	2,472	208	5,533	12	28	72	0	10	321	14
Oklahoma	1,650	501	1,190	9	15	32	1	6	1,416	11
Oregon	555	83	1,569	3	19	18	1	0	70	312
Pennsylvania	985	77	4,005	61	250	62	2	16	375	4
Rhode Island	1	1	79	0	10	36	0	1	0	0
South Carolina	45	17	3,402	54	9	0	3	1	276	6
South Dakota	9	1,456	481	1	1	101	0	0	93	54
Tennessee	173	331	2,989	7	2	20	2	9	487	5
Texas	4,918	1,144	4,932	89	107	176	5	19	2,187	5
Utah	246	225	482	8	7	13	3	3	90	3
Vermont	39	42	355	0	1	10	0	0	79	0
Virginia	245	57	1,995	6	3	4	6	10	144	22
Washington	83	1,407	1,492	111	7	59	1	0	36	1
West Virginia	1,006	12	931	3	5	8	0	1	441	2
Wisconsin	147	428	4,433	9	36	112	5	0	355	1
Wyoming	41	215	146	1	1	26	0	0	132	7
Puerto Rico	0	0	22	0	0	0	0	0	2	0
FINAL TOTALS	30,149	27,101	95,733	957	847	3,867	262	176	22,065	796

**TABLE 61. TOTAL CROSSINGS BY MAXIMUM TIME TABLE SPEED, WARNING DEVICE CATEGORY AND NUMBER OF TRACKS**

SINGLE TRACK WARNING DEVICES	MAXIMUM TIME TABLE SPEED												TOTAL
	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	
GATES.....	1005	1405	1858	1745	1460	1006	950	550	27	4	2	0	10012
FLASHING LIGHTS.....	4253	3500	5468	3916	2568	1319	338	261	18	0	0	0	21641
HWY. SIGNALS, HIGHAGS, BELLS	410	213	267	178	74	63	9	10	3	0	1	0	1228
SPECIAL WARNING DEVICES.....	2753	686	326	108	57	32	14	24	12	2	0	0	4014
CROSSBUCKS.....	15261	10218	21980	16373	8876	5575	1359	1419	182	0	1	0	81244
STOP SIGNS.....	218	98	148	87	38	11	15	6	0	0	0	0	621
OTHER SIGNS.....	201	119	94	20	17	1	2	4	0	0	0	0	458
NO SIGNS OR SIGNALS.....	3607	1419	1078	485	311	140	55	54	4	0	0	0	7153
TOTAL.....	27708	17658	31219	22912	13401	8147	2742	2328	246	6	4	0	126371
MULTIPLE TRACKS WARNING DEVICES	MAXIMUM TIME TABLE SPEED												TOTAL
	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	
GATES.....	921	1511	2359	2322	2135	1905	1731	1613	123	2	1	0	14623
FLASHING LIGHTS.....	1782	1549	2336	1694	1095	725	318	253	13	0	0	0	9765
HWY. SIGNALS, HIGHAGS, BELLS	197	125	173	94	57	52	58	17	7	0	0	0	780
SPECIAL WARNING DEVICES.....	1095	279	176	58	29	47	9	12	4	1	0	0	1710
CROSSBUCKS.....	5685	3794	5495	3801	2746	1990	1232	1075	150	0	0	0	25968
STOP SIGNS.....	110	37	47	12	16	7	11	4	0	0	0	0	244
OTHER SIGNS.....	61	74	37	20	13	2	2	0	0	0	0	0	209
NO SIGNS OR SIGNALS.....	1214	471	256	123	88	64	37	30	0	0	0	0	2283
TOTAL.....	11065	7840	10879	8124	6179	4792	3398	3004	297	3	1	0	55582
ALL CROSSINGS WARNING DEVICES	MAXIMUM TIME TABLE SPEED												TOTAL
	00-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	101-110	>110	
GATES.....	1926	2916	4217	4067	3595	2911	2681	2163	150	6	3	0	24635
FLASHING LIGHTS.....	6035	5049	7804	5610	3663	2044	656	514	31	0	0	0	31406
HWY. SIGNALS, HIGHAGS, BELLS	607	338	440	272	131	115	67	27	10	0	1	0	2008
SPECIAL WARNING DEVICES.....	3848	965	502	166	86	79	23	36	16	3	0	0	5724
CROSSBUCKS.....	20946	14012	27475	20174	11622	7565	2591	2494	332	0	1	0	107212
STOP SIGNS.....	328	135	195	99	54	18	26	10	0	0	0	0	865
OTHER SIGNS.....	262	193	131	40	30	3	4	4	0	0	0	0	667
NO SIGNS OR SIGNALS.....	4821	1890	1334	608	399	204	92	84	4	0	0	0	9436
TOTAL.....	38773	25498	42098	31036	19580	12939	6140	5332	543	9	5	0	181953

## APPENDIX A: REPORTING REQUIREMENTS AND DEFINITIONS

### ACCIDENT/INCIDENT REPORTABILITY REQUIREMENTS

The rules governing monthly reporting of railroad accidents/incidents in effect in 1988 define a reportable accident/incident as an event arising from the operation of a railroad that results in one or more stated circumstances.

- (a) An impact occurs between railroad on-track equipment and an automobile, bus, truck, motorcycle, bicycle, farm vehicle, pedestrain or other highway user at a rail-highway crossing.
- (b) Any collision, derailment, fire, explosion, act of GOD or other event involving the operation of railroad on-track equipment (standing or moving) which results in more than \$5,200 in damages to railroad on-track equipment, signals, track and/or track structures, and roadbed.
- (c) Any event arising from the operation of a railroad which results in:
  - (i) death of one or more persons;
  - (ii) injury to one or more persons, other than railroad employees, requiring medical treatment;
  - (iii) injury to one or more employees requiring medical treatment or resulting in restriction of work or motion for one or more days, one or more lost work days, transfer to another job, termination of employment or loss of consciousness;
  - (iv) any occupational illness of railroad employee diagnosed by a physician.

### DEFINITIONS

Annual average daily traffic. An estimate of the annual average daily highway traffic in both traffic directions.

Active warning devices. A warning system activated by an approaching train: gates, flashing lights, highway signal, wigwags, or bells.

Car. A railway car designed to carry freight, railroad personnel, or passengers. This includes boxcars, covered hopper cars, flatcars, refrigerator cars, gondola cars, hopper cars, tank cars, cabooses, stock cars, ventilation cars, and special cars. Also includes on-track maintenance equipment.

Class I railroad. A railroad with an annual gross operating revenue in excess of \$50 million based on 1978 dollars.



Class II railroad. A railroad with an annual gross operating revenue of between \$10 and \$50 million based on 1978 dollars.

Class III railroads. All switching and terminal companies, and all railroads with annual operating revenues of less than \$10 million based on 1978 dollars.

Commercial power. A source of commercial power within 500 feet of a crossing.

Consist. On-track railroad equipment such as a train, locomotive, group of railroad cars, or a single railcar not coupled to another car or to a locomotive.

Contractor employee. A person employed by a contractor hired by a railroad to perform normal maintenance work to railroad rolling stock, track structure, bridges, buildings, etc.

Crossing surfaces.

1. Sectional treated timber. Prefabricated units approximately eight feet long, made of treated timber, individually installed, and removable for maintenance and replacement purpose.

2. Full wood plank. A wood surface, other than sectional treated timber, covering the entire crossing area above crossties.

3. Asphalt. A surface over the entire crossing area or the area between planks or other material which forms flangeway openings with or without single planks on the outside of running rails.

4. Concrete slab. Precast concrete slabs which are installed and individually removable for maintenance and replacement.

5. Concrete pavement. A continuous concrete surface over the track area which cannot be removed except by destruction of the surface.

6. Rubber slabs. Preformed rubber sections which can be installed and removed individually for maintenance and replacement.

7. Metal sections. Preformed sections of steel or other metal which can be individually installed and removed for maintenance and replacement.

8. Other metal. A crossing area completed with covered rails or other permanent metal materials in limited sectional units.

9. Unconsolidated. Ballast or other unconsolidated material placed above the tops of crossties with or without planks on one or both sides of running rail.

Daylight train movements. Train movements between 6 a.m. and 6 p.m.

Employee. A person engaged in railroad operations who works for a railroad company in return for financial or other compensation.

Employee not on duty. A railroad employee who is on railroad property for a purpose connected with his employment or with other railroad permission, but who is not engaged in rail operations for financial or other compensation.

Fatality. The death of a person resulting from an injury incurred during railroad operations or resulting from an occupational illness if death occurs within 365 days of initial diagnosis.

Flashing lights. Cantilevered flashing lights, mast mounted flashing lights, and other flashing lights not conforming with the latest "Manual on Uniform Traffic Control Devices" (MUTCD).

Highway signals. Train-activated highway lights (red-amber-green) that control highway traffic over the crossing.

Locomotive. A self-propelled unit of on-track equipment designed for moving other rail freight and passenger equipment on rail tracks, including self-propelled units.

Main track. Any track other than auxiliary track that extends through railroad yards or between stations and over which trains operate by time-table and/or train orders or the use of the track is governed by a signal system.

Maximum timetable speed. Maximum train speed permitted over a crossing.

Nearby intersecting highway. A highway intersection within 75 feet of the crossing.

Night train movements. Train movements between 6 p.m. and 6 a.m.

Non-trespasser. A person who is lawfully on any part of railroad property which is used in railroad operations or a person who is adjacent to railroad premises when injured as the result of railroad operations.

Number of crossbucks. Masts with crossbucks; a mast with two or more crossbucks is counted as one. A crossbuck on an active device is not counted.

On-track equipment. Railroad rolling stock used to transport freight or passenger. It includes locomotives, railroad cars, maintenance equipment, and one or more locomotives coupled to one or more cars.

Other signs. Signs other than crossbucks or stop signs.

Other stop signs. Stop signs other than standard highway stop signs.

Passenger. A person who is on, boarding, or alighting from a railroad car for the purpose of travel, without participating in its operation.

Passive warning device. A warning system not automatically activated by an approaching train: signs (crossbucks or standard highway signs) or special warning devices (manually operated gates, flood lights, etc.).

Pavement markings. Markings prescribed or generally similar to those in highway traffic manuals, in particular, stoplines and railroad crossing symbols.

Percentage trucks. The percentage of total daily highway traffic represented by trucks.

Public crossing. A location open to public travel where railroad tracks cross a road that is under the jurisdiction and maintenance of a public authority.

Rail-highway crossing. A location where one or more railroad tracks intersect a public or private thoroughfare, a side walk, or a pathway.

Railroad. Any surface transportation system which carries passengers, goods, materials, or property over rails.

Railroad advance warning. Advance warning signs on any highway approach.

Rural crossing. A crossing classification derived from the Functional Classification Code.

Signals for train operation. Automatic signals or interlocks which control train operations in the vicinity of a crossing.

Smallest crossing angle. The smallest angle between the highway and the track.

Special warning devices. Non-train-activated devices other than signs including manually operated gates, train crews flagging a crossing, watchmen, and flood lights.

Speed selection for trains. A uniform warning time for the speed range of trains normally encountered at the crossing.

Standard highway stop sign. Octagonal red sign with white lettering STOP.

Stop signs. The standard highway stop sign or other stop signs.

Switch trains. All trains other than thru trains, including locals, industrial runs, and switch engines.

Thru trains. Trains whose primary responsibility is to move cars over the road; they may have a limited number of pickups and setouts along the route.

Total train movements. All train movements for the reporting company and all other railroads operating over the crossing.

Traffic lanes. Number of highway traffic lanes not including shoulders or parking lanes.

Trespasser. Any person whose presence on railroad property used in railroad operations, is prohibited or unlawful.

Truck pullout lane. A special lane designed to accommodate vehicles which are required to stop at a crossing.

Type of development.

1. Open space. An area that is undeveloped, sparsely developed, very lightly populated, or agricultural.
2. Residential. An area comprised of private residences.
3. Commercial. An area with retail stores, businesses, offices, and personal service offices.
4. Industrial. An area with manufacturing, construction, heavy products, factories, and warehouses.
5. Institutional. An area with schools, churches, hospitals, parks, and other community facilities.

Urban crossing. A crossing classification derived from the Functional Classification Code.

Warning device category. At crossings which have more than one warning device, the warning category is determined by the following method:

Highest	8)	Gates <sup>1</sup>
	7)	Flashing lights <sup>1</sup>
	6)	Highway signals, wigwags or bells
	5)	Special warning devices
	4)	Crossbucks
	3)	Stop signs
	2)	Other signs
Lowest	1)	No signs or signals

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<sup>1</sup>When cantilevered flashing lights are categorized separately, they are ranked eighth and gates are ranked ninth.

## APPENDIX B: REPORTING FORMS

### FORMS

Three separate forms may be required to properly report a rail-highway crossing accident/incident:

- FRA F 6180-57 Grade Crossing Accident/Incident Report
- FRA F 6180-55 Railroad Injury and Illness Summary
- FRA F 6180-54 Rail Equipment Accident/Incident Report

For all reportable rail-highway crossing accidents/incidents, Form FRA F 6180-57 must be submitted by the carrier which has on-track equipment involved. If reportable casualties result, they must be individually reported on Form F 6180-55. If the accident resulted in more than \$5,200 in damages to railroad on-track equipment, signals, track, track structures, or roadbed, Form FRA 6180-54 must also be submitted.

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION  
**RAILROAD INJURY AND ILLNESS SUMMARY**

Form Approved  
OMB No. 04-R4009

1. NAME OF REPORTING RAILROAD	2. ALPHABETIC CODE	3. REPORT MONTH & YEAR	4. STATE ALPHABETIC CODE	5. COUNTY
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NAME OF REPORTING OFFICER	OFFICIAL TITLE
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ADDRESS	TELEPHONE (Area Code) (Number)
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6. I, \_\_\_\_\_, being first duly sworn, do say upon my oath that I am \_\_\_\_\_, of the railroad aforesaid and as such officer of the said railroad it is my duty to have supervision over the record of reportable incidents arising from the operation of the said railroad, and that I have caused to be compiled from the said record and to be carefully examined the annexed report of such incidents occurring during the month named at the head of this sheet; and that the said report is true and complete to the best of my knowledge and belief.

Subscribed and sworn to before me, a notary public in and for the State and County aforesaid, this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

(Use an impression seal) \_\_\_\_\_  
[L.S] \_\_\_\_\_  
\_\_\_\_\_ (Notary Public) \_\_\_\_\_ (Signature of affiant)

7. MILES RUN DURING MONTH			
A. LOCOMOTIVE TRAIN MILES	B. MOTOR TRAIN MILES	C. YARD SWITCHING MILES	D. TOTAL

8. A. EMPLOYEE MANHOURS WORKED	B. PASSENGER MILES OPERATED	C. NUMBER OF PASSENGERS TRANSPORTED
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TOTAL TRAIN ACCIDENTS	TOTAL FRA FORMS 6180-53A	TOTAL FRA FORMS 6180-54	TOTAL FRA FORMS 6180-57
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SECTION A--RECAPITULATION OF ALL CASUALTIES INCLUDING HIGHWAY GRADE CROSSING ACCIDENT/INCIDENT CASUALTIES								CLASS OF PERSON FOR SECTIONS A AND B	SECTION B--RECAPITULATION OF ALL HIGHWAY GRADE CROSSING ACCIDENT/INCIDENT CASUALTIES							
TRAIN ACCIDENTS		TRAIN INCIDENTS		NONTRAIN INCIDENTS		TOTAL			TRAIN ACCIDENTS		TRAIN INCIDENTS		NONTRAIN INCIDENTS		TOTAL	
Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj		Kld	Inj	Kld	Inj	Kld	Inj	Kld	Inj
								1. Employees on duty								
								2. Employees not on duty								
								3. Passengers on trains								
								4. Other nontrespassers								
								5. Trespassers (all classes)								
								6. Contractor Employees								
								7. GRAND TOTAL								

SECTION C--MEMORANDUM--SUBSEQUENT FATALITIES DEVELOPED FROM REPORTED CASUALTIES					
LINE NO.	ACCIDENT/INCIDENT NUMBER	TYPE PERSON OR JOB CODE	DATE OF INJURY	DATE OF DEATH	STATE
1.					
2.					
3.					
4.					

FORM FRA F 6180-55 (8-76) REPLACES FORM FRA F 6180-55 (12-74) WHICH IS OBSOLETE.

This report is required by law (45 USC 40). Failure to report can result in the imposition of civil penalties.



**RAIL EQUIPMENT ACCIDENT/INCIDENT REPORT**

1. NAME OF REPORTING RAILROAD <div style="text-align: right;">Amtrak Autotrain</div>		1a. Alphabetic Code	1b. Railroad Accident/Incident No.
2. NAME OF OTHER RAILROAD INVOLVED IN TRAIN ACCIDENT/INCIDENT		2a. Alphabetic Code	2b. Railroad Accident/Incident No.
3. NAME OF RAILROAD RESPONSIBLE FOR TRACK MAINTENANCE (single entry)		3a. Alphabetic Code	3b. Railroad Accident/Incident No.
4. U. S. DOT-AAR GRADE CROSSING IDENTIFICATION NUMBER		5. DATE OF ACCIDENT/INCIDENT month   day   year	
7. TYPE OF ACCIDENT/INCIDENT (enter number in code box, single entry)		6. TIME OF ACCIDENT/INCIDENT am <input type="checkbox"/> pm <input type="checkbox"/>	
1. Derailment    3. Rear end collision    5. Raking collision    7. Rail-Hwy crossing    9. Obstruction    11. Fire or violent rupture    12. Other (specify) 2. Head on collision    4. Side collision    6. Broken train collision    8. RR grade crossing    10. Explosion-Detonation		CODE	

**HAZARDOUS MATERIALS (number of)**

8. CARS CARRYING	9. CARS DAMAGED OR DERAILED	10. CARS WHICH RELEASED HAZ. MAT.	11. PEOPLE EVACUATED (est.)
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**LOCATION**

12. DIVISION	13. NEAREST STATION	14. MILEPOST (to nearest tenth)	15. STATE (two letter code)	CODE
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**ENVIRONMENTAL CONDITIONS**

16. TEMPERATURE (specify if minus) °F	17. VISIBILITY (single entry) 1. Dawn    3. Dusk 2. Day    4. Dark	CODE	18. WEATHER (single entry) 1. Clear    2. Cloudy    3. Rain    4. Fog    5. Sleet    6. Snow	CODE
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**OPERATIONAL DATA**

19. METHOD (place X in appropriate box(es))	1 <input type="checkbox"/> Manual block	4 <input type="checkbox"/> Automatic block	7 <input type="checkbox"/> Yard rules	10 <input type="checkbox"/> Auto. train control	13 <input type="checkbox"/> Other (specify)
	2 <input type="checkbox"/> Interlocking	5 <input type="checkbox"/> Traffic control	8 <input type="checkbox"/> Time table	11 <input type="checkbox"/> Verbal permission	
	3 <input type="checkbox"/> Cab signal	6 <input type="checkbox"/> Auto. train stop	9 <input type="checkbox"/> Radio	12 <input type="checkbox"/> Train orders	
20. SPEED (recorded speed, if available) Est.   MPH   Recorded		21. TRAIN NUMBER	22. TIME TABLE DIRECTION 1. North    2. South    3. East    4. West		CODE

**EQUIPMENT**

23. TRAILING TONS (gross tonnage, excluding power units)	24. TYPE OF EQUIPMENT CONSIST (single entry) 1. Freight train    3. Mixed train    5. Single car    7. Yard/switching 2. Passenger train    4. Work train    6. Cut of cars    8. Light loco(s)		CODE	25. WAS THE EQUIPMENT IDENTIFIED IN ITEM 24 UNATTENDED? 1. Yes    2. No	CODE
26. TRACK NUMBER OR NAME	27. FRA TRACK CLASSIFICATION	28. ANNUAL TRACK DENSITY (gross tons in millions)	29. TYPE OF TRACK 1. Main    3. Siding 2. Yard    4. Industry		CODE
30. PRINCIPLE CAR/UNIT (1) First Involved (derailed, struck, striking, etc.) (2) Causing (mechanical failures)	30a. Initial and Number	30b. Position in Train	30c. Loaded (yes or no)		
31. LOCOMOTIVE UNITS (no. of)	a. Head End	b. Manual	c. Remote	d. Manual	e. Remote
(1) Total in Train	32. CARS (no. of)		a. Loaded	b. Empty	e. Caboose
(2) Total Derailed	(1) Total in Equipment Consist		a. Freight	b. Pass.	c. Freight
	(2) Total Derailed		d. Pass.	d. Freight	

**PROPERTY DAMAGE (estimated cost, including labor, to repair or replace)**

33. EQUIPMENT DAMAGE (to be reported for this equipment consist only)	\$	34. TRACK, SIGNAL, WAY AND STRUCTURES DAMAGE (to be reported by railroad in item 3 only)	\$
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**ACCIDENT/INCIDENT CAUSE CODE**

35. PRIMARY CAUSE	CODE	36. CONTRIBUTING CAUSE	CODE	37. If no code available, explain cause.
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**CASUALTIES**

38. NUMBER OF PERSONS INJURED	39. ESTIMATED TOTAL DAYS DISABILITY	40. NUMBER OF FATALITIES
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**CREW (no. of)**

**HOURS ON DUTY**

41. ENGINEERS	42. FIREMEN	43. CONDUCTORS	44. BRAKEMEN	45. ENGINEER Hrs:    Mins:	46. CONDUCTOR Hrs:    Mins:
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47. TYPED NAME AND TITLE	48. SIGNATURE	49. DATE
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50. NARRATIVE DESCRIPTION - Describe the cause, nature and circumstances of accident/incident



# RAIL-HIGHWAY GRADE CROSSING ACCIDENT/INCIDENT REPORT

1. NAME OF REPORTING RAILROAD		Amtrak Autotrain	1a. Alphabetic Code	1b. Railroad Accident/Incident No.
2. NAME OF OTHER RAILROAD INVOLVED IN TRAIN ACCIDENT/INCIDENT			2a. Alphabetic Code	2b. Railroad Accident/Incident No.
3. NAME OF RAILROAD RESPONSIBLE FOR TRACK MAINTENANCE (single entry)			3a. Alphabetic Code	3b. Railroad Accident/Incident No.
4. U. S. DOT-AAR GRADE CROSSING IDENTIFICATION NUMBER			5. DATE OF ACCIDENT/INCIDENT month      day      year	6. TIME OF ACCIDENT/INCIDENT am <input type="checkbox"/> pm <input type="checkbox"/>

### LOCATION

7. NEAREST RAILROAD STATION	8. COUNTY	9. STATE (two letter code)	CODE
10. CITY (if in a city)	11. HIGHWAY NAME OR NUMBER (if private crossing, so state)		

### ACCIDENT/INCIDENT SITUATION

HIGHWAY USER INVOLVED		RAILROAD EQUIPMENT INVOLVED	
12. TYPE 1. Auto 2. Truck 3. Truck-Trailer 4. Bus 5. School Bus 6. Motorcycle 7. Pedestrian 8. Other (specify)	CODE	16. EQUIPMENT 1. Train (units pulling) 2. Train (units pushing) 3. Train (standing) 4. Car(s) (moving) 5. Car(s) (standing) 6. Light loco(s) (moving) 7. Light loco(s) (standing) 8. Other (specify)	CODE
13. SPEED (estimated mph at impact)	14. DIRECTION (geographical) 1. North 2. South 3. East 4. West	17. POSITION OF CAR/UNIT IN TRAIN	CODE
15. POSITION 1. Stalled on crossing 2. Stopped on crossing 3. Moving over crossing	CODE	18. CIRCUMSTANCE 1. Train struck highway user 2. Train struck by highway user	CODE
19. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway user      2. Rail equipment      3. Both      4. Neither			

### ENVIRONMENT

20. TEMPERATURE (specify, if minus) °F	21. VISIBILITY (single entry) 1. Dawn 2. Day 3. Dusk 4. Dark	CODE	22. WEATHER (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow	CODE
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### TRAIN AND TRACK

23. TYPE OF TRAIN 1. Freight 2. Passenger 3. Mixed 4. Work 5. Yard/Switching 6. Light Locomotive(s)	CODE	24. TRACK TYPE USED BY TRAIN INVOLVED 1. Main 2. Yard 3. Siding 4. Industry	CODE
25. TRACK NUMBER OR NAME	26. FRA TRACK CLASSIFICATION	27. NUMBER OF LOCOMOTIVE UNITS	
28. NUMBER OF CARS	29. TRAIN SPEED (recorded speed, if available) MPH      Recorded      Est	30. TIME TABLE DIRECTION 1. North 2. South 3. East 4. West	

### CROSSING WARNING

31. TYPE (place X in appropriate box(es))	1 <input type="checkbox"/> Gates 2 <input type="checkbox"/> Cantilever FLS 3 <input type="checkbox"/> Standard FLS 4 <input type="checkbox"/> Wig Wags	5 <input type="checkbox"/> Hwy. Traffic Signals 6 <input type="checkbox"/> Audible 7 <input type="checkbox"/> Crossbucks 8 <input type="checkbox"/> Stop Signs	9 <input type="checkbox"/> Watchman 10 <input type="checkbox"/> Flagged by crew 11 <input type="checkbox"/> Other (specify) 12 <input type="checkbox"/> None	32. SIGNALLED CROSSING WARNING Was the signaled crossing warning identified in item 31 operating? 1. Yes      2. No	CODE
33. LOCATION OF WARNING 1. Both sides 2. Side of vehicle approach 3. Opposite side of vehicle approach	CODE	34. CROSSING WARNING INTERCONNECTED WITH HIGHWAY SIGNALS 1. Yes      2. No      3. Unknown	CODE	35. CROSSING ILLUMINATED BY STREET LIGHTS OR SPECIAL LIGHTS 1. Yes      2. No      3. Unknown	CODE

### MOTORIST ACTION

36. MOTORIST PASSED STANDING HIGHWAY VEHICLE 1. Yes      2. No      3. Unknown	CODE	37. MOTORIST DROVE BEHIND OR IN FRONT OF TRAIN AND STRUCK OR WAS STRUCK BY SECOND TRAIN 1. Yes      2. No      3. Unknown	CODE
38. MOTORIST 1. Drove around or thru the gate      2. Stopped and then proceeded      3. Did not stop      4. Other (specify)      5. Unknown			
39. VIEW OF TRACK OBSCURED BY (primary obstruction) 1. Permanent structure      2. Standing railroad equipment      3. Passing train      4. Topography      5. Vegetation      6. Highway vehicles      7. Other (specify)      8. Not obstructed			

### HIGHWAY VEHICLE PROPERTY DAMAGE/CASUALTIES

40. HIGHWAY VEHICLE PROPERTY DAMAGE (est. dollar damage)	41. DRIVER WAS 1. Killed      2. Injured      3. Uninjured	CODE	42. WAS DRIVER IN THE VEHICLE? 1. Yes      2. No	CODE
43. TOTAL NUMBER OF OCCUPANTS KILLED	44. TOTAL NUMBER OF OCCUPANTS INJURED	45. TOTAL NUMBER OF OCCUPANTS (include driver)		

46. IS A RAIL EQUIPMENT ACCIDENT/INCIDENT REPORT BEING FILED? 1. Yes      2. No			CODE
47. TYPED NAME AND TITLE	48. SIGNATURE	49. DATE	

# U.S. DOT - AAR CROSSING INVENTORY FORM

## A. INITIATING AGENCY

RAILROAD  STATE

## C. REASON FOR UPDATE:

CHANGES IN EXISTING CROSSING DATA  
 NEW CROSSING  
 CLOSED CROSSING

## D. EFFECTIVE DATE

     /      /       
          M      D      Y

## B. CROSSING NUMBER

### Part I Location and Classification of All Crossings (Must Be Completed)

1. Railroad Operating Company <input type="text"/> 4. State <input type="text"/> 7. City <input type="text"/> 10. Street or Road Name <input type="text"/> 12. Nearest RR Timetable Station <input type="text"/> 15. Pedestrian Crossing <input type="checkbox"/> 1. at grade <input type="checkbox"/> 2. RR under <input type="checkbox"/> 3. RR over	2. Railroad Division or Region <input type="text"/> 5. County <input type="text"/> 8. Nearest City <input type="text"/> 11. RR I. D. No. <input type="text"/> 13. Branch or Line Name <input type="text"/> 16. Private Vehicle Crossing A. <input type="checkbox"/> 1. Farm <input type="checkbox"/> 2. Residential <input type="checkbox"/> 3. Recreational <input type="checkbox"/> 4. Industrial B. <input type="checkbox"/> 5. at grade <input type="checkbox"/> 6. RR under <input type="checkbox"/> 7. RR over C. <input type="checkbox"/> 8. signs-specify <input type="text"/> <input type="checkbox"/> 9. signals-specify <input type="text"/> <input type="checkbox"/> 0. none	3. Railroad Subdivision or District <input type="text"/> 6. County Map. Ref. No. <input type="text"/> 9. Highway Type and No. <input type="text"/> 14. Railroad Mile Post <input type="text"/> 17. Public Vehicle Crossing <input type="checkbox"/> 1. at grade <input type="checkbox"/> 2. RR under <input type="checkbox"/> 3. RR over
---	---	---

**DO NOT WRITE IN THIS SPACE**

State <input type="text"/>	County <input type="text"/>
City <input type="text"/>	Nearest City <input type="text"/>
RR Code <input type="text"/>	Timetable Station <input type="text"/>

### COMPLETE REMAINDER OF FORM ONLY FOR PUBLIC VEHICLE CROSSINGS AT GRADE

### Part II Detailed Information for Public Vehicular at Grade Crossing

1A. Typical Number of Daily Train Movements <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Daylight (6 AM to 6 PM)</th> <th colspan="2">Night (6 PM to 6 AM)</th> </tr> <tr> <td style="text-align: center;">thru trains <input type="text"/></td> <td style="text-align: center;">switching <input type="text"/></td> <td style="text-align: center;">thru trains <input type="text"/></td> <td style="text-align: center;">switching <input type="text"/></td> </tr> </table>	Daylight (6 AM to 6 PM)		Night (6 PM to 6 AM)		thru trains <input type="text"/>	switching <input type="text"/>	thru trains <input type="text"/>	switching <input type="text"/>	1B. Check if Less Than One Movement Per Day <input type="checkbox"/> 5 2. Speed of Train at Crossing A. Maximum timetable speed <input type="text"/> 1 B. Typical Speed Range Over Crossing from <input type="text"/> 2 to <input type="text"/> 3 mph
Daylight (6 AM to 6 PM)		Night (6 PM to 6 AM)							
thru trains <input type="text"/>	switching <input type="text"/>	thru trains <input type="text"/>	switching <input type="text"/>						

3. Type and Number of Tracks  
 main  other  If other specify  3

4. Does Another RR Operate a Separate Track at Crossing?  
 Yes  No Specify: RR  2

5. Does Another RR Operate Over Your Track at Crossing?  
 Yes  No Specify: RR  2

6. Type of Warning Device at Crossing

A. Signs

Crossbucks		Standard Highway Stop Sign <input type="text"/> 03 Number	Other Stop Signs <input type="text"/> 04 Number	Other Signs: Specify	
reflectORIZED <input type="text"/> 01 Number	non-reflectORIZED <input type="text"/> 02 Number			<input type="text"/> 05 Number	<input type="text"/> 06

B. Train Activated Devices

Gates		Cantilevered Flashing Lights		Mast Mounted Flashing Lights <input type="text"/> 13 Number	Other Flashing Lights Specify <input type="text"/> 14 Number	Highway Traffic Signals <input type="text"/> 16 Number	Wigwags <input type="text"/> 17 Number	Bells <input type="text"/> 18 Number
red & white reflectORIZED <input type="text"/> 09 Number	other colored <input type="text"/> 10 Number	over traffic lane <input type="text"/> 11 Number	not over traffic lane <input type="text"/> 12 Number					

C. Specify Special Warning Device not Train Activated  19

D. No Signs or Signals  20

7. Is Commercial Power Available?  Yes  No

8. Does Crossing Signal Provide Speed Selection for Trains?  Yes  No  N/A

9. Method of Signalling for Train Operation: Is Track Equipped with Signals?  Yes  No

### Part III Physical Data

1. Type of Development <input type="checkbox"/> 1. Open Sp. <input type="checkbox"/> 2. Res <input type="checkbox"/> 3. Comm. <input type="checkbox"/> 4. Ind. <input type="checkbox"/> 5. Inst. 2. Smallest Crossing Angle <input type="checkbox"/> 0°-29° <input type="checkbox"/> 30°-59° <input type="checkbox"/> 60°-90° 3. Number of Traffic Lanes Crossing Railroad <input type="text"/> Number 4. Are Truck Pullout Lanes Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Is Highway Paved <input type="checkbox"/> Yes <input type="checkbox"/> No 6. Pavement Markings <input type="checkbox"/> Stoplines <input type="checkbox"/> RR Xing Sym. <input type="checkbox"/> None 7. Are RR Advance Warning Signs Present? <input type="checkbox"/> Yes <input type="checkbox"/> No 8. Crossing Surface <input type="checkbox"/> 1. Sec. Timber <input type="checkbox"/> 2. Full Wd. Plank <input type="checkbox"/> 3. Asphalt <input type="checkbox"/> 4. Concrete Slab <input type="checkbox"/> 5. Concrete Pave. <input type="checkbox"/> 6. Rubber <input type="checkbox"/> 7. Metal Sections <input type="checkbox"/> 8. Other Metal <input type="checkbox"/> 9. Unconsolidated <input type="checkbox"/> 0. Other Specify	9. Does Track Run Down A Street? <input type="checkbox"/> Yes <input type="checkbox"/> No 10. Nearby Intersecting Highway? <input type="checkbox"/> Yes <input type="checkbox"/> No
---	--	--

### Part IV Highway Department Information

1. Highway System <input type="text"/>	4. Estimate AADT <input type="text"/>	I. D. Number
2. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Estimate Percent Trucks <input type="text"/>	
3. Functional Classification of Road over Crossing <input type="text"/>		

**APPENDIX C: MISCELLANEOUS DATA**

**TABLE C-1. MISCELLANEOUS DATA RECEIVED FROM THE RAIL-HIGHWAY CROSSING ACCIDENT/INCIDENT REPORTS**

TABLE C-1. MISCELLANEOUS DATA RECEIVED FROM THE RAIL-HIGHWAY CROSSING ACCIDENT/INCIDENT REPORTS

1.	IS RAIL EQUIPMENT ACCIDENT/INCIDENT REPORT BEING FILED?						
	YES	164	NO	5,657	NOT REPORTED	0	
2.	WAS DRIVER IN VEHICLE?						
	YES	5,091	NO	728	NOT REPORTED	2	
3.	DRIVER WAS:						
	KILLED	402	INJURED	1,580	UNINJURED	3,832	NOT REPORTED 7
4.	IS CROSSING WARNING INTERCONNECTED WITH HIGHWAY SIGNALS?						
	YES	385	NO	3,535	NOT REPORTED	1,062	N/A 839
5.	DIRECTION (GEOGRAPHICAL) OF HIGHWAY USER INVOLVED:						
	NORTH	1,414	SOUTH	1,423	EAST	1,557	WEST 1,386 NOT REPORTED 41
6.	TRAIN TIMETABLE DIRECTION:						
	NORTH	1,289	SOUTH	1,275	EAST	1,617	WEST 1,622 NOT REPORTED 18

**TABLE C-2. MISCELLANEOUS DATA RECEIVED FROM DOT-AAR INVENTORY FORMS**

TABLE C-2. MISCELLANEOUS DATA RECEIVED FROM DOT-AAR INVENTORY FORMS

LESS THAN ONE TRAIN PER DAY?					
YES	29,902	NO	152,041	N/R	10
DOES ANOTHER RAILROAD OPERATE A SEPARATE TRACK AT CROSSINGS?					
YES	4,576	NO	177,292	N/R	85
DOES ANOTHER RAILROAD OPERATE OVER YOUR TRACK AT CROSSING?					
YES	26,990	NO	154,854	N/R	109
IS TRACK EQUIPPED WITH ANY SIGNS OR SIGNALS?					
YES	170,907	NO	10,070	N/R	976
IS TRACK EQUIPPED WITH SIGNALS FOR TRAIN OPERATION?					
YES	55,336	NO	126,616	N/R	1
IS HIGHWAY PAVED?					
YES	127,359	NO	54,594	N/R	0
IS COMMERCIAL POWER AVAILABLE?					
YES	165,177	NO	16,738	N/R	38
DOES TRACK RUN DOWN A STREET? <sup>1</sup>					
YES	5,496	NO	174,815	N/R	1,642
NEARBY INTERSECTING HIGHWAY? <sup>1</sup>					
YES	70,516	NO	109,743	N/R	1,694
RR ADVANCE WARNING SIGNS PRESENT?					
YES	102,356	NO	79,597	N/R	0
ARE TRUCK PULLOUT LANES PRESENT?					
YES	2,315	NO	179,629	N/R	9
IS CROSSING ON STATE HIGHWAY SYSTEM?					
YES	28,458	NO	153,495	N/R	0
DOES CROSSING PROVIDE SPEED SELECTION?					
YES	9,056	NO	61,263	N/R	111,634

<sup>1</sup>NOT ON ORIGINAL INVENTORY FORM USED IN THE FIVE PILOT STATES.

N/R: NOT RECORDED  
N/A: NOT APPLICABLE

**APPENDIX D. ACCIDENTS/INCIDENTS AT PRIVATE CROSSINGS**

**TABLE D-1. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE CROSSINGS INVOLVING MOTOR VEHICLES BY STATE AND TYPE OF TRAIN**

State	---Freight---			---Passenger---			-Yard Switching			---Other---		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
Alabama.....	12	---	4	---	---	---	3	---	---	2	---	1
Alaska.....	---	---	---	---	---	---	---	---	---	---	---	---
Arizona.....	2	---	1	2	---	---	---	---	---	---	---	---
Arkansas.....	12	---	5	---	---	---	1	---	---	---	---	---
California.....	16	3	---	1	---	---	7	---	2	3	---	---
Colorado.....	4	---	1	---	---	---	1	---	---	1	---	---
Connecticut.....	1	---	1	---	---	---	---	---	---	2	---	1
Delaware.....	---	---	---	---	---	---	---	---	---	---	---	---
Dist. of Columbia	---	---	---	---	---	---	---	---	---	---	---	---
Florida.....	14	2	3	4	---	---	4	---	---	---	---	---
Georgia.....	10	---	3	---	---	---	4	---	2	3	---	1
Idaho.....	1	---	---	---	---	---	1	---	---	---	---	---
Illinois.....	15	2	14	---	---	---	2	---	---	5	1	---
Indiana.....	11	1	2	---	---	---	5	---	1	2	---	---
Iowa.....	8	---	3	---	---	---	---	---	---	---	---	---
Kansas.....	7	---	2	---	---	---	---	---	---	2	---	1
Kentucky.....	26	---	9	---	---	---	---	---	---	5	---	3
Louisiana.....	7	---	3	---	---	---	2	---	---	2	---	---
Maine.....	3	---	---	---	---	---	---	---	---	---	---	---
Maryland.....	5	---	4	---	---	---	5	---	1	1	---	---
Massachusetts....	---	---	---	1	---	---	---	---	---	---	---	---
Michigan.....	3	---	---	1	---	---	7	---	2	1	---	---
Minnesota.....	9	---	2	---	---	---	1	---	---	---	---	---
Mississippi.....	11	1	4	---	---	---	1	---	---	---	---	---
Missouri.....	18	---	7	1	---	---	1	---	---	1	---	---
Montana.....	8	3	---	---	---	---	1	---	---	---	---	---
Nebraska.....	5	---	1	---	---	---	2	---	---	1	---	---
Nevada.....	---	---	---	---	---	---	---	---	---	---	---	---
New Hampshire.....	1	---	1	---	---	---	---	---	---	---	---	---
New Jersey.....	4	1	---	3	---	4	---	---	---	2	---	1
New Mexico.....	4	1	1	---	---	---	---	---	---	---	---	---
New York.....	14	2	2	2	---	---	4	---	---	2	---	---
North Carolina...	23	---	7	1	1	---	3	---	---	1	---	---
North Dakota.....	4	1	2	---	---	---	---	---	---	1	---	---
Ohio.....	18	1	5	---	---	---	1	---	---	5	---	1
Oklahoma.....	5	---	3	---	---	---	---	---	---	---	---	---
Oregon.....	8	---	2	---	---	---	3	---	1	---	---	---
Pennsylvania.....	14	1	2	1	---	---	4	---	---	3	---	---
Rhode Island.....	---	---	---	---	---	---	---	---	---	---	---	---
South Carolina...	8	1	2	1	---	---	2	---	1	1	---	---
South Dakota.....	1	---	---	---	---	---	---	---	1	---	---	---
Tennessee.....	7	2	1	1	---	---	2	---	---	2	---	---
Texas.....	27	5	16	---	---	---	8	---	1	1	---	---
Utah.....	2	2	---	---	---	---	2	---	1	1	---	---
Vermont.....	---	---	---	---	---	---	---	---	---	1	---	---
Virginia.....	19	1	12	---	---	---	2	---	---	3	---	5
Washington.....	5	---	---	---	---	---	---	---	---	---	---	---
West Virginia....	16	1	5	---	---	---	1	---	---	2	---	---
Wisconsin.....	1	---	1	---	---	---	3	---	---	1	---	---
Wyoming.....	6	1	2	---	---	---	---	---	---	1	---	---
Unknown.....	---	---	---	---	---	---	---	---	---	---	---	---
Total.....	395	32	133	19	1	4	83	---	12	58	1	14

Note: "Other" includes mixed trains, work trains, light locomotives, single car or cut of cars

**TABLE D-2. ACCIDENTS/INCIDENTS AT PRIVATE CROSSINGS INVOLVING MOTOR VEHICLES BY STATE AND WARNING DEVICE CATEGORY**

**WARNING DEVICE CATEGORY**

State	Gates	Flashing Lights	Hwy Sig. Wiggags Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Alabama.....	---	1	1	---	7	1	---	7	17
Alaska.....	---	---	---	---	---	---	---	---	---
Arizona.....	---	---	1	---	---	---	---	3	4
Arkansas.....	---	---	---	---	3	1	---	9	13
California.....	---	5	---	1	7	9	---	5	27
Colorado.....	---	---	---	1	2	---	1	2	6
Connecticut.....	---	1	---	---	1	---	---	1	3
Delaware.....	---	---	---	---	---	---	---	---	---
Dist. of Columbia	---	---	---	---	---	---	---	---	---
Florida.....	1	---	---	1	14	---	---	6	22
Georgia.....	---	---	---	1	7	---	1	8	17
Idaho.....	---	---	---	---	---	1	---	1	2
Illinois.....	1	2	---	2	5	---	---	12	22
Indiana.....	---	1	1	3	3	1	---	9	18
Iowa.....	---	---	---	---	6	---	---	2	8
Kansas.....	---	1	---	---	4	1	---	5	9
Kentucky.....	---	---	---	---	12	---	---	19	31
Louisiana.....	---	1	1	---	6	---	---	3	11
Maine.....	---	---	---	---	---	2	1	---	3
Maryland.....	1	---	---	---	7	1	---	2	11
Massachusetts.....	---	---	---	---	---	---	---	1	1
Michigan.....	---	3	---	---	3	2	---	4	12
Minnesota.....	---	---	---	---	6	3	---	1	10
Mississippi.....	---	1	---	---	5	---	---	6	12
Missouri.....	---	---	---	---	9	1	---	11	21
Montana.....	---	---	---	---	3	2	---	4	9
Nebraska.....	1	---	---	1	---	1	1	4	8
Nevada.....	---	---	---	---	---	---	---	---	---
New Hampshire.....	---	---	---	---	1	---	---	---	1
New Jersey.....	1	1	1	1	1	---	---	4	9
New Mexico.....	---	---	---	---	2	---	---	2	4
New York.....	1	1	---	1	6	---	---	13	22
North Carolina...	---	1	---	3	10	---	---	14	28
North Dakota.....	---	---	---	---	2	---	---	3	5
Ohio.....	1	3	---	---	5	4	---	11	24
Oklahoma.....	---	1	---	---	3	---	---	1	5
Oregon.....	---	1	---	---	3	5	---	2	11
Pennsylvania.....	---	1	---	1	10	2	1	7	22
Rhode Island.....	---	---	---	---	---	---	---	---	---
South Carolina...	---	---	---	1	7	---	---	4	12
South Dakota.....	---	---	---	---	---	1	---	---	1
Tennessee.....	---	2	---	1	2	---	1	6	12
Texas.....	1	2	---	2	12	3	---	16	36
Utah.....	---	1	---	---	2	---	---	2	5
Vermont.....	---	---	---	---	---	---	---	1	1
Virginia.....	---	---	---	2	6	1	2	13	24
Washington.....	---	---	---	---	1	3	---	1	5
West Virginia....	1	3	---	1	6	---	---	8	19
Wisconsin.....	---	---	---	1	1	---	---	3	5
Wyoming.....	---	---	---	---	6	1	---	---	7
Unknown.....	---	---	---	---	---	---	---	---	---
<b>Total.....</b>	<b>9</b>	<b>33</b>	<b>5</b>	<b>24</b>	<b>196</b>	<b>46</b>	<b>8</b>	<b>234</b>	<b>555</b>

Note: "Special" are crossings protected by watchmen or members of train crew.

The totals on this table are slightly higher than those shown on other tables. The reporting rules require that when an Amtrak train is being operated by a crew of another railroad, both Amtrak and the operating carrier must make a report of an accident/incident. In all other tables these accidents/incidents are only counted once.



**TABLE D-3. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE CROSSINGS BY TYPE OF ROADWAY USER**

Type Of Vehicle	---Acc/Inc---		----Killed----		----Injured----		Fatal Acc/Inc	Injury Acc/Inc
	No.	%	No.	%	No.	%		
Automobile.....	268	45.42	18	48.65	73	42.44	16	52
Truck.....	180	30.51	11	29.73	63	36.63	9	49
Truck-trailer....	105	17.80	5	13.51	27	15.70	5	21
Bus.....	1	.17	---	---	---	---	---	---
School bus.....	---	---	---	---	---	---	---	---
Motorcycle.....	1	.17	---	---	---	---	---	---
Pedestrian.....	1	.17	1	2.70	---	---	1	---
Other.....	34	5.76	2	5.41	9	5.23	2	6
<b>Total.....</b>	<b>590</b>	<b>100.00</b>	<b>37</b>	<b>100.00</b>	<b>172</b>	<b>100.00</b>	<b>33</b>	<b>128</b>

**TABLE D-4. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE CROSSINGS INVOLVING MOTOR VEHICLES BY WARNING DEVICE CATEGORY AND MOTORIST ACTION**

Warning Device	--Drove Around-- -Or Thru Gate--			--Stopped And-- -Then Proceeded			-Did Not Stop--			----Other----			----Unknown----			-----Total-----		
	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj	A/I	Kid	Inj
Gates.....	4	---	1	---	---	---	---	---	4	---	---	---	1	---	1	9	---	2
Cantilever flashrs	---	---	---	---	---	---	4	---	3	1	---	---	---	---	---	5	---	3
Standard flashers	---	---	---	---	---	---	20	---	6	7	---	---	1	---	1	28	---	7
Hwy Sig, H W, Bells	---	---	---	---	---	---	4	---	1	1	---	---	---	---	---	5	---	1
Special Devices..	---	---	---	4	---	---	13	1	4	6	---	3	1	---	---	24	1	7
Crossbucks.....	---	---	---	13	1	2	109	12	43	66	2	10	8	---	3	196	15	58
Stopsigns.....	---	---	---	2	---	1	27	3	4	12	1	1	5	1	---	46	5	6
Other Signs.....	---	---	---	1	---	---	2	---	4	4	---	---	1	---	---	8	---	5
No Signs Or Signl	---	---	---	10	---	2	100	8	40	113	4	29	11	1	3	234	13	74
<b>Total.....</b>	<b>4</b>	<b>---</b>	<b>1</b>	<b>30</b>	<b>1</b>	<b>5</b>	<b>279</b>	<b>24</b>	<b>105</b>	<b>214</b>	<b>7</b>	<b>44</b>	<b>28</b>	<b>2</b>	<b>8</b>	<b>555</b>	<b>34</b>	<b>163</b>

Note: "Special" are crossings protected by watchmen or members of train crew.  
 "Hwy Sig" = Highway signals, H W = Highways.

**TABLE D-5. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE CROSSINGS INVOLVING MOTOR VEHICLES BY SPEED OF TRAIN, CIRCUMSTANCE, AND VISIBILITY**

**VISIBILITY**

Number Of Cars	Dawn			Day			Dusk			Dark			Total		
	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj	A/I	Kld	Inj
<b>RAIL CONSIST STRUCK HIGHWAY USER</b>															
1-9.....	3	1	---	88	6	27	3	---	1	19	1	4	113	8	32
10-19.....	2	---	1	35	2	14	1	---	---	13	1	2	51	3	17
20-29.....	1	---	---	17	2	9	2	---	---	9	---	1	29	2	10
30-39.....	---	---	---	22	5	9	2	---	---	6	---	1	30	5	10
40-49.....	1	---	---	15	---	3	2	---	1	12	---	---	30	---	4
50-59.....	1	1	2	12	---	8	1	---	---	10	1	1	24	2	11
60-69.....	1	---	---	17	3	3	1	---	---	13	---	2	32	3	5
70-79.....	---	---	---	9	---	3	1	1	---	8	---	2	18	1	5
80-89.....	---	---	---	13	---	7	3	---	1	6	---	1	22	---	9
90-99.....	2	---	---	16	1	7	---	---	---	17	---	4	35	1	11
100-109.....	1	---	---	15	3	3	---	---	---	10	---	6	26	3	9
110-119.....	---	---	---	8	2	6	2	1	1	5	---	---	15	3	7
120-129.....	---	---	---	9	---	1	---	---	---	2	---	---	11	---	1
130-139.....	---	---	---	---	---	---	---	---	---	2	---	---	2	---	---
140-149.....	---	---	---	3	---	3	---	---	---	1	---	---	4	---	3
150 And over.....	---	---	---	3	---	3	---	---	---	5	---	2	8	---	5
Locomotives only.....	1	---	---	36	---	8	1	---	1	8	---	1	46	---	10
<b>Total.....</b>	<b>13</b>	<b>2</b>	<b>3</b>	<b>318</b>	<b>24</b>	<b>114</b>	<b>19</b>	<b>2</b>	<b>5</b>	<b>146</b>	<b>3</b>	<b>27</b>	<b>496</b>	<b>31</b>	<b>149</b>
<b>HIGHWAY USER STRUCK RAIL CONSIST</b>															
1-9.....	1	---	---	9	---	3	---	---	---	5	---	---	15	---	3
10-19.....	1	---	---	2	---	---	---	---	---	6	---	1	9	---	1
20-29.....	1	---	---	3	---	1	---	---	---	2	---	---	6	---	1
30-39.....	---	---	---	---	---	---	---	---	---	2	1	---	2	1	---
40-49.....	---	---	---	---	---	---	---	---	---	1	---	---	1	---	---
50-59.....	1	---	1	2	---	1	---	---	---	2	---	2	5	---	4
60-69.....	---	---	---	1	2	---	---	---	---	1	---	---	2	2	---
70-79.....	---	---	---	2	---	1	---	---	---	2	---	---	4	---	1
80-89.....	---	---	---	2	---	---	---	---	---	1	---	1	3	---	1
90-99.....	---	---	---	1	---	1	---	---	---	2	---	---	3	---	1
100-109.....	---	---	---	3	---	---	---	---	---	---	---	---	3	---	---
110-119.....	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---
120-129.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
130-139.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
140-149.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
150 And over.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Locomotives only.....	---	---	---	3	---	1	---	---	---	2	---	1	5	---	2
<b>Total.....</b>	<b>4</b>	<b>---</b>	<b>1</b>	<b>29</b>	<b>2</b>	<b>8</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>26</b>	<b>1</b>	<b>5</b>	<b>59</b>	<b>3</b>	<b>14</b>
<b>GRAND TOTAL</b>															
1-9.....	4	1	---	97	6	30	3	---	1	24	1	4	128	8	35
10-19.....	3	---	1	37	2	14	1	---	---	19	1	3	60	3	18
20-29.....	2	---	---	20	2	10	2	---	---	11	---	1	35	2	11
30-39.....	---	---	---	22	5	9	2	---	---	8	1	1	32	6	10
40-49.....	1	---	---	15	---	3	2	---	1	13	---	---	31	---	4
50-59.....	2	1	3	14	---	9	1	---	---	12	1	3	29	2	15
60-69.....	1	---	---	18	5	3	1	---	---	14	---	2	34	5	5
70-79.....	---	---	---	11	---	4	1	1	---	10	---	2	22	1	6
80-89.....	---	---	---	15	---	7	3	---	1	7	---	2	25	---	10
90-99.....	2	---	---	17	1	8	---	---	---	19	---	4	38	1	12
100-109.....	1	---	---	18	3	3	---	---	---	10	---	6	29	3	9
110-119.....	---	---	---	9	2	6	2	1	1	5	---	---	16	3	7
120-129.....	---	---	---	9	---	1	---	---	---	2	---	---	11	---	1
130-139.....	---	---	---	---	---	---	---	---	---	2	---	---	2	---	---
140-149.....	---	---	---	3	---	3	---	---	---	1	---	---	4	---	3
150 And over.....	---	---	---	3	---	3	---	---	---	5	---	2	8	---	5
Locomotives only.....	1	---	---	39	---	9	1	---	1	10	---	2	51	---	12
<b>Total.....</b>	<b>17</b>	<b>2</b>	<b>4</b>	<b>347</b>	<b>26</b>	<b>122</b>	<b>19</b>	<b>2</b>	<b>5</b>	<b>172</b>	<b>4</b>	<b>32</b>	<b>555</b>	<b>34</b>	<b>163</b>

**TABLE D-6. ACCIDENTS/INCIDENTS AT PRIVATE CROSSINGS INVOLVING MOTOR VEHICLES BY RAILROAD AND WARNING DEVICE CATEGORY**

**WARNING DEVICE CATEGORY**

Railroad	Gates	Flashing Lights	Hwy Sig. Wigwags Bells	Special	Cross-Bucks	Stop Signs	Other Signs	No Signs Or Signals	Total
Amtrak(National Railroad Passenger Corp.)	---	---	---	---	9	---	---	5	14
Arkansas And Missouri Railroad Company...	---	---	---	---	---	1	---	---	1
Atchison, Topeka And Santa Fe Railway Co.	1	7	---	---	14	3	---	9	34
Bangor And Aroostook Railroad.....	---	---	---	---	---	1	---	---	2
Buffalo & Pittsburgh Railroad, Incorporate	---	---	---	---	---	---	1	---	1
Burlington Northern Railroad Company.....	---	4	---	2	28	11	---	28	73
Chicago & North Western Transportation Co.	---	---	---	---	---	---	---	3	3
Chicago Missouri & Western Railway.....	1	---	---	---	1	---	---	1	3
Consolidated Rail Corporation.....	2	2	---	2	18	4	1	32	61
CSX Transportation.....	3	5	1	5	50	3	3	26	96
Dakota, Minnesota & Eastern Railroad.....	---	---	---	---	---	1	---	---	1
Denver And Rio Grande Western Railroad Co.	---	---	---	---	---	---	1	---	1
Elgin, Joliet And Eastern Railway Company.	---	---	1	---	---	---	1	1	2
Florida Central Railroad.....	---	---	---	---	1	---	---	1	3
Galveston Railway Incorporated.....	---	---	---	1	---	---	---	---	1
Grand Trunk Western Railroad Company.....	---	3	---	---	2	---	---	1	6
Green Bay And Western Railroad Company....	---	---	---	1	---	---	---	---	1
Illinois Central Railroad Company.....	---	---	---	---	4	---	---	6	10
Indiana Harbor Belt Railroad Company.....	---	---	1	1	---	---	---	---	1
Kansas City Southern Railway Company.....	---	---	---	---	1	---	---	---	2
Long Island Rail Road.....	---	---	---	---	---	---	---	1	1
Louisiana & Arkansas Railway Company.....	---	---	---	---	1	---	---	---	1
Louisiana & Delta Railroad.....	---	---	---	---	1	---	---	---	1
Metro North Commuter Railroad Company.....	---	1	---	---	---	---	---	1	2
Mid South Rail Corporation.....	---	---	---	---	1	---	---	1	2
Missouri-Kansas-Texas Railroad Company....	---	---	---	---	---	---	---	1	2
Montana Rail Link.....	---	---	---	---	---	---	---	1	1
Nashville & Eastern Railroad.....	---	---	---	---	1	---	---	3	4
New Jersey Transit Rail Operations.....	1	---	1	---	---	---	---	---	1
New York, Susquehanna And Western RR.....	---	1	---	---	2	---	---	1	3
Norfolk And Portsmouth Belt Line Railroad.	---	---	---	---	1	---	---	---	3
Norfolk And Western Railway Company.....	---	3	---	2	11	4	---	28	48
Paducah & Louisville Railway Company.....	---	---	---	---	---	---	---	1	1
Port Terminal Railroad Association.....	---	---	---	1	---	---	---	2	3
Soo Line Railroad Company.....	---	---	---	---	7	1	---	1	9
South Carolina Central Railroad Co., Inc..	---	---	---	---	1	---	---	---	1
Southeastern Pennsylvania Transportation..	---	---	---	---	1	---	---	---	1
Southern Pacific Transportation Company...	---	3	1	1	6	10	---	5	26
Southern Railway Companies.....	---	1	---	4	5	---	1	44	55
Southrail Corporation.....	---	---	---	---	2	1	---	1	4
Springfield Terminal Railway Company.....	---	---	---	---	4	1	---	---	5
St. Louis Southwestern Railway Company....	---	---	---	---	13	3	---	17	33
Union Pacific Railroad Company.....	1	1	---	1	1	---	---	1	2
Wisconsin Central Ltd.....	---	---	---	---	8	2	---	7	22
All Other Railroads.....	---	2	---	3	---	---	---	---	---
Total.....	9	33	5	24	196	46	8	234	555

Note: "Special" are crossings protected by watchmen or members of train crew.  
 The totals on this table are slightly higher than those shown on other tables. The reporting rules require that when an Amtrak train is being operated by a crew of another railroad, both Amtrak and the operating carrier must make a report of an accident/incident. In all other tables these accidents/incidents are only counted once.

**TABLE D-7. ACCIDENTS/INCIDENTS AND CASUALTIES AT PRIVATE CROSSINGS BY RAILROAD**

Railroad	-----Motor Vehicle-----			----Other Highway Users----			-----Total-----		
	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured	Acc/Inc	Killed	Injured
Amtrak(National Railroad Passenger Corp.)	14	1	---	1	---	---	15	1	---
Arkansas And Missouri Railroad Company....	1	---	1	---	---	---	1	---	1
Atchison, Topeka And Santa Fe Railway Co...	34	2	7	---	---	---	34	2	7
Bangor And Aroostook Railroad.....	2	---	---	---	---	---	2	---	---
Buffalo & Pittsburgh Railroad, Incorporate	1	---	---	---	---	---	1	---	---
Burlington Northern Railroad Company.....	73	4	36	4	---	---	77	4	36
Chicago & North Western Transportation Co.	3	---	---	2	---	2	5	---	2
Chicago Missouri & Western Railway.....	3	---	1	---	---	---	3	---	1
Consolidated Rail Corporation.....	61	5	8	5	---	---	66	5	8
CSX Transportation.....	96	4	21	2	---	---	98	4	21
Dakota, Minnesota & Eastern Railroad.....	1	---	1	---	---	---	1	---	1
Denver And Rio Grande Western Railroad Co.	2	---	1	1	---	---	3	---	1
Elgin, Joliet And Eastern Railway Company.	3	---	---	---	---	---	3	---	---
Florida Central Railroad.....	1	---	---	---	---	---	1	---	---
Galveston Railway Incorporated.....	1	---	---	---	---	---	1	---	---
Grand Trunk Western Railroad Company.....	6	---	2	---	---	---	6	---	2
Green Bay And Western Railroad Company....	1	---	---	---	---	---	1	---	---
Illinois Central Railroad Company.....	10	---	2	---	---	---	10	---	2
Indiana Harbor Belt Railroad Company.....	1	---	1	---	---	---	1	---	1
Kansas City Southern Railway Company.....	2	---	1	2	---	1	4	---	2
Long Island Rail Road.....	1	---	---	---	---	---	1	---	---
Louisiana & Arkansas Railway Company.....	1	---	---	---	---	---	1	---	---
Louisiana & Delta Railroad.....	1	---	---	1	---	1	2	---	1
Metro North Commuter Railroad Company.....	2	---	1	---	---	---	2	---	1
Mid South Rail Corporation.....	2	---	1	---	---	---	2	---	1
Missouri-Kansas-Texas Railroad Company....	1	---	---	---	---	---	1	---	---
Montana Rail Link.....	4	2	---	---	---	---	4	2	---
Nashville & Eastern Railroad.....	1	1	---	---	---	---	1	1	---
New Jersey Transit Rail Operations.....	3	---	3	---	---	---	3	---	3
New York, Susquehanna And Western RR.....	3	---	3	---	---	---	3	---	3
Norfolk And Portsmouth Belt Line Railroad.	1	---	---	---	---	---	1	---	---
Norfolk And Western Railway Company.....	48	2	26	5	1	---	53	3	26
Paducah & Louisville Railway Company.....	1	---	1	---	---	---	1	---	1
Port Terminal Railroad Association.....	3	---	---	---	---	---	3	---	---
Soo Line Railroad Company.....	9	---	1	3	---	---	12	---	1
South Carolina Central Railroad Co., Inc..	1	---	1	---	---	---	1	---	1
Southeastern Pennsylvania Transportation..	1	---	---	---	---	---	1	---	---
Southern Pacific Transportation Company...	26	5	9	3	1	1	29	6	10
Southern Railway Companies.....	55	4	17	1	1	2	56	5	17
Southrail Corporation.....	1	---	---	---	---	---	1	---	---
Springfield Terminal Railway Company.....	3	---	2	---	---	---	3	---	2
St. Louis Southwestern Railway Company....	10	---	2	---	---	---	10	---	2
Union Pacific Railroad Company.....	37	4	9	4	---	2	41	4	11
Wisconsin Central Ltd.....	2	---	1	---	---	---	2	---	1
All Other Railroads.....	22	---	4	1	---	---	23	---	4
<b>Total.....</b>	<b>555</b>	<b>34</b>	<b>163</b>	<b>35</b>	<b>3</b>	<b>9</b>	<b>590</b>	<b>37</b>	<b>172</b>

Note: A/I totals on this table are slightly higher than those shown on other tables. The reporting rules require that when an Amtrak train is being operated by a crew of another railroad, both Amtrak and the operating carrier must make a report of an accident/incident. In all other tables these accidents/incidents are only counted once.

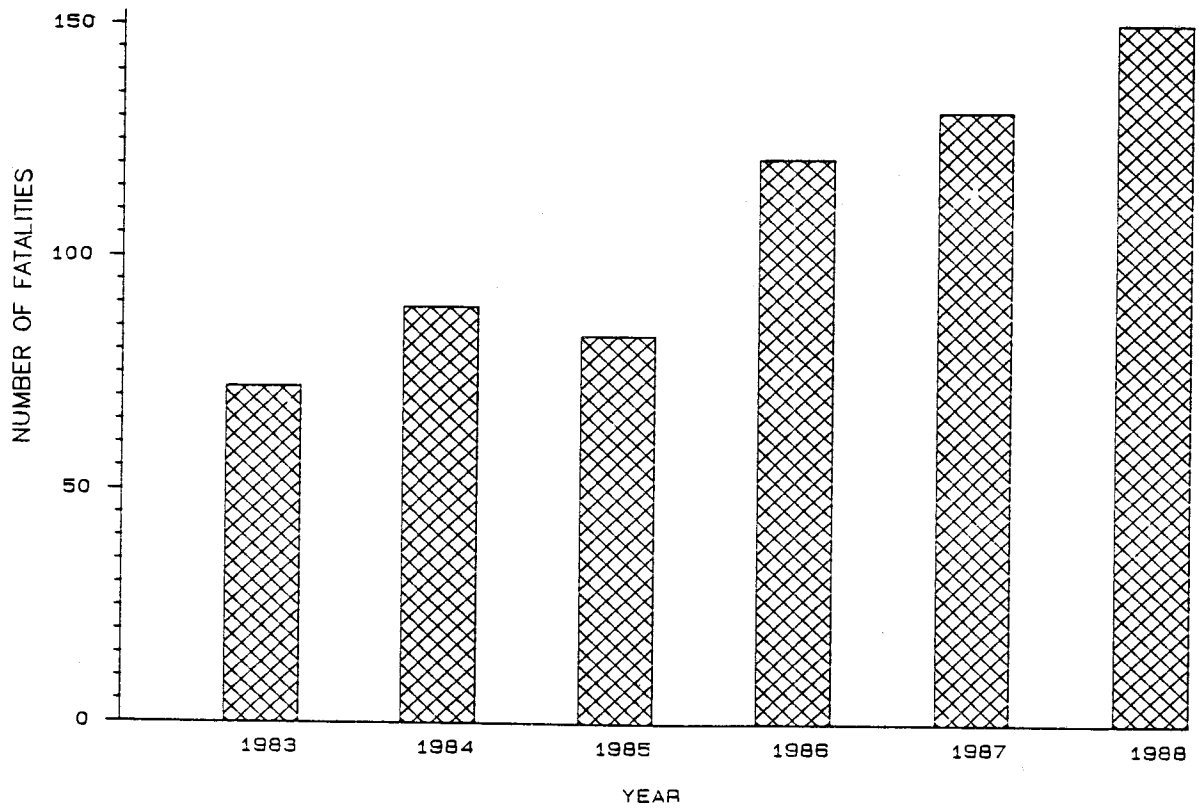
**APPENDIX E. TRESPASSER CASUALTIES**

## APPENDIX E: TRESPASSER CASUALTIES

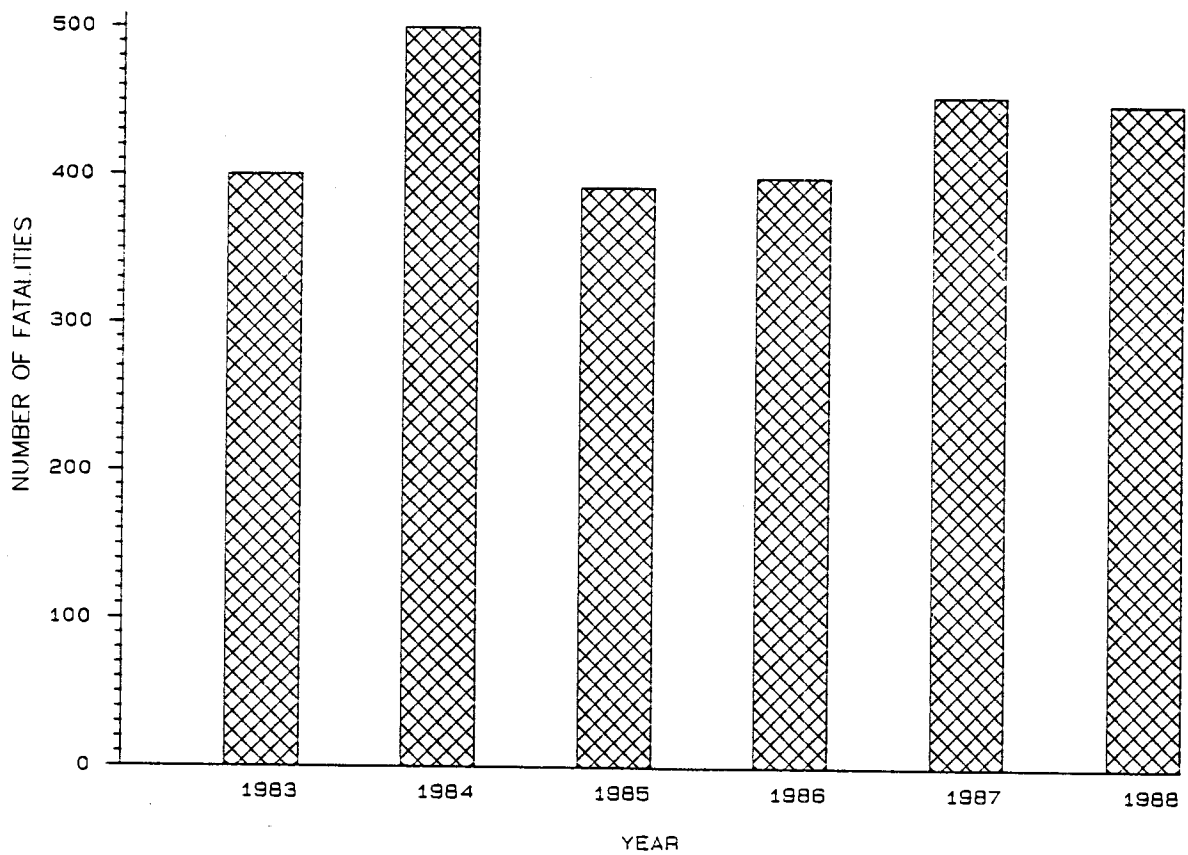
A person on a rail-highway crossing is classified as a trespasser whenever the crossing is protected by gates, or other similar barriers that were closed when the person went on the crossing. Individuals attempting to pass over, under or between rail equipment occupying a crossing are also classified as trespassers. Persons who are on a part of railroad property used in railroad operation and whose presence is prohibited, forbidden, or unlawful are identified as trespassers in other situations.

TABLE E-1. TRESPASSER CASUALTIES BY YEAR

YEAR	TOTAL KILLED	TOTAL INJURED	AT RAIL-HIGHWAY GRADE CROSSING		NOT AT RAIL-HWY GRADE CROSSING	
			KILLED	INJURED	KILLED	INJURED
1988	598	920	150	358	448	562
1987	584	673	131	227	453	446
1986	519	706	121	246	398	460
1985	474	734	83	242	391	492
1984	588	773	89	227	499	546
1983	472	683	72	187	400	496



**FIGURE 37. TRESPASSER FATALITIES AT RAIL—HIGHWAY CROSSING, BY YEAR**



**FIGURE 38. TRESPASSER FATALITIES, NOT AT RAIL-HIGHWAY CROSSING, BY YEAR**

TABLE E-2. 1988 TRESPASSER CASUALTIES BY MONTH

MONTH	TOTAL KILLED	TOTAL INJURED	AT RAIL-HIGHWAY GRADE CROSSING		NOT AT RAIL-HWY GRADE CROSSING	
			KILLED	INJURED	KILLED	INJURED
January	37	67	12	40	25	27
February	40	63	20	21	20	42
March	48	57	5	26	43	31
April	59	78	13	21	46	57
May	54	81	11	26	43	55
June	40	71	9	32	31	39
July	58	89	12	14	46	75
August	64	96	8	32	56	64
September	60	85	16	27	44	58
October	48	75	13	26	35	49
November	38	76	15	50	23	26
December	52	82	16	43	36	39
FINAL TOTAL	598	920	150	358	448	562

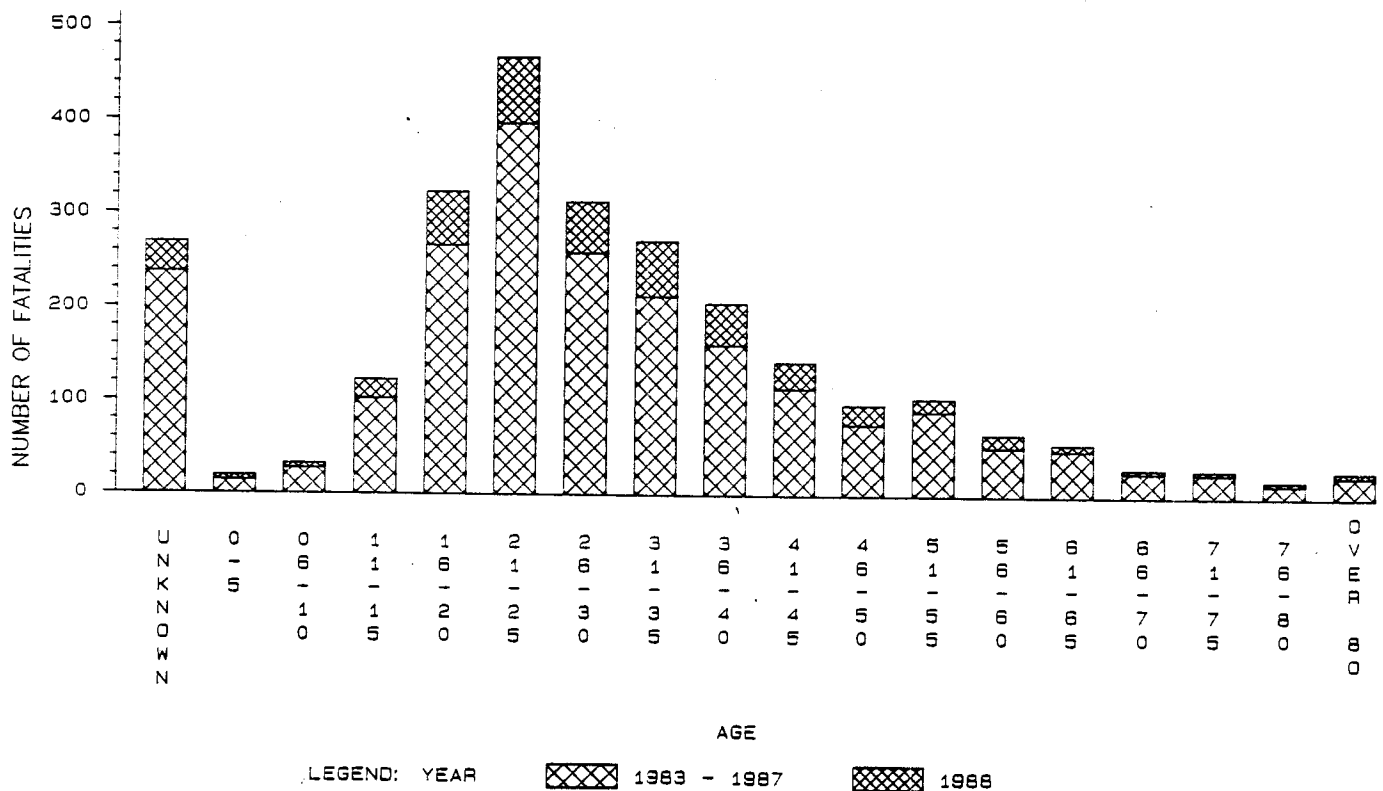


FIGURE 39. TRESPASSER FATALITIES, NOT AT RAIL-HIGHWAY CROSSINGS, BY AGE GROUP



TABLE E-3. TRESPASSER CASUALTIES BY RAILROAD

RAILROAD	TOTAL		AT RAIL-HIGHWAY		NOT AT RAIL-HMNY	
	KILLED	INJURED	GRADE	CROSSING	GRADE	CROSSING
			KILLED	INJURED	KILLED	INJURED
ATLANTIC AND EAST CAROLINA RAILWAY	---	1	---	---	---	1
ALABAMA GREAT SOUTHERN RAILROAD	2	5	---	4	2	1
ABERDEEN AND ROCKFISH RAILROAD COMPANY	---	1	---	---	---	1
AMTRAK (NATIONAL RAILROAD PASSENGER CORPORATION)	94	68	40	45	54	23
ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY	27	37	---	1	27	36
BURLINGTON NORTHERN RAILROAD COMPANY	55	61	9	11	46	50
BELT RAILWAY COMPANY OF CHICAGO	---	1	---	1	---	---
COPPER BASIN RAILWAY, INC.	---	1	---	---	---	1
CHICAGO, CENTRAL & PACIFIC RAILROAD COMPANY	---	1	---	---	---	1
CENTRAL OF GEORGIA RAILROAD COMPANY	4	2	---	---	4	2
CHICAGO MISSOURI & WESTERN RAILWAY	2	2	---	---	2	2
CINCINNATI, NEW ORLEANS & TEXAS PACIFIC RAILWAY	2	2	---	---	2	2
CHICAGO AND NORTH WESTERN TRANSPORTATION COMPANY	21	29	13	16	8	13
CONSOLIDATED RAIL CORPORATION	55	107	16	47	39	60
CAROLINA AND NORTHWESTERN RAILWAY COMPANY	1	1	---	---	1	1
CSX TRANSPORTATION	50	109	5	32	45	77
CENTRAL VERMONT RAILWAY, INC.	1	1	---	---	1	1
DELAWARE AND HUDSON RAILROAD COMPANY	1	1	---	1	1	---
DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY	1	1	---	---	1	1
ELGIN, JOLIET AND EASTERN RAILWAY COMPANY	---	1	---	---	---	1
FLORIDA EAST COAST RAILWAY COMPANY	15	35	6	24	9	11
GEORGIA NORTHEASTERN RAILROAD COMPANY	1	---	---	---	1	---
GEORGIA SOUTHERN & FLORIDA COMPANY	---	3	---	1	---	2
GRAND TRUNK WESTERN RAILROAD COMPANY	2	1	---	1	2	---
HOUSTON BELT & TERMINAL RAILWAY COMPANY	---	1	---	1	---	---
HIGH POINT, THOMASVILLE AND DENTON RAILROAD COMPAN	---	1	---	---	---	1
IOWA NORTHERN RAILWAY COMPANY	1	1	1	1	---	---
ILLINOIS CENTRAL RAILROAD COMPANY	9	6	1	---	8	6
INDIANA HARBOR BELT RAILROAD COMPANY	1	8	1	4	---	4
KANSAS CITY SOUTHERN RAILWAY COMPANY	1	2	---	---	1	2
LOUISIANA & ARKANSAS RAILWAY COMPANY	---	1	---	---	---	1
LONG ISLAND RAIL ROAD	17	28	4	5	13	23
MISSOURI-KANSAS-TEXAS RAILROAD COMPANY	5	3	---	---	5	3
METRO NORTH COMMUTER RAILROAD COMPANY	2	6	---	---	2	6
MINNESOTA VALLEY TRANSPORTATION COMPANY, INCORPORA	1	---	---	---	1	---
MONTANA RAIL LINK	1	3	---	---	1	3
MISSISSIPPI EXPORT RAILROAD COMPANY	---	1	---	---	---	1
NORTHEAST ILLINOIS REGIONAL COMMUTER RAIL CORPORAT	9	20	4	17	5	3
NEW JERSEY TRANSIT RAIL OPERATIONS	26	16	6	2	20	14
NEW ORLEANS TERMINAL COMPANY	---	1	---	---	---	1
NORFOLK AND WESTERN RAILWAY COMPANY	22	65	6	31	16	34
NORTHWESTERN PACIFIC RAILROAD COMPANY	1	1	---	---	1	1
PORT AUTHORITY TRANS HUDSON	2	2	---	---	2	2
PROVIDENCE AND WORCESTER RAILROAD COMPANY	---	1	---	---	---	1
RICHMOND, FREDERICKSBURG & POTOMAC RAILROAD COMPAN	---	2	---	---	---	2
SOUTH CAROLINA CENTRAL RAILROAD CO., INC.	---	1	---	1	---	---
SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY	---	6	---	---	---	6
SOO LINE RAILROAD COMPANY	4	22	---	6	4	16
SOUTHERN RAILWAY COMPANY	37	56	9	29	28	27
SOUTHERN PACIFIC TRANSPORTATION COMPANY	62	79	20	21	42	58
ST. LOUIS SOUTHWESTERN RAILWAY COMPANY	5	9	1	2	4	7
SPRINGFIELD TERMINAL RAILWAY COMPANY (VERMONT)	2	5	---	---	2	5
TEXAS MEXICAN RAILWAY COMPANY	1	---	---	---	1	---
UNION PACIFIC RAILROAD COMPANY	54	102	8	54	46	48
WASHINGTON CENTRAL RAILROAD COMPANY	1	---	---	---	1	---
FINAL TOTALS	598	920	150	358	448	562

TABLE E-4. TRESPASSER CASUALTIES BY STATE

STATE	TOTAL KILLED	TOTAL INJURED	AT RAIL-HIGHWAY GRADE CROSSING		NOT AT RAIL-HWY GRADE CROSSING	
			KILLED	INJURED	KILLED	INJURED
Alabama	11	19	---	5	11	14
Arizona	10	8	3	1	7	7
Arkansas	8	10	---	3	8	7
California	68	69	15	22	53	47
Colorado	5	7	---	---	5	7
Connecticut	4	8	2	1	2	7
Delaware	3	3	---	1	3	2
Dist Of Columbia	---	1	---	---	---	1
Florida	35	59	13	37	22	22
Georgia	18	26	4	9	14	17
Idaho	3	2	---	1	3	1
Illinois	55	95	27	61	28	34
Indiana	16	50	11	36	5	14
Iowa	6	14	5	10	1	4
Kansas	6	3	1	---	5	3
Kentucky	7	10	---	1	7	9
Louisiana	14	18	7	10	7	8
Maryland	7	2	---	---	7	2
Massachusetts	10	21	1	2	9	19
Michigan	10	14	2	9	8	5
Minnesota	9	16	1	3	8	13
Mississippi	6	10	2	4	4	6
Missouri	13	20	2	8	11	12
Montana	---	7	---	---	---	7
Nebraska	2	8	1	2	1	6
Nevada	3	1	1	---	2	1
New Jersey	34	33	8	7	26	26
New Mexico	8	11	1	1	7	10
New York	36	43	6	8	30	35
North Carolina	26	34	6	11	20	23
North Dakota	1	4	---	1	1	3
Ohio	22	45	9	25	13	20
Oklahoma	3	8	---	2	3	6
Oregon	10	15	---	1	10	14
Pennsylvania	22	32	3	3	19	29
Rhode Island	---	1	---	---	---	1
South Carolina	15	27	4	19	11	8
Tennessee	5	11	---	1	5	10
Texas	46	90	6	34	40	56
Utah	3	4	3	3	---	1
Vermont	1	1	---	---	1	1
Virginia	8	21	2	9	6	12
Washington	18	15	2	2	16	13
West Virginia	4	13	1	4	3	9
Wisconsin	6	9	1	1	5	8
Wyoming	1	2	---	---	1	2
FINAL TOTALS	598	920	150	358	448	562